



**REGULAR MEETING of the Board of Directors of the
Peninsula Clean Energy Authority (PCEA)
Thursday, March 28, 2019
6:30 pm**

Peninsula Clean Energy, 2075 Woodside Road,
Redwood City, CA 94061

Meetings are accessible to people with disabilities. Individuals who need special assistance or a disability-related modification or accommodation (including auxiliary aids or services) to participate in this meeting, or who have a disability and wish to request an alternative format for the agenda, meeting notice, agenda packet or other writings that may be distributed at the meeting, should contact Anne Bartoletti, Board Clerk, at least 2 working days before the meeting at abartoletti@peninsulacleanenergy.com. Notification in advance of the meeting will enable the PCEA to make reasonable arrangements to ensure accessibility to this meeting and the materials related to it. Attendees to this meeting are reminded that other attendees may be sensitive to various chemical based products.

If you wish to speak to the Board, please fill out a speaker's slip located on the tables as you enter the Board meeting room. If you have anything that you wish to be distributed to the Board and included in the official record, please hand it to a member of PCEA staff who will distribute the information to the Board members and other staff.

CALL TO ORDER / ROLL CALL

PUBLIC COMMENT

This item is reserved for persons wishing to address the Board on any PCEA-related matters that are as follows: 1) Not otherwise on this meeting agenda; 2) Listed on the Consent Agenda and/or Closed Session Agenda; 3) Chief Executive Officer's or Staff Report on the Regular Agenda; or 4) Board Members' Reports on the Regular Agenda. Public comments on matters not listed above shall be heard at the time the matter is called.

As with all public comment, members of the public who wish to address the Board are requested to complete a speaker's slip and provide it to PCEA staff. Speakers are customarily limited to two minutes, but an extension can be provided to you at the discretion of the Board Chair.

ACTION TO SET AGENDA and TO APPROVE CONSENT AGENDA ITEMS

This item is to set the final consent and regular agenda, and for the approval of the items listed on the consent agenda. All items on the consent agenda are approved by one action.

REGULAR AGENDA

1. Chair Report (Discussion)
2. CEO Report (Discussion)
3. Citizens Advisory Committee Report (Discussion)
4. Appointments to the Executive Committee and other Standing Committees (Action)
5. Approve Amendment to the JPA (Joint Powers Authority) Agreement to allow the appointment of up to two "Directors Emeritus" to the PCE Board (Section 3.1.1), and to allow the CFO to act as Treasurer (Section 3.9.3) (Action)
6. Delegate authority to the Chief Executive Officer to execute an agreement with Energy Solutions to conduct the Multi-Unit Dwelling (MUD) Low Power Electric Vehicle Charging Pilot in an amount not to exceed \$400,000 over three years (Action)
7. Briefing on San Mateo County Energy and Water Strategy (Discussion)
8. PCE Rate Change Update (Discussion)
9. Default Time of Use (TOU) Rates Overview (Discussion)
10. Board Members' Reports (Discussion)

CONSENT AGENDA

11. Authorize Agreements Between the Peninsula Clean Energy Authority and Braun Blaising for Provision of Legal Services in an amount not to exceed \$250,000 (Action)
12. Approval of the Minutes for the February 28, 2019 Meeting (Action)

INFORMATION ONLY REPORTS

13. Marketing and Outreach Report
14. Regulatory and Legislative Report
15. Local Programs Report
16. Procurement Report

Public records that relate to any item on the open session agenda for a regular board meeting are available for public inspection. Those records that are distributed less than 72 hours prior to the meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members of the Board. The Board has designated the Peninsula Clean Energy office, located at 2075 Woodside Road, Redwood City, CA 94061, for the purpose of making those public records available for inspection. The documents are also available on the PCEA's Internet Web site. The website is located at: <http://www.peninsulacleanenergy.com>.



**PENINSULA CLEAN ENERGY AUTHORITY
Board Correspondence**

DATE: March 20, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCE) Board of Directors
FROM: Jan Pepper, Chief Executive Officer
SUBJECT: CEO Report

REPORT:

PCE Staffing Update

We are pleased to announce that Doug Karpa has joined the PCE team as the Senior Regulatory Analyst. We are continuing to interview for the following positions: Manager of Distributed Energy Resource Strategy, Senior Financial Analyst, and Electric Vehicle Program Specialist. All positions are posted on the PCE website under "Join Our Team".

Rates Update

PCE will be adjusting our rates effective May 1, to coincide with PG&E's distribution rate changes that will be going into effect on May 1. More information on rate changes is found in agenda item 8.

Outreach in Merced County

A second set of outreach meetings in Merced County were held on March 21. Thanks to Rick DeGolia and Rick Bonilla for accompanying PCE staff members Charlsie Chang and Jan Pepper for these meetings. Additional outreach meetings will be scheduled in the coming weeks, and Board members are welcome to join in these meetings.



**PENINSULA CLEAN ENERGY AUTHORITY
Board Correspondence**

DATE: March 19, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: Majority Present

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Jan Pepper, CEO, Peninsula Clean Energy Authority

SUBJECT: Proposed Amendment to the JPA (Joint Powers Authority) Agreement to allow the appointment of up to two “Directors Emeritus” to the PCE Board (Section 3.1.1) and to allow the CFO to act as Treasurer (Section 3.9.3).

RECOMMENDATION: Approve an Amendment to the JPA (Joint Powers Authority) Agreement to allow the appointment of up to two “Directors Emeritus” to the PCE Board (Section 3.1.1) and to allow the CFO to act as Treasurer (Section 3.9.3).

BACKGROUND:
Article 3, Section 3.1 of Peninsula Clean Energy’s (PCE) Joint Power Authority (JPA) Agreement outlines appointments made by the Cities and County to the Board of Directors. Section 3.1 stipulates that Directors must be members of the Board of Supervisors or members of the governing board of the municipality that is the signatory to the Agreement. This section further stipulates that Alternates may be either (1) members of the Board of Supervisors or members of the governing board of the municipality that is the signatory to the Agreement or (2) staff members of the County or any such municipality.

Results of the November 2018 elections meant that PCE’s Board of Directors would lose Board members when they did not win reelection in their municipality. The Board discussed the impact of losing Directors who had served on multiple PCE committees, who had provided critical advice on projects and strategic goals, and who had industry and institutional knowledge that the Board desired to preserve.

Separately, on December 20, 2018, PCE's Board of Directors approved the appointment of Andrew Stern—Chief Financial Officer (CFO)—as Treasurer.

DISCUSSION:

On March 11, 2019, PCE's Executive Committee discussed potential options to continue the involvement and participation of former Board members and Alternates who are now considered citizens because they are no longer elected representatives of the County or municipalities. Since that meeting, counsel has completed research and provided language for an amendment to the JPA, adding section 3.1.1 to allow the Board to appoint up to two Directors Emeritus to serve with the Board of Directors.

Counsel also provided language to amend section 3.9.3 of the JPA Agreement to authorize the CFO to act as Treasurer on behalf of Peninsula Clean Energy (PCE).

RESOLUTION NO. _____

PENINSULA CLEAN ENERGY AUTHORITY, COUNTY OF SAN MATEO, STATE OF CALIFORNIA

* * * * *

RESOLUTION APPROVING AN AMENDMENT TO THE JPA (JOINT POWERS AUTHORITY) AGREEMENT TO ALLOW THE APPOINTMENT OF UP TO TWO “DIRECTORS EMERITUS” TO THE PCE BOARD (SECTION 3.1.1), AND TO ALLOW THE CFO TO ACT AS TREASURER (SECTION 3.9.3).

RESOLVED, by the Peninsula Clean Energy Authority of the County of San Mateo, State of California, that

WHEREAS, the County and municipalities of San Mateo County unanimously signed the Joint Exercise of Power Agreement Relating to and Creating the Peninsula Clean Energy Authority of San Mateo County in April and May of 2016; and

WHEREAS, each year the County Board of Supervisors and municipalities of San Mateo County have appointed staff members or elected representatives to serve as Directors or Alternates on Peninsula Clean Energy’s (PCE) Board; and

WHEREAS, PCE’s Board of Directors and Executive Committee seek to preserve continuity and institutional knowledge within the Board and its committees; and

WHEREAS, on December 20, 2018, PCE’s Board voted to approve the appointment of the current Chief Financial Officer (CFO) as PCE’s Treasurer, and therefore CFO is directing and managing PCE’s finances.

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that the Board approves an amendment to the JPA (Joint Powers Authority) Agreement to allow the appointment of up to two “Directors Emeritus” to the PCE Board (Section 3.1.1), and to allow the CFO to act as Treasurer (Section 3.9.3).

* * * * *

**JOINT EXERCISE OF POWERS AGREEMENT RELATING TO
AND CREATING THE**

PENINSULA CLEAN ENERGY AUTHORITY

OF

SAN MATEO COUNTY

This Joint Exercise of Powers Agreement, effective on the date determined by Section 2.1, is made and entered into pursuant to the provisions of Title 1, Division 7, Chapter 5, Article 1 (Sections 6500 et seq.) of the California Government Code relating to the joint exercise of powers among the Parties set forth in Exhibit B, and establishes the Peninsula Clean Energy Authority (“Authority”), is by and between the County of San Mateo (“County”) and those cities and towns within the County of San Mateo who become signatories to this Agreement, and relates to the joint exercise of powers among the signatories hereto.

RECITALS

- A. The Parties share various powers under California law, including but not limited to the power to purchase, supply, and aggregate electricity for themselves and customers within their jurisdictions.
- B. In 2006, the State Legislature adopted AB 32, the Global Warming Solutions Act, which mandates a reduction in greenhouse gas emissions in 2020 to 1990 levels. The California Air Resources Board is promulgating regulations to implement AB 32 which will require local governments to develop programs to reduce greenhouse gas emissions.
- C. The purposes for entering into this Agreement include:
 - a. Reducing greenhouse gas emissions related to the use of power in San Mateo County and neighboring regions;
 - b. Providing electric power and other forms of energy to customers at a competitive cost;
 - c. Carrying out programs to reduce energy consumption;
 - d. Stimulating and sustaining the local economy by developing local jobs in renewable energy; and
 - e. Promoting long-term electric rate stability and energy security and reliability for residents through local control of electric generation resources.
- D. It is the intent of this Agreement to promote the development and use of a wide range of renewable energy sources and energy efficiency programs, including but not limited to

solar, wind, and biomass energy production. The purchase of renewable power and greenhouse gas-free energy sources will be the desired approach to decrease regional greenhouse gas emissions and accelerate the State's transition to clean power resources to the extent feasible. The Agency will also add increasing levels of locally generated renewable resources as these projects are developed and customer energy needs expand.

- E. The Parties desire to establish a separate public agency, known as the Peninsula Clean Energy Authority, under the provisions of the Joint Exercise of Powers Act of the State of California (Government Code Section 6500 et seq.) ("Act") in order to collectively study, promote, develop, conduct, operate, and manage energy programs.
- F. The Parties anticipate adopting an ordinance electing to implement through the Authority a common Community Choice Aggregation (CCA) program, an electric service enterprise available to cities and counties pursuant to California Public Utilities Code Sections 331.1(c) and 366.2. The first priority of the Authority will be the consideration of those actions necessary to implement the CCA Program.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises, covenants, and conditions hereinafter set forth, it is agreed by and among the Parties as follows:

ARTICLE 1: DEFINITIONS AND EXHIBITS

1.1 Definitions. Capitalized terms used in the Agreement shall have the meanings specified in Exhibit A, unless the context requires otherwise.

1.2 Documents Included. This Agreement consists of this document and the following exhibits, all of which are hereby incorporated into this Agreement.

- Exhibit A: Definitions
- Exhibit B: List of the Parties
- Exhibit C: Annual Energy Use
- Exhibit D: Voting Shares
- Exhibit E: Signatures

ARTICLE 2: FORMATION OF PENINSULA CLEAN ENERGY AUTHORITY

2.1 Effective Date and Term. This Agreement shall become effective and Peninsula Clean Energy Authority shall exist as a separate public agency on February 29, 2016 or when the County of San Mateo and at least two municipalities execute this Agreement, whichever occurs later. The Authority shall provide notice to the Parties of the Effective Date. The Authority shall continue to exist, and this Agreement shall be effective, until this Agreement is terminated in accordance with Section 6.4, subject to the rights of the Parties to withdraw from the Authority.

2.2 Formation. There is formed as of the Effective Date a public agency named the Peninsula Clean Energy Authority. Pursuant to Sections 6506 and 6507 of the Act, the Authority is a public agency separate from the Parties. Pursuant to Sections 6508.1 of the Act, the debts, liabilities or obligations of the Authority shall not be debts, liabilities or obligations of the individual Parties unless the governing board of a Party agrees in writing to assume any of the debts, liabilities or obligations of the Authority. A Party who has not agreed to assume an Authority debt, liability or obligation shall not be responsible in any way for such debt, liability or obligation even if a majority of the Parties agree to assume the debt, liability or obligation of the Authority. Notwithstanding Section 7.4 of this Agreement, this Section 2.2 may not be amended unless such amendment is approved by the governing board of each Party.

2.3 Purpose. The purpose of this Agreement is to establish an independent public agency in order to exercise powers common to each Party to study, promote, develop, conduct, operate, and manage energy, energy efficiency and conservation, and other energy-related programs, and to exercise all other powers necessary and incidental to accomplishing this purpose. Without limiting the generality of the foregoing, the Parties intend for this Agreement to be used as a contractual mechanism by which the Parties are authorized to participate in the CCA Program, as further described in Section 4.1. The Parties intend that other agreements shall define the terms and conditions associated with the implementation of the CCA Program and any other energy programs approved by the Authority.

2.4 Powers. The Authority shall have all powers common to the Parties and such additional powers accorded to it by law. The Authority is authorized, in its own name, to exercise all powers and do all acts necessary and proper to carry out the provisions of this Agreement and fulfill its purposes, including, but not limited to, each of the following powers, subject to the voting requirements set forth in Section 3.7 through 3.7.5:

2.4.1 to make and enter into contracts;

2.4.2 to employ agents and employees, including but not limited to a Chief Executive Officer;

2.4.3 to acquire, contract, manage, maintain, and operate any buildings, infrastructure, works, or improvements;

2.4.4 to acquire property by eminent domain, or otherwise, except as limited under Section 6508 of the Act, and to hold or dispose of any property; however, the Authority shall not exercise the power of eminent domain within the jurisdiction of a Party over its objection without first meeting and conferring in good faith.

2.4.5 to lease any property;

2.4.6 to sue and be sued in its own name;

2.4.7 to incur debts, liabilities, and obligations, including but not limited to loans from private lending sources pursuant to its temporary borrowing powers such as Government Code Sections 53850 et seq. and authority under the Act;

2.4.8 to form subsidiary or independent corporations or entities if necessary, to carry out energy supply and energy conservation programs at the lowest possible cost or to take advantage of legislative or regulatory changes;

2.4.9 to issue revenue bonds and other forms of indebtedness;

2.4.10 to apply for, accept, and receive all licenses, permits, grants, loans or other aids from any federal, state, or local public agency;

2.4.11 to submit documentation and notices, register, and comply with orders, tariffs and agreements for the establishment and implementation of the CCA Program and other energy programs;

2.4.12 to adopt Operating Rules and Regulations; and

2.4.13 to make and enter into service agreements relating to the provision of services necessary to plan, implement, operate and administer the CCA Program and other energy programs, including the acquisition of electric power supply and the provision of retail and regulatory support services.

2.4.14 to permit additional Parties to enter into this Agreement after the Effective Date and to permit another entity authorized to be a community choice aggregator to designate the Authority to act as the community choice aggregator on its behalf.

2.5 Limitation on Powers. As required by Government Code Section 6509, the power of the Authority is subject to the restrictions upon the manner of exercising power possessed by San Mateo County.

2.6 Compliance with Local Zoning and Building Laws and CEQA. Unless state or federal law provides otherwise, any facilities, buildings or structures located, constructed, or caused to be constructed by the Authority within the territory of the Authority shall comply with the General Plan, zoning and building laws of the local jurisdiction within which the facilities, buildings or structures are constructed and comply with the California Environmental Quality Act ("CEQA").

ARTICLE 3: GOVERNANCE AND INTERNAL ORGANIZATION

3.1 Board of Directors. The governing body of the Authority shall be a Board of Directors ("Board"). The Board shall consist of 2 (two) directors appointed by the San Mateo County Board of Supervisors and 1 (one) director appointed by each City or Town that becomes a signatory to the Agreement ("Directors"). Each Director shall serve at the pleasure of the governing board of the Party who appointed such Director, and may be removed as Director by such governing board at any time. If at any time a vacancy occurs on the Board, a replacement shall be appointed to fill the position of the previous Director within 90 days of the date that such position becomes vacant. Directors must be members of the Board of Supervisors or members of the governing board of the municipality that is the signatory to this Agreement. Each Party may appoint an alternate(s) to serve in the absence of its Director(s). Alternates may be either (1) members of the Board of Supervisors or members of the governing board of the municipality that is the signatory to this

Agreement, or (2) staff members of the County or any such municipality.

3.1.1 Directors Emeritus. The Board may select up to two board directors emeritus (“Directors Emeritus”). Directors Emeritus will be selected from former directors who served on the Board with distinction and excellence. The Board may fill any vacant emeritus position(s) by a simple majority vote of Directors. The Chair may delegate the initial review of applicants and/or nominations to a committee. Directors Emeritus will serve at the pleasure of the Board for two-year terms, subject to the discretion of the Board to shorten or end a term. There shall be no limit on the number of terms held. It is the Board’s intention that Directors Emeritus receive all written notices and information provided to the Board, be permitted to attend all Board meetings, be permitted to participate in committee meetings without need for an appointment, and be encouraged to attend other PCE events. Directors Emeritus will not be counted in determining if a quorum is present, will not be entitled to hold office, and will not be entitled to vote at any Board or committee meeting. Director Emeritus status does not entitle participation in closed sessions of the Board.

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3.2 Quorum. A majority of the appointed Directors shall constitute a quorum, except that less than a quorum may adjourn from time to time in accordance with law.

3.3 Powers and Functions of the Board. The Board shall exercise general governance and oversight over the business and activities of the Authority, consistent with this Agreement and applicable law. The Board shall provide general policy guidance to the CCA Program. Board approval shall be required for any of the following actions:

- 3.3.1 The issuance of bonds or any other financing even if program revenues are expected to pay for such financing.
- 3.3.2 The hiring or termination of the Chief Executive Officer and General Counsel.
- 3.3.3 The appointment or removal of officers described in Section 3.9, subject to Section 3.9.3.
- 3.3.4 The adoption of the Annual Budget.
- 3.3.5 The adoption of an ordinance.
- 3.3.6 The approval of agreements, except as provided by Section 3.4.
- 3.3.7 The initiation or resolution of claims and litigation where the Authority will be the defendant, plaintiff, petitioner, respondent, cross complainant or cross petitioner, or intervenor; provided, however, that the Chief Executive Officer or General Counsel, on behalf of the Authority, may intervene in, become a party to, or file comments with respect to any proceeding pending at the California Public Utilities Commission, the Federal Energy Regulatory Commission, or any other administrative agency, without approval of the Board as long as such action is consistent with any adopted Board policies.
- 3.3.8 The setting of rates for power sold by the Authority and the setting of charges for

any other category of service provided by the Authority.

3.3.9 Termination of the CCA Program.

3.4 Chief Executive Officer. The Board of Directors shall appoint a Chief Executive Officer for the Authority, who shall be responsible for the day-to-day operation and management of the Authority and the CCA Program. The Chief Executive Officer may exercise all powers of the Authority, including the power to hire, discipline and terminate employees as well as the power to approve any agreement if the total amount payable under the agreement is less than \$100,000 in any fiscal year, except the powers specifically set forth in Section 3.3 or those powers which by law must be exercised by the Board of Directors.

3.5 Commissions, Boards, and Committees. The Board may establish any advisory commissions, boards, and committees as the Board deems appropriate to assist the Board in carrying out its functions and implementing the CCA Program, other energy programs and the provisions of this Agreement which shall comply with the requirements of the Ralph M. Brown Act. The Board may establish rules, regulations, policies, bylaws or procedures to govern any such commissions, boards, or committees if the Board deems appropriate to appoint such commissions, boards or committees, and shall determine whether members shall be compensated or entitled to reimbursement for expenses.

3.6 Director Compensation. Directors shall serve without compensation from the Authority. However, Directors may be compensated by their respective appointing authorities. The Board, however, may adopt by resolution a policy relating to the reimbursement by the Authority of expenses incurred by Directors.

3.7 Voting. In general, as described below in Section 3.7.3, action by the Authority Board will be taken solely by a majority vote of the Directors present. However, as described below in Section 3.7.4, upon request of a Director, a weighted vote by shares will also be conducted. When such a request is made, an action must be approved by both a majority vote of Directors present and a majority of the weighted vote by shares present. No action may be approved solely by a vote by shares. The voting shares of Directors and approval requirements for actions of the Board shall be as follows:

3.7.1. Voting Shares.

Each Director shall have a voting share as determined by the following formula: (Annual Energy Use/Total Annual Energy) multiplied by 100, where

(a) "Annual Energy Use" means, (i) with respect to the first year following the Effective Date, the annual electricity usage, expressed in kilowatt hours ("kWh"), within the Party's respective jurisdiction and (ii) with respect to the period after the anniversary of the Effective Date, the annual electricity usage, expressed in kWh, of accounts within a Party's respective jurisdiction that are served by the Authority; and

(b) "Total Annual Energy" means the sum of all Parties' Annual Energy Use. The initial values for Annual Energy Use will be designated in Exhibit C, and shall be

adjusted annually as soon as reasonably practicable after January 1, but no later than March 1 of each year. These adjustments shall be approved by the Board.

(c) The combined voting share of all Directors representing the County of San Mateo shall be based upon the annual electricity usage within the unincorporated area of San Mateo County.

For the purposes of Weighted Voting, if a Party has more than one director, then the voting shares allocated to the entity shall be equally divided amongst its Directors.

3.7.2. Exhibit Showing Voting Shares. The initial voting shares will be set forth in Exhibit D. Exhibit D shall be revised no less than annually as necessary to account for changes in the number of Parties and changes in the Parties' Annual Energy Use. Exhibit D and adjustments shall be approved by the Board.

3.7.3. Approval Requirements Relating to CCA Program. Except as provided in Sections 3.7.4 and 3.7.5 below, action of the Board shall require the affirmative vote of a majority of Directors present at the meeting.

3.7.4. Option for Approval by Voting Shares. Notwithstanding Section 3.7.3, any Director present at a meeting may demand that approval of any matter related to the CCA Program be determined on the basis of both voting shares and by the affirmative vote of a majority of Directors present at the meeting. If a Director makes such a demand with respect to approval of any such matter, then approval of such matter shall require the affirmative vote of a majority of Directors present at the meeting and the affirmative vote of Directors having a majority of voting shares present, as determined by Section 3.7.1 except as provided in Section 3.7.5.

3.7.5. Special Voting Requirements for Certain Matters.

(a) Two-Thirds and Weighted Voting Approval Requirements Relating to Sections 6.2 and 7.4. Action of the Board on the matters set forth in Section 6.2 (involuntary termination of a Party), or Section 7.4 (amendment of this Agreement) shall require the affirmative vote of at least two-thirds of Directors present; provided, however, that (i) notwithstanding the foregoing, any Director present at the meeting may demand that the vote be determined on the basis of both voting shares and by the affirmative vote of Directors, and if a Director makes such a demand, then approval shall require the affirmative vote of both at least two-thirds of Directors present and the affirmative vote of Directors having at least two-thirds of the voting shares present, as determined by Section 3.7.1; (ii) but, at least two Parties must vote against a matter for the vote to fail; and (iii) for votes to involuntarily terminate a Party under Section 6.2, the Director(s) for the Party subject to involuntary termination may not vote, and the number of Directors constituting two-thirds of all Directors, and the weighted vote of each Party shall be recalculated as if the Party subject to possible termination were not a Party.

(b) Seventy Five Percent Special Voting Requirements for Eminent Domain and

Contributions or Pledge of Assets.

(i) A decision to exercise the power of eminent domain on behalf of the Authority to acquire any property interest other than an easement, right-of-way, or temporary construction easement shall require a vote of at least 75% of all Directors.

(ii) The imposition on any Party of any obligation to make contributions or pledge assets as a condition of continued participation in the CCA Program shall require a vote of at least 75% of all Directors and the approval of the governing boards of the Parties who are being asked to make such contribution or pledge.

(iii) Notwithstanding the foregoing, any Director present at the meeting may demand that a vote under subsections (i) or (ii) be determined on the basis of voting shares and by the affirmative vote of Directors, and if a Director makes such a demand, then approval shall require both the affirmative vote of at least 75% of Directors present and the affirmative vote of Directors having at least 75% of the voting shares present, as determined by Section 3.7.1, but at least two Parties must vote against a matter for the vote to fail. For purposes of this section, "imposition on any Party of any obligation to make contributions or pledge assets as a condition of continued participation in the CCA Program" does not include any obligations of a withdrawing or terminated party imposed under Section 6.3.

3.8 Meetings and Special Meetings of the Board. The Board shall hold at least six regular meetings per year, but the Board may provide for the holding of regular meetings at more frequent intervals. The date, hour and place of each regular meeting shall be fixed by resolution or ordinance of the Board. Regular meetings may be adjourned to another meeting time. Special and Emergency Meetings of the Board may be called in accordance with the provisions of California Government Code Sections 54956 and 54956.5. Directors may participate in meetings telephonically, with full voting rights, only to the extent permitted by law. All meetings shall be conducted in accordance with the provisions of the Ralph M. Brown Act (California Government Code Sections 54950 et seq.).

3.9 Selection of Board Officers.

3.9.1 Chair and Vice Chair. The Directors shall select, from among themselves, a Chair, who shall be the presiding officer of all Board meetings, and a Vice Chair, who shall serve in the absence of the Chair. The term of office of the Chair and Vice Chair shall continue for one year, but there shall be no limit on the number of terms held by either the Chair or Vice Chair. The office of either the Chair or Vice Chair shall be declared vacant and a new selection shall be made if:

- (a) the person serving dies, resigns, or the Party that the person represents removes the person as its representative on the Board or
- (b) the Party that he or she represents withdraws from the Authority pursuant to the provisions of this Agreement.

3.9.2 Secretary. The Board shall appoint a Secretary, who need not be a member of the Board, who shall be responsible for keeping the minutes of all meetings of the Board and all other official records of the Authority.

3.9.3 Treasurer and Auditor. The Chief Financial Officer shall, among other duties, act as the Treasurer for the Authority. Unless otherwise exempted from such requirement, the Authority shall cause an independent audit to be made by a certified public accountant, or public accountant, in compliance with Section 6505 of the Act. The Treasurer shall act as the depository of the Authority and have custody of all the money of the Authority, from whatever source, and as such, shall have all of the duties and responsibilities specified in Section 6505.5 of the Act. The Treasurer shall report directly to the Board and shall comply with the requirements of treasurers of incorporated municipalities. The Board may transfer the responsibilities of Treasurer to any person or entity as the law may provide at the time. The duties and obligations of the Treasurer are further specified in Article 5.

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3.10 Administrative Services Provider. The Board may appoint one or more administrative services providers to serve as the Authority's agent for planning, implementing, operating and administering the CCA Program, and any other program approved by the Board, in accordance with the provisions of an Administrative Services Agreement. The appointed administrative services provider may be one of the Parties. An Administrative Services Agreement shall set forth the terms and conditions by which the appointed administrative services provider shall perform or cause to be performed all tasks necessary for planning, implementing, operating and administering the CCA Program and other approved programs. The Administrative Services Agreement shall set forth the term of the Agreement and the circumstances under which the Administrative Services Agreement may be terminated by the Authority. This section shall not in any way be construed to limit the discretion of the Authority to hire its own employees to administer the CCA Program or any other program.

ARTICLE 4: IMPLEMENTATION ACTION AND AUTHORITY DOCUMENTS

4.1 Preliminary Implementation of the CCA Program.

4.1.1 Enabling Ordinance. To be eligible to participate in the CCA Program, each Party must adopt an ordinance in accordance with Public Utilities Code Section 366.2(c)(12) for the purpose of specifying that the Party intends to implement a CCA Program by and through its participation in the Authority.

4.1.2 Implementation Plan. The Authority shall cause to be prepared an Implementation Plan meeting the requirements of Public Utilities Code Section 366.2 and any applicable Public Utilities Commission regulations as soon after the Effective Date as reasonably practicable. The Implementation Plan shall not be filed with the Public Utilities Commission until it is approved by the Board in the manner provided by Section 3.7.3.

4.1.3 Termination of CCA Program. Nothing contained in this Article or this Agreement shall be construed to limit the discretion of the Authority to terminate the implementation or operation of the CCA Program at any time in accordance with any applicable

requirements of state law.

4.2 Authority Documents. The Parties acknowledge and agree that the affairs of the Authority will be implemented through various documents duly adopted by the Board through Board resolution. The Parties agree to abide by and comply with the terms and conditions of all such documents that may be adopted by the Board, subject to the Parties' right to withdraw from the Authority as described in Article 6.

ARTICLE 5: FINANCIAL PROVISIONS

5.1 Fiscal Year. The Authority's fiscal year shall be 12 months commencing July 1 or the date selected by the Agency and ending June 30. The fiscal year may be changed by Board resolution.

5.2 Depository.

5.2.1 All funds of the Authority shall be held in separate accounts in the name of the Authority and not commingled with funds of any Party or any other person or entity.

5.2.2 All funds of the Authority shall be strictly and separately accounted for, and regular reports shall be rendered of all receipts and disbursements, at least quarterly during the fiscal year. The books and records of the Authority shall be open to inspection by the Parties at all reasonable times. The Board shall contract with a certified public accountant or public accountant to make an annual audit of the accounts and records of the Authority, which shall be conducted in accordance with the requirements of Section 6505 of the Act.

5.2.3 All expenditures shall be made in accordance with the approved budget and upon the approval of any officer so authorized by the Board in accordance with its Operating Rules and Regulations. The Treasurer shall draw checks or warrants or make payments by other means for claims or disbursements not within an applicable budget only upon the prior approval of the Board.

5.3 Budget and Recovery of Costs.

5.3.1 Budget. The initial budget shall be approved by the Board. The Board may revise the budget from time to time as may be reasonably necessary to address contingencies and unexpected expenses. All subsequent budgets of the Authority shall be approved by the Board in accordance with the Operating Rules and Regulations.

5.3.2 Funding of Initial Costs. The County of San Mateo has funded certain activities necessary to implement the CCA Program. If the CCA Program becomes operational, these Initial Costs paid by the County of San Mateo shall be included in the customer charges for electric services as provided by Section 5.3.3 to the extent permitted by law, and the County of San Mateo shall be reimbursed from the payment of such charges by customers of the Authority. Prior to such reimbursement, the County of San Mateo shall provide such documentation of costs paid as the Board may request. The Authority may

establish a reasonable time period over which such costs are recovered. In the event that the CCA Program does not become operational, the County of San Mateo shall not be entitled to any reimbursement of the Initial Costs it has paid from the Authority or any Party.

5.3.3 CCA Program Costs. The Parties desire that all costs incurred by the Authority that are directly or indirectly attributable to the provision of electric, conservation, efficiency, incentives, financing, or other services provided under the CCA Program, including but not limited to the establishment and maintenance of various reserves and performance funds and administrative, accounting, legal, consulting, and other similar costs, shall be recovered through charges to CCA customers receiving such electric services, or from revenues from grants or other third-party sources.

ARTICLE 6: WITHDRAWAL AND TERMINATION

6.1 Withdrawal.

6.1.1 Right to Withdraw. A Party may withdraw its participation in the CCA Program, effective as of the beginning of the Authority's fiscal year, by giving no less than 6 months advance written notice of its election to do so, which notice shall be given to the Authority and each Party. Withdrawal of a Party shall require an affirmative vote of the Party's governing board.

6.1.2 Right to Withdraw After Amendment. Notwithstanding Section 6.1.1, a Party may withdraw its membership in the Authority following an amendment to this Agreement adopted by the Board which the Party's Director(s) voted against provided such notice is given in writing within thirty (30) days following the date of the vote. Withdrawal of a Party shall require an affirmative vote of the Party's governing board and shall not be subject to the six month advance notice provided in Section 6.1.1. In the event of such withdrawal, the Party shall be subject to the provisions of Section 6.3.

6.1.3 The Right to Withdraw Prior to Program Launch. After receiving bids from power suppliers, the Authority must provide to the Parties the report from the electrical utility consultant retained by the Authority that compares the total estimated electrical rates that the Authority will be charging to customers as well as the estimated greenhouse gas emissions rate and the amount of estimated renewable energy used with that of the incumbent utility. If the report provides that the Authority is unable to provide total electrical rates, as part of its baseline offering, to the customers that are equal to or lower than the incumbent utility or to provide power in a manner that has a lower greenhouse gas emissions rate or uses more renewable energy than the incumbent utility, a Party may immediately withdraw its membership in the Authority without any financial obligation, as long as the Party provides written notice of its intent to withdraw to the Authority Board no more than fifteen days after receiving the report.

6.1.4 Continuing Financial Obligation; Further Assurances. Except as provided by

Section 6.1.3, a Party that withdraws its participation in the CCA Program may be subject to certain continuing financial obligations, as described in Section 6.3. Each withdrawing Party and the Authority shall execute and deliver all further instruments and documents, and take any further action that may be reasonably necessary, as determined by the Board, to effectuate the orderly withdrawal of such Party from participation in the CCA Program.

6.2 Involuntary Termination of a Party. Participation of a Party in the CCA program may be terminated for material non-compliance with provisions of this Agreement or any other agreement relating to the Party's participation in the CCA Program upon a vote of Board members as provided in Section 3.7.5. Prior to any vote to terminate participation with respect to a Party, written notice of the proposed termination and the reason(s) for such termination shall be delivered to the Party whose termination is proposed at least 30 days prior to the regular Board meeting at which such matter shall first be discussed as an agenda item. The written notice of proposed termination shall specify the particular provisions of this Agreement or other agreement that the Party has allegedly violated. The Party subject to possible termination shall have the opportunity at the next regular Board meeting to respond to any reasons and allegations that may be cited as a basis for termination prior to a vote regarding termination. A Party that has had its participation in the CCA Program terminated may be subject to certain continuing liabilities, as described in Section 6.3.

6.3 Continuing Financial Obligations: Refund. Except as provided by Section 6.1.3, upon a withdrawal or involuntary termination of a Party, the Party shall remain responsible for any claims, demands, damages, or other financial obligations arising from the Party membership or participation in the CCA Program through the date of its withdrawal or involuntary termination, it being agreed that the Party shall not be responsible for any financial obligations arising after the date of the Party's withdrawal or involuntary termination. Claims, demands, damages, or other financial obligations for which a withdrawing or terminated Party may remain liable include, but are not limited to, losses from the resale of power contracted for by the Authority to serve the Party's load. With respect to such financial obligations, upon notice by a Party that it wishes to withdraw from the CCA Program, the Authority shall notify the Party of the minimum waiting period under which the Party would have no costs for withdrawal if the Party agrees to stay in the CCA Program for such period. The waiting period will be set to the minimum duration such that there are no costs transferred to remaining ratepayers. If the Party elects to withdraw before the end of the minimum waiting period, the charge for exiting shall be set at a dollar amount that would offset actual costs to the remaining ratepayers, and may not include punitive charges that exceed actual costs. In addition, such Party shall also be responsible for any costs or obligations associated with the Party's participation in any program in accordance with the provisions of any agreements relating to such program provided such costs or obligations were incurred prior to the withdrawal of the Party. The Authority may withhold funds otherwise owing to the Party or may require the Party to deposit sufficient funds with the Authority, as reasonably determined by the Authority and approved by a vote of the Board of Directors, to cover the Party's financial obligations for the costs described above. Any amount of the Party's funds held on deposit with the Authority above that which is required to pay any financial obligations shall be returned to the Party. The liability of any Party under this section 6.3 is subject and subordinate to the provisions of Section 2.2, and nothing in this section 6.3 shall reduce, impair, or eliminate any immunity from liability provided by Section 2.2.

6.4 Mutual Termination. This Agreement may be terminated by mutual agreement of all the

Parties; provided, however, the foregoing shall not be construed as limiting the rights of a Party to withdraw its participation in the CCA Program, as described in Section 6.1.

6.5 Disposition of Property upon Termination of Authority. Upon termination of this Agreement, any surplus money or assets in possession of the Authority for use under this Agreement, after payment of all liabilities, costs, expenses, and charges incurred under this Agreement and under any program documents, shall be returned to the then-existing Parties in proportion to the contributions made by each.

ARTICLE 7: MISCELLANEOUS PROVISIONS

7.1 Dispute Resolution. The Parties and the Authority shall make reasonable efforts to informally settle all disputes arising out of or in connection with this Agreement. Should such informal efforts to settle a dispute, after reasonable efforts, fail, the dispute shall be mediated in accordance with policies and procedures established by the Board.

7.2 Liability of Directors, Officers, and Employees. The Directors, officers, and employees of the Authority shall use ordinary care and reasonable diligence in the exercise of their powers and in the performance of their duties pursuant to this Agreement. No current or former Director, officer, or employee will be responsible for any act or omission by another Director, officer, or employee. The Authority shall defend, indemnify and hold harmless the individual current and former Directors, officers, and employees for any acts or omissions in the scope of their employment or duties in the manner provided by Government Code Sections 995 et seq. Nothing in this section shall be construed to limit the defenses available under the law, to the Parties, the Authority, or its Directors, officers, or employees.

7.3 Indemnification of Parties. The Authority shall acquire such insurance coverage as is necessary to protect the interests of the Authority, the Parties, and the public. The Authority shall defend, indemnify, and hold harmless the Parties and each of their respective Board or Council members, officers, agents and employees, from any and all claims, losses, damages, costs, injuries, and liabilities of every kind arising directly or indirectly from the conduct, activities, operations, acts, and omissions of the Authority under this Agreement.

7.4 Amendment of this Agreement. This Agreement may not be amended except by a written amendment approved by a vote of Board members as provided in Section 3.7.5. The Authority shall provide written notice to all Parties of amendments to this Agreement, including the effective date of such amendments, at least 30 days prior to the date upon which the Board votes on such amendments.

7.5 Assignment. Except as otherwise expressly provided in this Agreement, the rights and duties of the Parties may not be assigned or delegated without the advance written consent of all of the other Parties, and any attempt to assign or delegate such rights or duties in contravention of this Section 7.5 shall be null and void. This Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of the Parties. This Section 7.5 does not prohibit a Party from entering into an independent agreement with another agency, person, or entity regarding the financing of that Party's contributions to the Authority, or the disposition of proceeds which that

Party receives under this Agreement, so long as such independent agreement does not affect, or purport to affect, the rights and duties of the Authority or the Parties under this Agreement.

7.6 Severability. If one or more clauses, sentences, paragraphs or provisions of this Agreement shall be held to be unlawful, invalid or unenforceable, it is hereby agreed by the Parties, that the remainder of the Agreement shall not be affected thereby. Such clauses, sentences, paragraphs or provision shall be deemed reformed so as to be lawful, valid and enforced to the maximum extent possible.

7.7 Further Assurances. Each Party agrees to execute and deliver all further instruments and documents, and take any further action that may be reasonably necessary, to effectuate the purposes and intent of this Agreement.

7.8 Execution by Counterparts. This Agreement may be executed in any number of counterparts, and upon execution by all Parties, each executed counterpart shall have the same force and effect as an original instrument and as if all Parties had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

7.9 Parties to be Served Notice. Any notice authorized or required to be given pursuant to this Agreement shall be validly given if served in writing either personally, by deposit in the United States mail, first class postage prepaid with return receipt requested, or by a recognized courier service. Notices given (a) personally or by courier service shall be conclusively deemed received at the time of delivery and receipt and (b) by mail shall be conclusively deemed given 48 hours after the deposit thereof (excluding Saturdays, Sundays and holidays) if the sender receives the return receipt. All notices shall be addressed to the office of the clerk or secretary of the Authority or Party, as the case may be, or such other person designated in writing by the Authority or Party. Notices given to one Party shall be copied to all other Parties. Notices given to the Authority shall be copied to all Parties.

Exhibit A Definitions

“Act” means the Joint Exercise of Powers Act of the State of California (Government Code Section 6500 *et seq.*)

“Administrative Services Agreement” means an agreement or agreements entered into after the Effective Date by the Authority with an entity that will perform tasks necessary for planning, implementing, operating and administering the CCA Program or any other energy programs adopted by the Authority.

“Agreement” means this Joint Powers Agreement.

“Annual Energy Use” has the meaning given in Section 3.7.1.

“Authority” means the Peninsula Clean Energy Authority.

“Authority Document(s)” means document(s) duly adopted by the Board by resolution or motion implementing the powers, functions, and activities of the Authority, including but not limited to the Operating Rules and Regulations, the annual budget, and plans and policies.

“Board” means the Board of Directors of the Authority.

“CCA” or “Community Choice Aggregation” means an electric service option available to cities and counties pursuant to Public Utilities Code Section 366.2.

“CCA Program” means the Authority’s program relating to CCA that is principally described in Sections 2.3, 2.4, and 4.1.

“Director” means a member of the Board of Directors representing a Party.

“Effective Date” means February 29, 2016 or when the County of San Mateo and at least two municipalities execute this Agreement, whichever occurs later, as further described in Section 2.1.

“Implementation Plan” means the plan generally described in Section 4.1.2 of this Agreement that is required under Public Utilities Code Section 366.2 to be filed with the California Public Utilities Commission for the purpose of describing a proposed CCA Program.

“Initial Costs” means all costs incurred by the County and/or Authority relating to the establishment and initial operation of the Authority, such as the hiring of a Chief Executive Officer and any administrative staff, and any required accounting, administrative, technical, or legal services in support of the Authority’s initial activities or in support of the negotiation, preparation, and approval of one or more Administrative Services Agreements.

**Exhibit A (cont.)
Definitions**

“Operating Rules and Regulations” means the rules, regulations, policies, bylaws and procedures governing the operation of the Authority.

“Parties” means, collectively, any municipality within the County of San Mateo which executes this Agreement.

“Party” means a signatory to this Agreement.

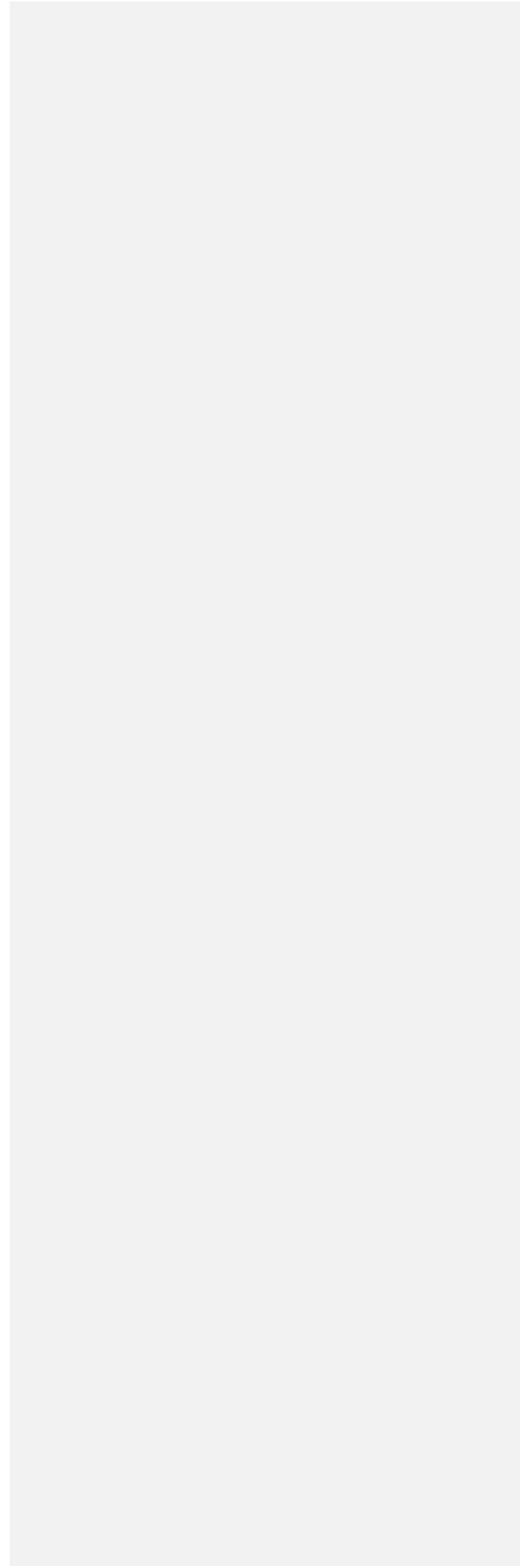
“Total Annual Energy” has the meaning given in Section 3.7.1.

**Exhibit B
List of Parties**

Parties:

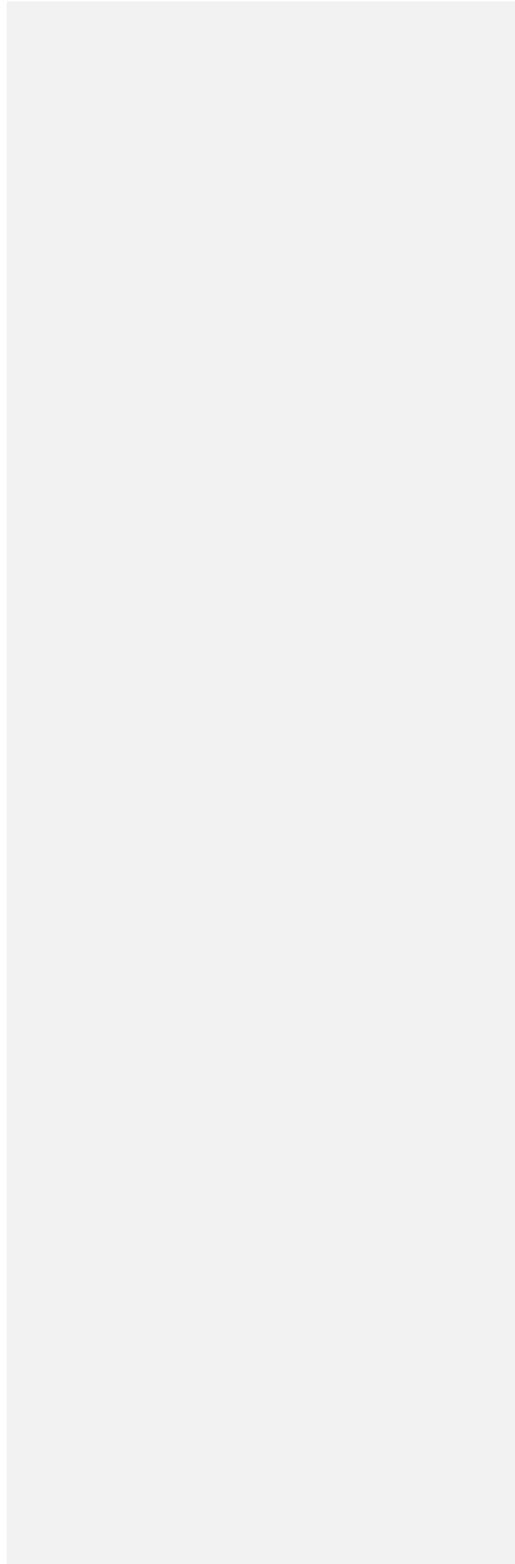
Atherton
Belmont
Brisbane
Burlingame
Colma
County of San Mateo
Daly City
East Palo Alto
Foster City
Half Moon Bay
Hillsborough
Menlo Park
Millbrae
Pacifica
Portola Valley
Redwood City
San Bruno
San Carlos
San Mateo
South San Francisco
Woodside

Effective 2/29/16



**Exhibits C and D
Annual Energy Use and Voting Shares**

ANNUAL ENERGY USE WITHIN PCE JURISDICTIONS AND VOTING SHARES		
Twelve Months Ended November [date]		
<u>Party</u>	<u>Total kWh</u>	<u>Voting Share</u>
SAN MATEO COUNTY		
Total		100





**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: Mar. 19, 2018
BOARD MEETING DATE: Mar. 28, 2018
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Kim Springer, Resource Conservation Program Manager,
County of San Mateo

SUBJECT: San Mateo County Energy and Water Strategy 2025

RECOMMENDATION

Receive an update on the development of the San Mateo County Energy and Water Strategy 2025 document, for review and comment.

DETAIL

In 2005, San Mateo County Board of Supervisors President Jerry Hill proposed the need for a countywide task force to investigate and recommend how best to meet the county's current and future energy needs. In February of 2006, the (then) Congestion Management and Air Quality Committee (CMAQ) authorized the creation of an ad hoc energy working group. The C/CAG Board then authorized the creation of the Utilities Sustainability Task Force (USTF) to consider the future needs of San Mateo County with regard to energy, water, and infrastructure. The committee was tasked with framing a discussion and developing a strategy defining practical actions for the cities and the County on energy, water, alternative generation, and climate protection.

The resulting document was the San Mateo County Energy Strategy 2012, which was completed in draft form in December of 2008, and adopted by the County Board of Supervisors. It was subsequently adopted by every city and town council in San Mateo County in 2009. San Mateo County Energy Strategy 2012 set goals, strategies, and actions related to energy, water, collaboration, economic opportunity, and leadership from top elected officials.

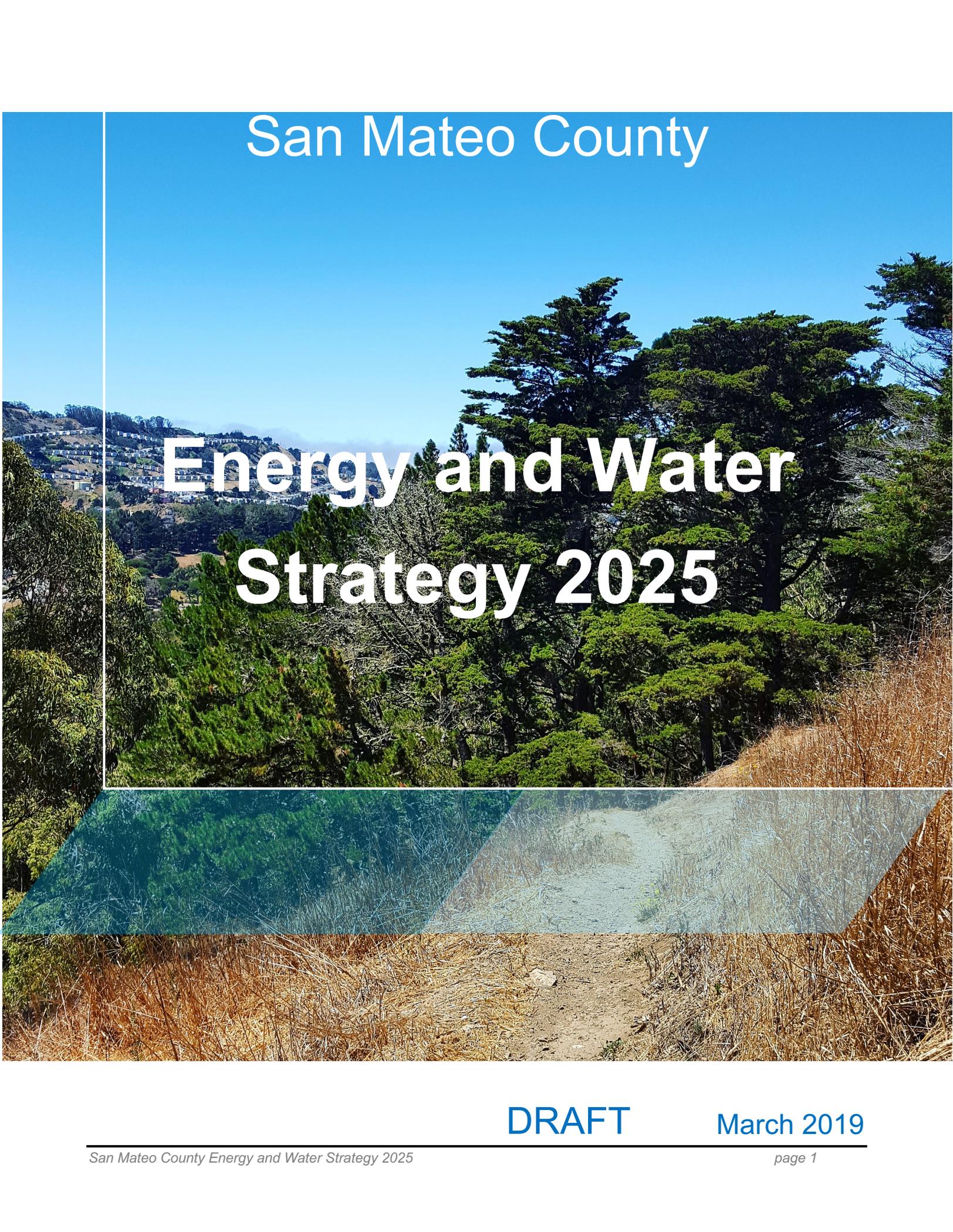
At the February 21, 2018, Resource Management and Climate Protection Committee meeting, the Committee discussed priorities for calendar year 2018 and concluded that the San Mateo County Energy Strategy should be updated, especially since the baseline for goals, strategies, and actions related to energy and water have significantly changed since December 2008. For instance, a new entity, Peninsula Clean Energy, is contracting for and providing energy to the majority of San Mateo County residents and businesses. In terms of water conservation, the response from ratepayers in San Mateo County to the recent drought restrictions has surpassed the stated goal for reduced water use established in the original document. In addition, a number of concerns, such as equity, safety, and economics, have surfaced as important elements to consider in a new Strategy document.

On February 8, 2018, the C/CAG Board approved a consultant contract with DNV GL to provide services to the San Mateo County Energy Watch program, including a task to develop the San Mateo County Energy and Water Strategy 2025 draft document. Additional funding was approved at the December 13, 2018, Board meeting to support completion of the final document. A December 2018 draft document has been completed and the document is attached for your review.

Staff will provide a short presentation on progress to date and the plan to finalize the Strategy document and present it for adoption to the County and the cities in 2019.

ATTACHMENTS

- A. March 2019 Draft – San Mateo County Energy and Water Strategy 2025



San Mateo County

Energy and Water Strategy 2025

DRAFT

March 2019



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Executive Summary

San Mateo County's first Energy and Water Strategy was adopted by the County in 2008, and every city in 2009 and provided background on energy and water use trends, with the goal of identifying best practices and County infrastructure needs through 2012. Energy and water issues, opportunities, and priorities in California and San Mateo County have changed greatly since the adoption of the 2012 Strategy. The goals, strategies, and actions in the new San Mateo County Energy and Water Strategy 2025 (Strategy) document, provide a comprehensive roadmap for San Mateo County to 2025. The development of the Strategy and its framework prioritized engaged, expert local stakeholders who, through a series of working meetings, developed foundational priorities that will serve to transform our use and transition of local energy and water systems.

The Strategy proposes a collaborative effort to overcome barriers, harnessing existing and new energy and water technologies, community relationships, development of new policies, and workforce development, while considering the quality of life of the community in San Mateo County. The latter is captured through a set of guiding principles for the Strategy. Specific emphasis is made on issues of equity and economic opportunity, throughout the document.

The energy and water sections each have a background and context section laying out the regulatory framework, available and relevant data for San Mateo County, and unique challenges and opportunities.

In terms of energy, the goals, strategies, and actions in the framework mimic the transformational pathway of the global energy sector from fossil-based fuels to efficient and greenhouse gas free electricity by 2050. Goals and strategies include: optimizing energy use through deploying smart design and technologies in existing buildings, policy and design education for new buildings, pilot projects with new technologies such as storage and microgrid, load balancing in real time, decarbonizing both the supply and demand, expanding electric vehicle infrastructure, advocacy, integrating carbon offset projects, better leveraging data, financing and funding .

In terms of water, the “One Water” concept is highlighted here, which emphasizes that all water has value during its continuous movement of water through all the phases of the natural hydrological and reuse cycle, including stormwater and recycling water for potable and non-potable uses. Goals and strategies include: enhancing indoor water conservation through policy and education, increasing outdoor conservation through policy and best practices, development and use of water data, expanded use of onsite recycled water, expanded use of utility-supplied recycled water, development of new technologies, and supporting system improvements by promoting integrated water management and wastewater treatment plant resiliency.

In terms of the energy-water nexus, the Strategy focuses on energy as a resource used in the treatment and movement of water.

Implementation of the Strategy is prioritized in terms of which actions require more immediate focus. Policy promoting infrastructure and building development incorporating innovative energy and water design and construction is key to ensuring new construction is fit for the future. This Strategy document provides “first” actions to be taken, based on stakeholder input, to prioritize the broad list developed across all goals and strategies. Finally, the Strategy proposes a set of simple indicators to be tracked for both energy and water.

The San Mateo County Energy and Water Strategy 2025 project carefully considers how the County will address our communities’ needs in an environmentally, socially, and fiscally responsible manner. By taking the collaborative actions in this plan, we will be contributing to the well-being of our cities, the county, and the region.

1. Introduction

In December 2008, San Mateo County published the San Mateo County Energy Strategy 2012 to address the future energy and water needs of the county. The 2012 Strategy was subsequently adopted by every city in San Mateo County in calendar year 2009. Since that time, much has changed. San Mateo County has seen a historic drought, the launch of Peninsula Clean Energy (PCE), and a whole set of new state climate resiliency goals and guidance. In addition, new technologies, the prevalence of energy efficiency and water conservation programs, new financing, falling cost of distributed renewable energy, rising costs of water and pressure to reuse it, have all added to the need to for an updated strategy.

There has been significant progress since the 2012 Strategy was adopted in 2009 and local governments across California are becoming important players in energy markets with the launch of community choice aggregators, such as PCE. Given the urgency of climate action, stakeholders across San Mateo County are forging new paths to address climate change, including taking significant action to move from centralized fossil fuels sources to cleaner, distributed and renewable energy resources.

Throughout San Mateo County, all 20 cities and the County are developing new programs and policies to use energy more efficiently and decrease fossil fuel use in buildings and transportation, aligning with state targets to reduce greenhouse gas emissions 40% by 2030 and 80% by 2050 and, most recently, a call for 100% greenhouse gas-free electricity.

Extended drought conditions and national attention on water quality have led to state-level policy to improve water efficiency and maintain water quality. Many of these new regulations are a result of “Making Water Conservation a California Way of Life¹” which includes programs and policies to craft a long-term water conservation framework to help prepare for changing climate conditions and water shortages, aligning with the state’s increasing water conservation standards.

Countywide, we have seen decreases in water use since 2009 despite population growth. In 2015, BAWSCA published the Long-Term Reliable Water Supply Strategy Final Report, a five year effort to identify water management actions that supply long-term reliability of water supply through 2040.

The *San Mateo County Energy and Water Strategy 2025* reflects the commitments and

¹<https://water.ca.gov/Programs/Water-Use-And-Efficiency/Making-Conservation-a-California-Way-of-Life/Implementing-the-Executive-Order>

priorities of diverse stakeholders across the County. Together, we can each do our part to ensure that our energy and water policies and programs continue to promote a high quality of life, sustainability, and resilience for future generations.

1.1 Desired Outcomes

San Mateo County alone, let alone the rest of Silicon Valley, is a world-renowned center for innovation in a location with a rich variety of natural beauty. As a region, San Mateo County has always benefited from the talent and diversity of its residents and industries. These attributes are a critical foundation for new energy and water technologies, programs, policies, financing, and business models.

The County seeks to foster and deepen regional partnerships between policy makers, private sector partners, and the public. By convening stakeholders around this strategic plan, the County hopes to increase collaboration and impact to achieve local and state climate goals, while working together to preserve the diverse natural and cultural richness that exists here. The reduction of greenhouse gas emissions from fossil fuels and the coordination of water management around the natural and reuse hydrological cycles will require participation from all sectors of the community, local governments, and other regional agencies. Through this Strategy, San Mateo County will steward the clean energy transition and move towards awareness of the “One Water” approach through shared programs, outreach and education, and coordination of funding opportunities.

1.2 Vision and Guiding Principles

The impetus of this strategic planning effort was the desire to meet state regulatory goals, while balancing the economic, social, and ecological needs of the community and providing safe, reliable, and renewable energy and water.

While the environmental and long term benefits achieved through meeting state regulatory goals are well recognized, it is necessary to consider how environmental justice issues are addressed in the process of achieving these goals, especially given the diverse socioeconomic climate in San Mateo County. Disadvantaged communities historically experience the impacts of climate change more severely and the guiding principles of the Strategy include specific provisions to ensure that their needs are understood and incorporated.

The mission of the *San Mateo County Energy and Water Strategy 2025* is to ensure a safe, equitable, and coordinated transition towards clean energy and the One Water approach by leveraging new technologies, policy, funding resources, and opportunities for collaboration in San Mateo County.

The vision of the *San Mateo County Energy and Water Strategy 2025* is a successful collaboration of municipal, private, and public stakeholders, providing a sustainable utilization of energy and water resources and systems that are safe and reliable, in support of our climate action goals, energy infrastructure and water supply across San Mateo County.

The guiding principles for the San Mateo County Energy and Water Strategy include:

- **Safe:** Ensure energy and water is safe to consume for all, cybersecure, and does not pose a hazard for any community
- **Sustainable:** Support positive environmental impact with the lowest possible carbon footprint for delivered and consumed energy and water
- **Equitable:** Ensure energy and water is accessible to all, regardless of socioeconomic status and considering existing inequities
- **Abundant:** Provide water and energy at a capacity to serve current and future needs
- **Reliable:** Build and maintain infrastructure so energy and water are available to all when needed
- **Resilient:** Prepare for the effects of climate change or other potential disasters to ensure that energy and water is there when you need it, especially for vulnerable communities
- **Affordable:** Provide energy and water at a cost that is competitive and economically stable



1. Background and Context

Reliable energy and water resources are the foundation of modern life. In recent years, San Mateo County has seen significant changes related to energy in its availability, how it is supplied and managed and how residents and businesses use these resources. During this time, water management and governance has remained somewhat unchanged, though per capita water use has steadily decreased. Issues concerning the safety, sustainability, and resilience of energy and water systems are inextricably linked and require a mix of synergistic and unique solutions.

1.1 Energy

The urgency of climate change has motivated stakeholders across the County to leverage new opportunities and to step forward as key participants in the energy transition. We see these changes driven by three emerging trends:

- **Technology:** Technology in the energy sector is evolving quickly, presenting new opportunities for residents and businesses to produce, store, and consume energy more responsibly, promoting sustainability and cost savings. New distributed energy resources include integrated solutions such as microgrid applications and energy storage for community resiliency. Meanwhile, smart building controls have begun to support the aggregation of multiple sites to provide meaningful grid services and new cost savings for residents and businesses.
- **Markets:** The falling cost of renewable energy technologies such as PV and battery storage, combined with the rise of community choice aggregators (CCAs) and PG&E options for 100% clean electricity, is fostering local control of electricity supply in whole new ways. With the launch of Peninsula Clean Energy, all 20 cities and the County now procure cleaner, cost competitive, renewable energy for the vast majority of citizens and businesses. To ensure further success of this pathway, consideration of when electricity is used is a sensible next step.

- **Policy:** Local governments are increasingly comfortable using their authority to enact new policies and programs to accelerate adoption of local renewable sources of energy. Local policies include building reach codes, energy disclosure, procurement practices, and innovative land use and zoning requirements that support sustainable development.

In order to support reduction of greenhouse gas emissions and limit global warming to 1.5 degrees Celsius, federal, state, and local government policymakers alike have recognized the need for smarter, more robust, clean electricity infrastructure to achieve GHG reduction goals.

Electrification is a key priority in the energy transition, resulting in a convergence of clean vehicle policy and fuel switching in new and existing buildings. This transition to smart, electric buildings and vehicles also includes empowering the community to become active participants in the energy markets, while continuing to grow the local clean energy economy.

1.1.1 Regulatory Framework

The regulatory framework in California is rapidly expanding in support of a renewable energy future. The following regulations and commitments highlight the rapid developments in the state's energy regulations:

- **Senate Bill 100:** In September 2018, California committed to 100% GHG-free electricity by 2045 leading alongside Hawaii in statewide renewable energy goals.
- **Greenhouse Gas Reduction Imperatives:** Through Senate Bill 32 cities are required to reduce GHG emissions 40% by 2030 and following Executive Order B30-15, 80% by 2050, as compared to 1990 levels. The primary sectors for GHG emissions in San Mateo county are transportation and building energy use. Therefore, to meet these state requirements cities are swiftly moving to decarbonize buildings and transportation through electrification.
- **Renewable Portfolio Standard (RPS):** California's 50% Renewables Portfolio Standard by 2030 has positioned the state as a global leader in renewable energy, with an interim requirement of 33% by 2020. The increasing amount of renewable energy has been the most significant driver of GHG reduction in buildings for many cities and counties.
- **CAFE Standards:** Transportation emission reductions since 1990 are largely due to stricter state requirements of vehicle fuel economy beyond the Corporate Average Fuel Economy, or "CAFE", Standards, improving the average fuel economy of cars and light trucks through standards and regulations.

- **5,000,000 Electric Vehicles Target:** California has set its sights on incentivizing the adoption of electric vehicles and electric vehicle charging infrastructure in order to meet the goal of getting 5 million EVs on the road by 2030.
- **Zero Net Energy (ZNE):** California building code requires all residential new construction to be built to ZNE standards by 2020, with a stated goal that all commercial buildings are ZNE by 2030.

These state-level regulatory commitments are moving toward GHG-free electricity and drastically reducing fossil fuel consumption in buildings and transportation. Achieving this shift away from fossil fuels will require the County to work on behalf of our stakeholders with the governing energy agencies who regulate California’s energy system: California Independent System Operator (CAISO), which operates and manages the the electric grid; California Public Utilities Commission (CPUC), which regulates the local distribution system; the California Energy Commission (CEC), which tracks historical use, forecasts future needs, sets energy efficiency standards and supports development of new energy technologies; our local investor-owned utility, Pacific Gas and Electric (PG&E); our local CCA, Peninsula Clean Energy (PCE) and the many stakeholders across San Mateo County who can support this transition.

1.1.2 San Mateo County Energy Data and Trends

Across San Mateo County, overall energy consumption has continued to decrease even as population and jobs have increased. From 2005 to 2015, population has increased 8.6%, jobs have increased 32.0% and service population (population + jobs) have increased 16.0%. As shown below in **Figure 1** and **Figure 2**, overall electricity consumption has decreased 8% and natural gas consumption has decreased 13% between 2005 and 2015, based on PG&E data.

Figure 1. Electricity Consumption by Sector

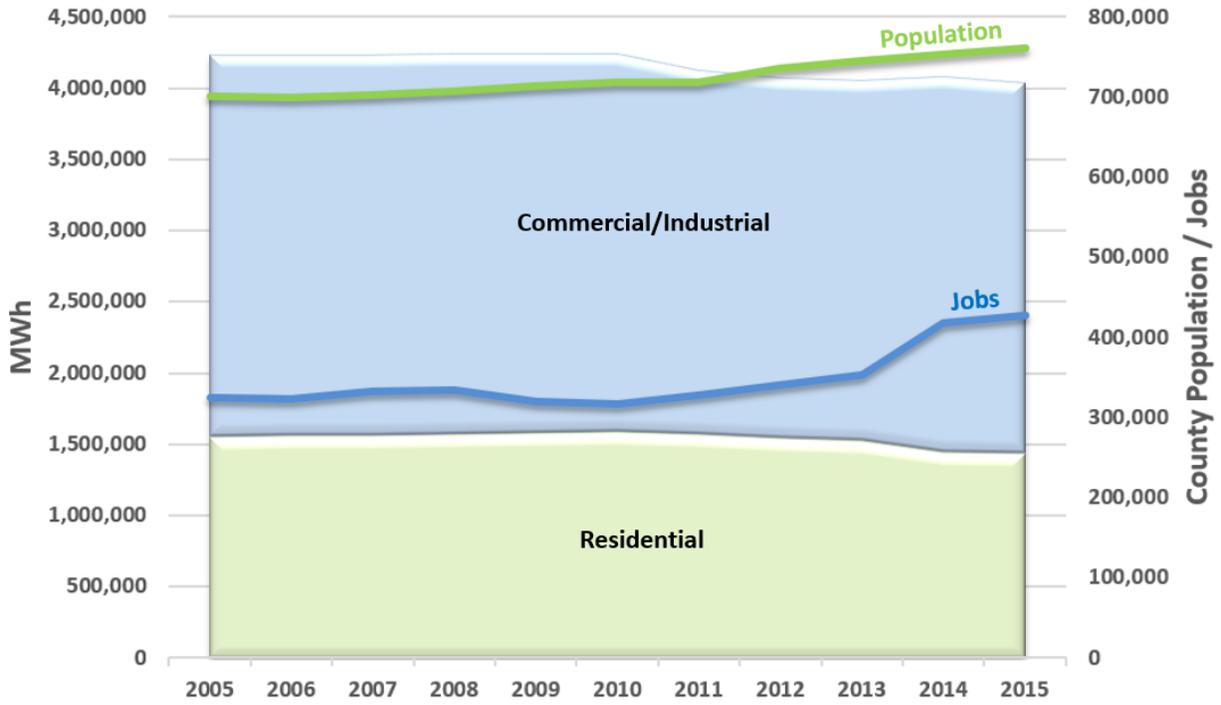
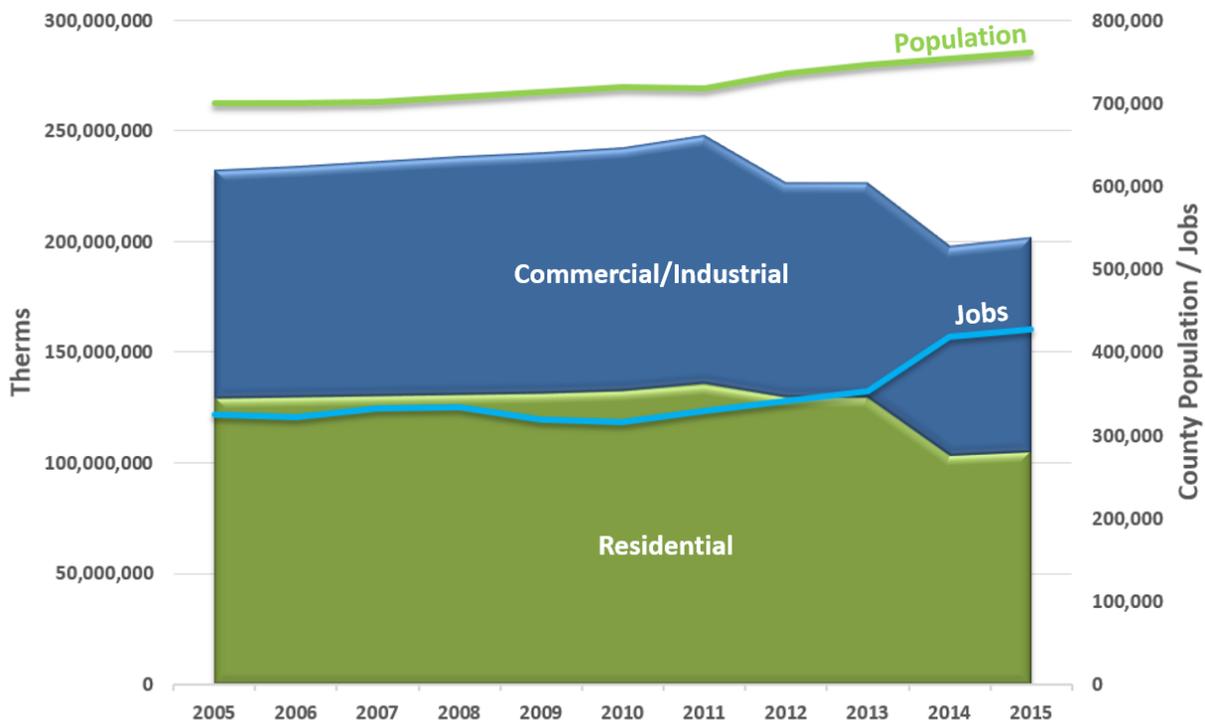
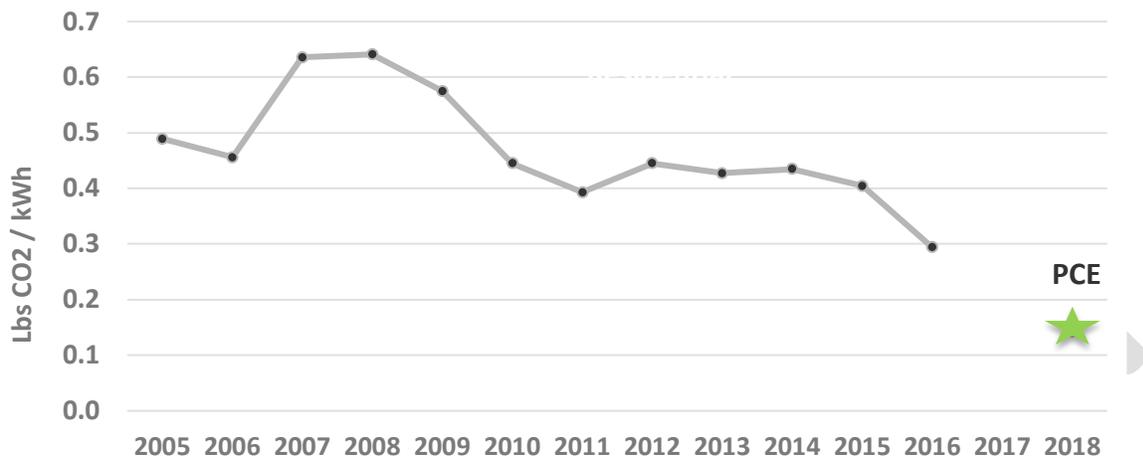


Figure 2. Natural Gas Consumption by Sector



While electricity consumption has decreased slightly, the greenhouse gas emissions factor associated with PG&E supplied electricity has decreased 40% since 2005, largely driven by the State’s renewable portfolio standard (RPS). As shown in **Figure 3**, with the launch of PCE an additional 30% decrease in emissions is expected based on PCE’s 2018 emissions factor, with PCE setting a goal to supply 100% GHG-free electricity by 2021 and source 100% CA RPS eligible renewable energy by 2025.

Figure 3. Electricity Emissions Factor (PG&E 2005 – 2016)



One of the main factors in decreasing emissions is the increase in solar energy generation, as shown in **Figure 4**. There has been an increasing trend for distributed energy resources such as solar PV, and electric vehicles. As of January 2018, approximately 2% of vehicles registered in San Mateo County with Department of Motor Vehicles are estimated to be battery electric (BEV), or plug-in hybrid (PHEV) electric vehicles (Figure 5).

Figure 4. Cumulative Distributed Solar Capacity Installed by Sector

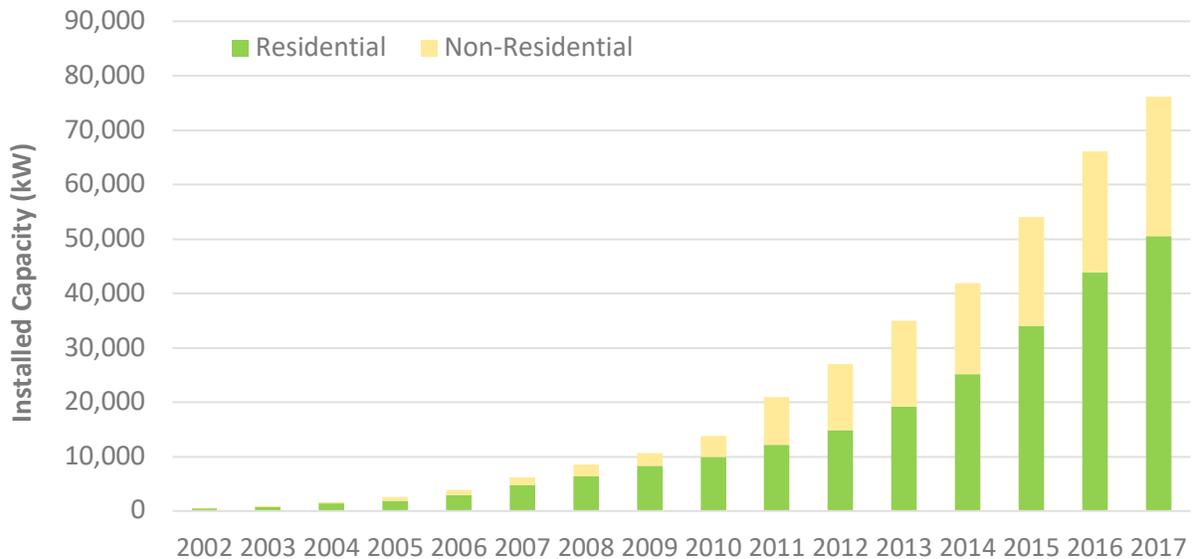
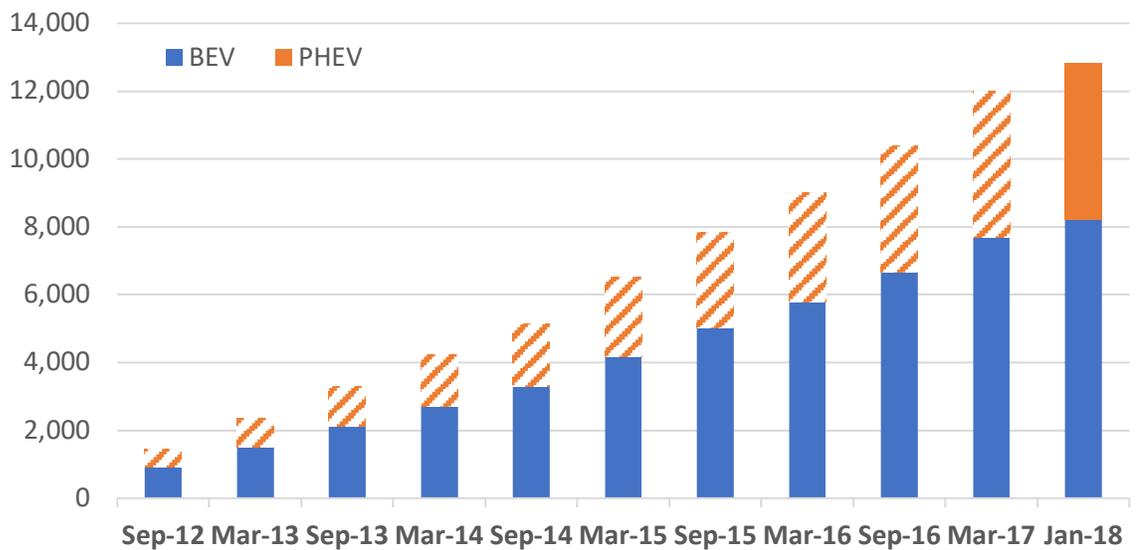


Figure 5. ²Electric Vehicles Registered in San Mateo County (Passenger Vehicles)



² Prior to January 2018, data on the # of PHEVs was not available from the DMV. For all time periods prior to January 2018, the number of PHEVs is estimated based on the ratio of BEV to PHEVs in San Mateo County in January 2018 and the number of BEVs registered in San Mateo County in given time period (e.g. March 2017, September 2016, etc.). That is why the orange bars are striped on graph prior to 2018

In summary, substantial progress is being made countywide to reduce energy consumption and shift to cleaner sources of energy to power our vehicles, homes and businesses. A recent study by the City and County Association of Governments suggested that, to meet 2040 GHG reduction goals, approximately 40% of the registered vehicles in San Mateo County would need to be EVs. Currently, only 2% of registered vehicles in San Mateo County are EVs. Significant work remains to meet the State of California's ambitious climate goals for 2030 and beyond.

1.1.3 Challenges and Opportunities

Despite progress in the transition from centralized fossil-fuel based energy to distributed and renewable resources, many issues and challenges remain. These include:

- **Grid infrastructure to support electrification and distributed energy resources.** As our communities increasingly electrify both transportation and buildings, the grid infrastructure must be upgraded to ensure adequate capacity for increased and distributed loads.
- **Data access for stakeholders and community partners.** With smart grid and smart building technologies, more and more data is now available in real-time for managing consumption and generation. This includes data associated with grid capacity. Currently, the data is restricted by data privacy rules. More work is needed to identify how data can be securely leveraged to support various energy initiatives and priorities.
- **Existing buildings and opportunities for upgrades.** The biggest issue holding back the transformation of the building sector is the rate at which existing buildings can be retrofitted for energy efficiency, building envelope and electrification of space and water heating systems. This is mainly attributed to significant costs associated with these improvements, perceived or real. While building codes have continued to increase in stringency for new construction, existing buildings form the vast majority of the built environment and further innovations are needed for decarbonization of existing buildings.
- **Need for new collaborations.** The energy landscape in the County is changing with more players, and more coordination is needed across various partners (e.g., the County, PCE, PG&E, the 20 Cities, non-profits, private sector partners, regional agencies) to incentivize and accelerate the adoption of efficient, electric technologies and transition the fuel of our buildings and fleets to clean electricity.
- **Community engagement for all sectors, including communities of concern.** The energy transition necessitates individual action, in addition to government and private sector action. Therefore, deep engagement with community members across San Mateo County is needed in the development of new programs and policies. Particular focus is

needed on socioeconomic equity, encompassing racial and social justice, as well as affordability, to support our most vulnerable populations.

- **Aging and Outdated Infrastructure.** Old systems and the process by which infrastructure decisions are made are in dire need for updating, whereby sustainability and resilience are the most prominently weighted factors.

1.2 Water

Water is an essential resource for life and is inextricably linked to energy. While modern society can (arguably) live without electricity and natural gas, water is the lifeblood of humanity – constituting 60% of the adult body with every living cell in the body needing water to function.

Despite increased conservation, water supply is still an issue of concern due to the impacts of climate change on the hydrologic cycle and the additional complexity of how the State of California might adapt policies that impact water supply in the County.

The concept of “One Water” emphasizes that all water has value during its continuous movement through the natural hydrological cycle and reuse cycles, including stormwater and water that is reused for potable and non-potable purposes. A sustainable future requires managing water resources more collaboratively, reducing water consumption, leveraging a variety of supplies and promoting innovation across the water sector.

1.2.1 Regulatory Framework

In contrast to energy, which is primarily procured by two entities (PG&E and PCE), there are numerous water retailers operating across San Mateo County. In 2003, the Bay Area Water Supply & Conservation Agency (BAWSCA) was created to represent the interests of 24 cities and water districts, and two private utilities, in Alameda, Santa Clara, and San Mateo counties that purchase water on a wholesale basis from the San Francisco Regional Water System.

Several cities and joint powers of authorities across San Mateo County provide wastewater treatment and services, including Silicon Valley Clean Water, Sewer Authority Mid-Coastside and others.

“Current management practices for water supply and flood management in California may need to be revised for a changing climate. This is in part because such practices were designed for historical climatic conditions, which are changing and will continue to change during the rest of this century and beyond. As one example, the reduction in the Sierra Nevada snowpack, which provides natural water storage, will have implications throughout California’s water management system.”

State of California’s 4th Climate Change Assessment Report (2018)

The regulatory framework for water supply and use is largely driven at the state level, providing oversight of disparate urban water suppliers to, for example, drive conservation efforts, enforce drinking water quality standards, and regulate wastewater processing to ensure public health is maintained.

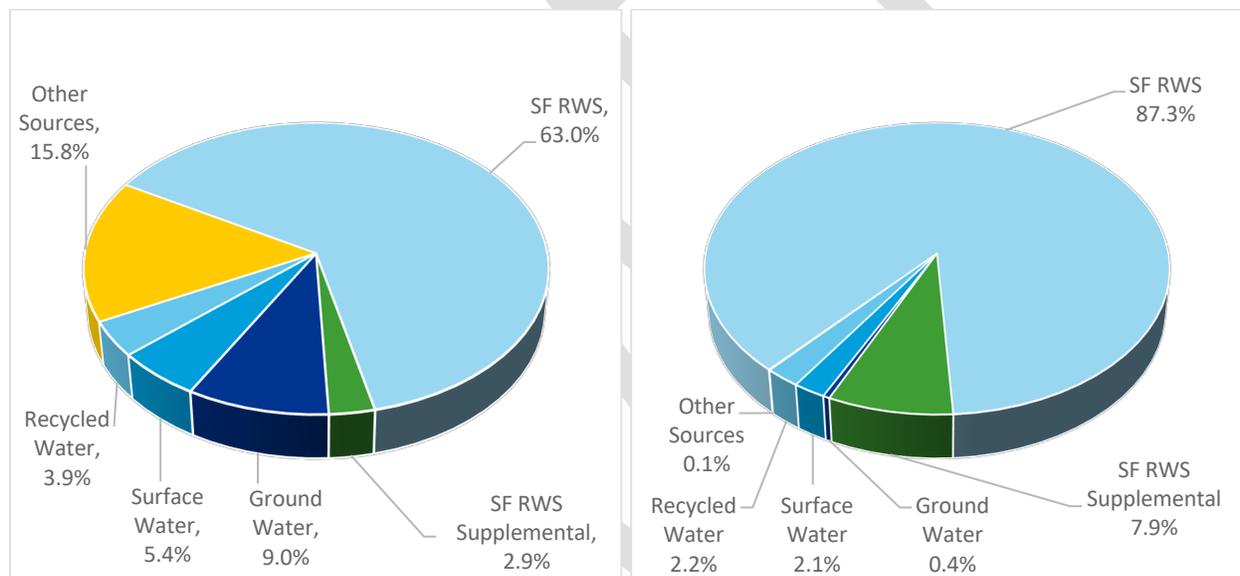
Some key regulations include:

- **Making Water Conservation a California Way of Life** establishes a framework for the implementation of new standards around efficient water use. The related legislative bills require cities and water districts to establish strict annual water budgets and set water use targets by 2022. Agencies not meeting their goals by 2027 may face fines of up to \$10,000 per day. The water use standards will be developed based on indoor and outdoor residential water use; commercial, industrial, and institutional outdoor water use; water loss; and other regional variances. The indoor water standard will be 55 gallons per person per day in 2022, falling to 50 gallons per person in 2030. The bills also provide incentives to water suppliers for recycling water.
- **Sustainable Groundwater Management Act (SGMA)** requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, applicable basins should reach sustainability within 20 years of implementing their sustainability plans.
- **National Pollutant Discharge Elimination System (NPDES)**, is a U.S. Environmental Protection Agency permit program created in 1972 by the federal Clean Water Act addressing water pollution by regulating point sources that discharge pollutants. The San Mateo Water Pollution Prevention Program (SMCWPPP) is a partnership of C/CAG, each incorporated city and town in the county, and the County of San Mateo, which share a common NPDES permit to comply with federal and state requirements.
- **Water Reclamation Requirements for Recycled Water Use (General Order)** were adopted in 2016 by the California State Water Resources Control Board to establish standard conditions for recycled water use and further encourage recycled water use statewide. The General Order acknowledges recycled water as a resource through water reclamation requirements and allows recycled water programs to be permitted by the State Water Board.
- **The Bay Delta Water Quality Control Plan** supplements the other water quality control plans that cover the Bay-Delta Estuary. Together they include all necessary elements of water quality control plans in accordance with Water Code sections 13241 and 13242 and federal requirements.

1.2.2 San Mateo County Water Data and Trends

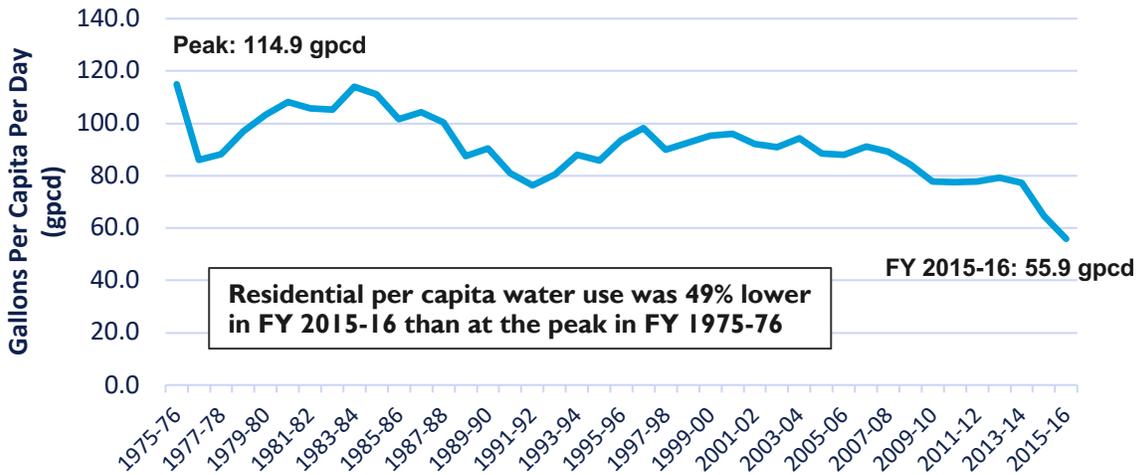
According to BASWCA, the majority of water supplied across its service area of San Mateo, Alameda, and Santa Clara counties is provided by San Francisco Regional Water Supply (RWS), followed by groundwater and other sources as shown in **Figure 6**. Among the BAWSCA member agencies, however, sources of supply vary considerably. In San Mateo County, a very small portion of water is supplied by groundwater in contrast to other counties, the majority of water supplied to communities in San Mateo County comes from San Francisco Regional Water Supply, as shown below.

Figure 6. Water Use by Source (2017) BAWSCA Members Total (left) versus San Mateo County BAWSCA Members (right)



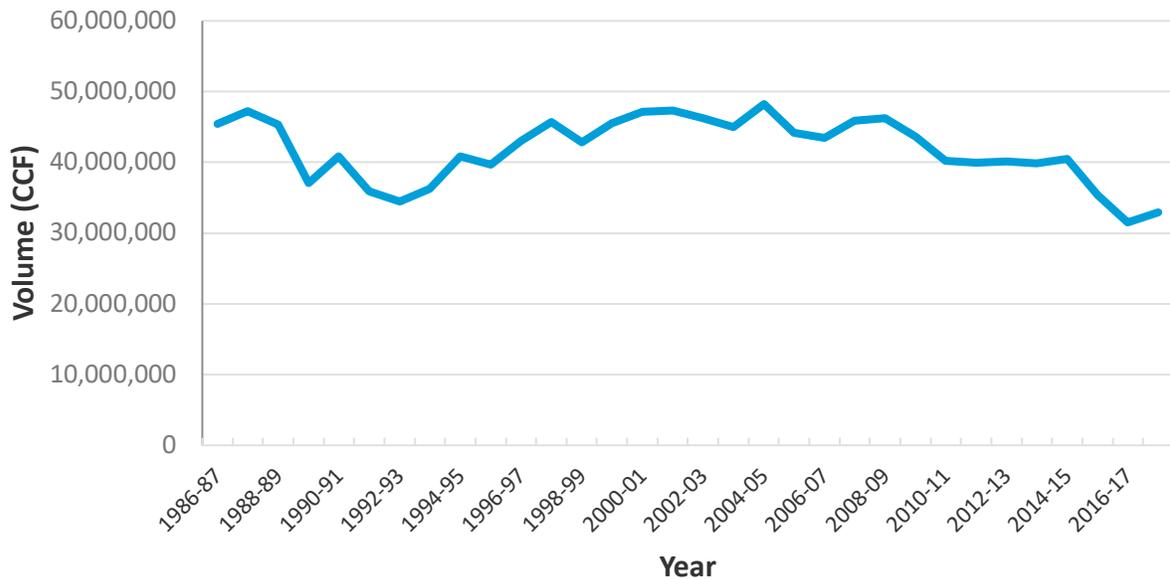
Over the past four decades, overall water consumption has decreased across San Mateo County consistent with trends in decreasing residential per capita water use across BAWSCA's service area. As shown below in **Figure 7**, in BAWSCA's service territory for Alameda, Santa Clara, and San Mateo counties, the average residential gallons per capita per day (gpcd) decreased 49% from 1975 to 2015.

Figure 7. BAWSCA Residential Per Capita Water Use



While per capita water consumption has decreased across San Mateo County, **Figure 8** shows that total water consumption has largely remained relatively stable despite significant population and jobs growth. Additionally, after Governor Jerry Brown issued a proclamation declaring a Drought State of Emergency in January 2014, total water consumption of BAWSCA agencies in San Mateo County decreased by 19% from from FY 2013-14 to FY 2016-17.

Figure 8. Total Water Consumption of BAWSCA Member Agencies in San Mateo County



1.2.3 Challenges and Opportunities

Similar to energy, the water sector is facing numerous issues and challenges moving forward related to ensuring reliable water supply and fair costs, integrating recycled water, and minimizing environmental impacts. These include:

- **Water and wastewater infrastructure withstanding seismic and other hazards.** Continued investments are needed to upgrade aging infrastructure, including identifying risks associated with seismic and other hazards such as sea level rise and extreme weather. Regional wastewater treatment plants are identified as critical infrastructure and face risks associated with backflow due to sea level rise.
- **Water supply management that accounts for uncertainties of climate change.** BAWSCA, through its Long-Term Reliable Water Supply Strategy,³ has been working to identify regional water supply needs and water supply management projects and/or programs (projects) that can be developed to meet supply needs. BAWSCA identified a myriad of potential projects, and much of the current focus is on exploring opportunities for indirect potable water reuse, which introduces purified recycled or reclaimed water into an environmental buffer such as groundwater aquifer or surface water reservoir prior to its use.
- **Innovation in water conservation strategies.** In contrast to energy, there are limited dedicated funding streams for water conservation and more work is needed to leverage opportunities for innovation, including real-time metering of water use data, app-enabled water monitoring, and aggressive policies and programs to conserve water at the local level.
- **Working across a large number of diverse stakeholders, agencies and community-based organizations.** Many of the water supply management strategies, including conservation and developing new water supplies, require engaging with many water retailers across San Mateo County and the region. In addition, there is a need for continued engagement with community-based organizations and communities of concern to ensure an equitable distribution of resources and programs.

³ <http://bawsca.org/water/reliability/strategy>

2. Navigating this Strategic Plan

Partnering to bring about a sustainable energy and water future is more important than ever. The County, the cities, Peninsula Clean Energy (PCE), PG&E, BAWSCA, local joint powers of authorities (JPAs), and the dedicated NGOs and businesses in the region are all key partners. These implementation and resource partners have collaborated to identify countywide priorities for expanding programs and policies to support sustainable, reliable, and equitable management of energy and water resources.

The result is a coordinated *San Mateo County Energy and Water Strategy 2025* that focuses on goals, strategies, and actions to guide efforts and priorities for the next several years, with a prioritized set of foundational actions in Section 5. In the process of developing this strategic plan, a deeply connected cross-sectoral working group of local experts came together to advance innovative energy and water solutions to benefit our communities. For both energy and water, key partners were identified by the working group for implementation of the Strategy as listed in **Table 9**. The County also seeks to engage with local environmental organizations, sustainability advocacy organizations, community-based organizations, local student groups, and other entities active in implementing and promoting innovative energy and water initiatives.

Table 9. Key Partners for Implementation

Energy	Water
<ul style="list-style-type: none"> • San Mateo County (SMC) • City government • Peninsula Clean Energy (PCE) • Pacific Gas & Electric (PG&E) • Resource Conservation District (RCD) • Non-government organizations (NGO) • Private sector partners 	<ul style="list-style-type: none"> • San Mateo County (SMC) • Bay Area Water Supply and Conservation Agency (BASWCA) • Water retailers • Wastewater facilities • City (other departments) • Resource Conservation District (RCD) • Non-government organizations (NGO) • Private sector partners

Since each action described in this strategic plan is multi-faceted, different roles were further identified.

Table 10 provides a list of the specific categories of actions key partners may engage in to address specific strategies (denoted by the corresponding icon).

Table 10. Key to Categorizing Actions

Category of Action	Example Actions	Icon
Policy or Policy support	Adopt reach codes, ordinances, and new policies to influence community behavior, retrofits and upgrades	
Outreach/Marketing	Launch education campaigns to increase awareness of resources, desired behaviors and trainings	
Programs and Partnerships	Provide technical assistance and pilot programs and facilitate engaging with partners. This also includes workforce development and education.	
Utility Infrastructure	Invest in and upgrade energy and water infrastructure at the utility-scale	
Technology	Supporting technology dissemination and development, as well as foster commercialization of new technologies	
Financing/ Incentives	Provide funding, financial incentives, financing and loans	



3. Opportunities in a Changing Energy Landscape

Driven by new state policy, technology, and market opportunities, the way local governments manage, supply, and interact with energy is changing rapidly. In this chapter, three major goals are identified along with strategies to achieve those goals. These strategies identify how San Mateo County, Peninsula Clean Energy, PG&E, cities, and others can work together to navigate the energy transition to the greatest benefit for our local communities.

Goal E1. Optimize and Reduce

Strategy E1.1: Leverage passive design and smart building technologies to optimize and reduce energy use in existing buildings

	Actions	SMC	City	PCE	PG&E	Other
1.	Provide financial and technical resources and local workforce development trainings for installers and building owners/operators to learn to analyze building energy use through a combination of measures.				 	RCD
2.	Pursue development of local benchmarking and energy use disclosure ordinances, with County support for cities to develop policies and set energy efficiency goals.					
3.	Leverage utility and PCE program incentives for energy efficiency and demand side management, including monitoring-based commissioning programs and energy (and water) audits of agricultural and industrial				 	

	operations.					RCD
4.	Develop programs for all income levels that encourage retrofits and smart home, real-time monitoring including sub-metering, along with passive (efficiency) design features for major remodels.			 		
5.	Educate, engage and incentivize building owners, real estate and property management representatives to address split-incentive issues, including developing tenant improvement guidelines and green lease contracting templates.					
6.	Leverage public-private partnerships and multisector resources support efforts like innovative pilots including a smart/efficient building design competition. Secure partnerships with partners such as Nest, Mynt and OhmConnect.				 	PG&E  

Strategy E1.2: Promote policy and high efficiency design approaches for zero net carbon in new construction

	Actions	SMC	City	PCE	PG&E	Other
1.	Support regional approaches to promoting reach codes for new construction to go beyond state ZNE goals, including templates, pilots and case studies focusing on Net Zero Carbon (NZC), also known as all-electric. Partner with utilities around all electric infrastructure planning.	 		 	 	 
2.	Adopt local reach codes, streamline permitting and other green building policies focusing on Net Zero Carbon, beyond state ZNE codes. County to provide templates for NZC reach codes and outreach materials.			 Partner		

3.	Aggressively promote all-electric new buildings including accessory dwelling units and funding for net zero carbon pilots.					
4.	Increase customer and trades education and training for the trades around net zero carbon buildings, including efficiency, heat-pump water and space heating/cooling systems, on-site renewables and other distributed energy resources.				 	Regional 
5.	Integrate resilience assessments, upcoming AB 262 assessment of project materials for global warming potential, and energy audits for planning with new developments to ensure longevity, including consideration of future climate impacts (increasing heat, flooding, etc.).					

Strategy E1.3: Leverage new technologies related to existing building electrification such as heat pumps for thermal loads

	Actions	SMC	City	PCE	PG&E	Other
1.	Create heat pump water heater (HPWH), space heating and electric stoves/dryers program and incentives (residential). County will support cities and PCE to create education, training and outreach for electrification measures.	 				 
2.	Create public-private partnership around mid-stream incentives and/or bulk buys of HPWH (like Sunshares). Work with utility or PCE to set up on-bill or easy financing solution.					 Regional & State
3.	With utility and PCE, explore opportunity to pilot a fleet of grid-enabled heat pump water heaters in multi-family new construction or large-scale retrofit.					 Developer, Manufact.

4.	Provide/promote local workforce development opportunities related to building electrification, including cross-training of plumbing and electrical trades, engage industry to provide trainings for all electric technologies (including stoves, heaters, etc.) and provide educational resources for inspectors/ permit/ plan checkers.					
5.	Develop model reach codes and incentives for all electric building measures and streamline permitting processes for heat pump technology, and other related technologies.					

Strategy E1.4: Align energy demand (loads) with renewable energy generation for grid stability

	Actions	SMC	City	PCE	PG&E	Other
1.	Analyze and prioritize buildings for demand response and load shaping opportunities; considering rolling out alongside Energy Benchmarking program launch.					
2.	Promote permanent shifts of load to times when renewable energy is plentiful through energy and thermal storage, load timing/controls, precooling/pre-heating and other measures.					 Utility
3.	Promote automated demand response solutions/technologies to curtail customer demand (e.g., AC load control, etc.).					

Goal E2. Decarbonize and shift to clean energy

Strategy E2.1: Support rapid community shift to 100% GHG-free electricity

	Actions	SMC	City	PCE	PG&E	Other
1.	Create partnerships, awareness campaigns and incentives to maximize opportunities for local rooftop PV and carport PV systems combined with energy storage for residential and commercial buildings. For the agricultural sector, promote solar-powered pumps (for water).					
2.	Enhance building reach codes to support community scale smart solar projects with energy storage, and multifamily dwelling units' electric vehicle charging infrastructure.					
3.	Encourage all consumers to move towards 100% renewable energy, through PCE's ECO100 supply option and its 100% renewable energy by 2025, as well as regional power purchase agreements and bulk buy programs.					
4.	Partner with a local university or national lab to research and develop appropriate response plans to ensure seasonal and time dependent impacts on grid are addressed.					
5.	Plan for regional or municipal emergency centers to site battery storage, and/or use renewable energy microgrids, especially in vulnerable communities.					

Strategy E2.2: Electrify transportation

	Actions	SMC	City	PCE	PG&E	Other
1.	Initially focus on fleet electrification opportunities (e.g., school buses, transit, municipal fleets, etc.). Work with Transportation Demand Management programs, transportation network companies to electrify commuter fleets. Provide fleet					

	manager trainings and leadership trainings around true costs and the advantages of clean technologies.					
2.	Accelerate adoption of electric vehicles in the community: provide incentives and expand bulk buy opportunities, including communities of concern. Promote through municipal channels as well as ride and drive events					 State
3.	Pursue state and regional partnerships to promote and incentivize EVs and include low emission biofuel for existing vehicles and off-road equipment alternatives, including electric tractors.				  	 PG&E  RCD

Strategy E2.3: Increase EV charging infrastructure countywide

	Actions	SMC	City	PCE	PG&E	Other
1.	Develop an organized charging infrastructure strategy that incorporates expansion throughout the region including curbside, workplace, fast chargers and at home charging, especially within communities of concern. Include tools for assessment, available incentives and policy templates.				 	
2.	Partner with PCE, PG&E and technology providers to implement EV2Grid strategies for load shaping and resilience.			 	 	
3.	Provide model consumer payment policies at charging stations to support cities and local businesses to install public and workplace charging infrastructure.			 		
4.	Develop model ordinances and policies for Electric Vehicle Charging Infrastructure (EVCI) in multi-unit dwellings and low-income communities. Ordinances should include other building and business types as well.					

Strategy E2.4: Participate in building electrification advocacy

	Actions	SMC	City	PCE	PG&E	Other
1.	Support building electrification through regional and statewide advocacy.					 NGOs
2.	Research gas line issues, gas data and policy pathways to evaluate risks associated with natural gas infrastructure. Based on findings, develop infrastructure improvement plan to address outstanding gas line issues, and clearly communicate ecological, economic, and social benefits of electrification.					

Strategy E2.5: Foster innovative local energy sources and carbon offset projects

	Actions	SMC	City	PCE	PG&E	Other
1.	Explore waste-to-energy (including food waste-to-energy and landfill methane capture) and pyrolysis of unrecyclable plastic waste.					
2.	Explore opportunities for renewable gas, including biogas, digester gas and landfill gas and more efficient district energy systems.					
4.	Study wind, tidal, water storage release hydro power and other renewables in region, supporting uptake through pilot projects.					
5.	Develop a partnership program or regional collaboration for R&D, investments and opportunities in local alternative/clean energy businesses.					
6.	Develop and implement Carbon Farm plans on the Coastside for carbon sequestration, including agricultural waste and food waste (compost).					RCD  

Goal E3. Modernize the grid for resilience and decarbonization

Strategy E3.1: Support integrated distributed energy resources (DER) solutions for resilience and optimization

	Actions	SMC	City	PCE	PG&E	Other
1.	Streamline permit processes (city, county, state, utility) for new DER technologies including for storage and electric vehicle charging infrastructure.					 PG&E
2.	Establish microgrid pilot projects and distributed energy resources at critical facilities across San Mateo County (e.g., schools, hospitals, fire, police), prioritizing opportunities to serve low-income and vulnerable populations.		 Public works	 	 	
3.	Work with advocacy coalitions to shift regulatory barriers to cost-effective multiple use applications for solar+storage, microgrid and other DER project opportunities.			Data		 PG&E
4.	Integrate DER measures into existing utility programs that provide financial and technical assistance, including on-bill repayment.					 PG&E

Strategy E3.2: Utilize equity tools to expand access to clean energy projects and job opportunities

	Actions	SMC	City	PCE	PG&E	Other
1.	Leverage existing networks across San Mateo County (e.g., County Office of Health & Human Services, energy financing, community-based organizations) to target new energy programs and local workforce development opportunities for communities of concern.					NGO
2.	Identify core resources and local San Mateo County barriers to energy efficiency, microgrid, electric vehicle and DER project opportunities.					NGO
3.	Partner with San Mateo County Office of Education, and San Mateo Community College District, regional universities, PCE, PG&E and other organizations to develop new training and					

	local workforce development programs.					
4.	Ensure that all incentives prioritize social equity (e.g., income-related filters for incentives) and assess opportunities to better channel resources to communities of concern.					

Strategy E3.3: Leverage open data and big data opportunities to transform energy systems locally

Actions	SMC	City	PCE	PG&E	other
1. Develop an integrated map of DER project feasibility parameters on easy-to-access shared platform (e.g., with multiple information layers related to solar potential, hosting capacity and other grid analyses).					
2. Use utility distribution system capacity maps to prioritize microgrid, solar+storage and other DER project opportunities, focusing on communities of concern.					PG&E NGO
3. Develop localized metered data (AMI interval data) to understand existing conditions for energy efficiency, demand response and resilience.					PG&E
4. Leverage utility partnership to plan for electrification and grid modernization, including prioritization of improvements (in lieu of new 50-year gas distribution strategy).					PG&E CPUC

Strategy E3.4: Explore and develop innovative financing and funding models for advanced energy community solutions

Actions	SMC	City	PCE	PG&E	Other
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1.	Pursue grants with California Energy Commission, BAAQMD, Office of Planning and Research, federal agencies and local philanthropic organizations with focus on low-income and communities of concern.			Partner		NGO PG&E RCD
2.	Promote existing financing vehicles including property-assessed clean energy (PACE), on-bill financing/repayment, power purchase agreements (PPAs) and energy savings performance contracts.					PG&E RCD
3.	Consider local carbon bonds or carbon taxes to support local clean energy projects that serve all members of the community.					NGO
4.	Advocate for new gas and utility user taxes (UUT) to incentivize electrification and shifting from fossil-fuel based energy sources.			Partner		
5.	Explore new opportunities to leverage private capital for decarbonization initiatives, including bonds, and utilizing public match funding to de-risk private sector investments.					NGO Private



4. Realizing the Vision of One Water

The One Water approach views all water – drinking water, wastewater, stormwater, greywater and more – as resources that must be managed holistically and sustainably. In this chapter, three goals are identified along with strategies to meet those goals. These strategies show how San Mateo County, BAWSCA, water retailers, cities and others can work together to enhance water use efficiency, expand alternative sources of water and support systemic improvements in water resource management throughout the County. These three goals will move the County towards realizing the vision of One Water.

Goal W1. Enhance water use efficiency

Strategy W1.1: Expand use efficiency programs for indoor water

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Promote third-party and self-auditing approaches to identifying water efficiency opportunities including commercial/industrial, and agricultural uses.	 RCD				 RCD
2.	Implement and evaluate cost-effective commercial/industrial water efficiency measures.					RCD
3.	Evaluate and design programs for remaining residential water efficiency opportunities, prioritizing communities of concern.					
4.	Work with city inspectors to ensure enforcement of state requirements for water efficient fixtures and appliances for new buildings and retrofits.					
5.	Update mandatory ordinances for water efficiency above state requirements.					

Strategy W1.2: Expand programs, policies and best practices for outdoor water use efficiency

Actions	SMC	BAWSCA	Retailer	City	Other
1. Provide and promote standardized landscape conversion designs (e.g., Lawn-Be-Gone programs) for residential customers.	 RCD 				
2. Provide efficient irrigation standards to assist commercial property owners with landscape design and management decisions.					
3. Promote Bay Friendly Landscape Guidelines ⁴ and other resources for new buildings and landscape replacement.	 RCD 				
4. Expand programs to educate local landscape professionals on technologies and strategies for water conservation.					
5. Promote agriculture irrigation efficiency for row crop and other irrigated agriculture.	RCD 				RCD 

Strategy W1.3: Provide real-time water use data

Actions	SMC	BAWSCA	Retailer	City	Other
1. Promote the uptake and implementation of advanced metering infrastructure (AMI) and smart meters for water, prioritizing communities of concern.					RCD
2. Develop new programs to provide real-time water consumption data to residents and business owners to influence behavioral usage.					

⁴ www.stopwaste.org/resource/brochures/bay-friendly-landscape-guidelines-sustainable-practices-landscape-professional

3.	Support pilots for utilizing app-enabled home water monitoring approaches.					
4.	Require submetering in new construction.					
5.	Fund and develop leak detection at the building level, prioritizing multi-family units and communities of concern.					
6.	Adopt Energy Star Portfolio Manager benchmarking tools, including irrigation submeters, for new construction and existing building with high use projections.					

Goal W2. Expand alternative sources of water

Strategy W2.1: Encourage water reuse

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Increase education and outreach related to potable and non-potable reuse opportunities, especially for communities of concern.	 RCD 				NGO
2.	Support development of on-site non-potable reuse regulatory/implementation framework, including model ordinances for new construction.					
3.	Provide additional incentives and resources for non-potable reuse (e.g., greywater, rainwater, stormwater) for landscape irrigation, and tailwater recycling for greenhouses, including both demonstration projects and trainings.					RCD  

Strategy W2.2: Support expanded use of utility-supplied recycled water

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Promote use of recycled water in pre-plumbing and landscape.					
2.	Bring awareness and engage in outreach for potable reuse.					NGO

3.	Promote potable reuse pilot projects and advancement of regional potable reuse projects.					
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Strategy W2.3: Continue to explore new innovative technologies and land uses for alternative water supplies

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Support investigation of innovative brackish groundwater desalination projects.					
2.	Explore opportunities related to surface water management and integrated water management on the Coastside.					RCD  
3.	Support innovative water technologies (e.g., fog, condensation, recycled water and energy)					NGO

Goal W3. Support systemic improvements

Strategy W3.1: Engage stakeholders countywide on Integrated Regional Water Management

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Support awareness and community outreach related to water supply, wastewater treatment, flood and stormwater management and the impacts of climate change.					RCD SWCB NGO
2.	Promote school programs focused on water efficiency and conservation.	SMCOE 				NGO
3.	Expand green infrastructure for stormwater management including permeable pavement, vegetated stormwater features, streetscape improvements and incorporating stormwater/flood conveyance into city planning.					RCD

Strategy W3.2: Support resilience of regional wastewater treatment plants to mitigate environmental health impacts

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Identify and mitigate highest priority facility risks at wastewater treatment plants across the County, including consideration of countywide sea level rise projections and hazards.	RCD 				BACWA
2.	Encourage new technologies for wastewater treatment plan resilience (e.g., horizontal levees to address backflow risks)			WWTP agencies		BACWA

Strategy W3.3: Encourage innovation for water utilities

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Assess water rates and ensure true cost of water as part of stakeholder engagement.					
2.	Improve leak detection and service response on utility side of the meter.					
3.	Explore opportunities for open data related to water consumption to spur innovation in water efficiency programs and management practices.					RCD
4.	Utilize real-time water use data for machine learning, including other data sources such as inspection records.					

5. Energy-Water Nexus: Collaborative Impact

This strategic plan focuses on energy and water resources as foundational to modern life and prosperity across San Mateo County. Energy is inextricably linked to water in many ways. First, energy is required to for heating water within homes and businesses. Reducing water use, especially hot water use, reduces energy use in San Mateo County. Similarly, water is used for energy and electricity generation, including for hydropower and geothermal energy, cleaning solar photovoltaic panels and as cooling water for power plants. Wastewater treatment plants can generate energy onsite though the capture and use of bigas. Proper timing of water pumping can help balance energy loads based on the needs of the grid (supply or demand). Water can also be an inexpensive way to store energy. For example, Hawaii has a fleet of 500 grid enabled heat pump water heaters which are used to store energy during the day when there is an excess of renewables on the grid. Additionally, there are water technologies which save energy such as counterflow waste water exchange pipes which can shift the heat from outgoing water from a building over to heat incoming cold water.

Engagement with diverse stakeholders across both energy and water is important when addressing the issues and challenges facing the County regarding the sustainable use of both energy and water resources. The following actions have both energy and water benefits and are therefore of the highest impacts possible across all sectors.

Strategy Energy & Water (E&W)1: Develop collaborative impact projects to optimize and reduce energy and water use

	Actions	SMC	BAWSCA	PCE	PG&E	Other
1.	Investigate opportunities to initiate direct water-to-energy projects, by identifying locations of existing or new large volume water movement with energy-generation capacity. Consider pilots at these locations.					 
2.	Pursue development of water tanks as energy storage, including grid enabled heat pump water heaters. Investigate where other large water tanks can be used for energy storage. Pursue pilot projects.					 
3.	Develop pilot deploying counterflow wastewater heat exchangers in multifamily or mixed-use buildings.					



6. Looking Ahead

While many important and noteworthy actions are identified in this strategic plan, implementation requires continued coordination. Prioritization of efforts was a key consideration at stakeholder meetings during the plan development. Policy changes were identified as a priority as they have great power to transform markets and affect change in energy and water uses and infrastructure decisions. Setting up tools and processes that will allow stakeholders to collaborate most effectively is also a priority.

6.1 Innovation and the Green Economy

The *San Mateo County Energy and Water Strategy 2025* implementation actions must harness the power of innovation and collaboration, working with the private sector and across governmental agencies to create a thriving, regenerative ecosystem and green economy. Innovation is a major part of San Mateo County, home to industry-leading companies in biotechnology, computer software, green technology, financial management, health care, education, and transportation solutions.

In this strategic plan, we have identified many additional opportunities for innovation that align with clean, reliable energy and water. These include leading innovative opportunities related to:

- **Data analytics and real-time optimization.** Building systems are increasing in sophistication and controllability, with the ability to provide preventative maintenance. With smart meters providing real-time energy and water data, as well as two-way communication capabilities, new opportunities are emerging to optimize sustainable consumption. Data at the community level must also be leveraged for new programs and policy adoption.

The green economy is defined as an economy that reduces environmental impacts and aims for sustainable development without degrading the environment.

- **Distributed resources.** Increasingly, energy and water resources are becoming spatially distributed. More and more buildings are self-generating electricity through solar and reusing water on-site through greywater recycling and rainwater catchment systems.
- **Technology.** In the energy sector, battery storage is rapidly falling in cost, with significant innovation occurring at the intersection of solar PV, buildings and electric vehicles. New infrastructure, such as microgrids and aggregated distributed energy resources, are creating new players in energy markets. Additionally, there are technologies which have energy and water benefits such as the heat-pump water heater, heat exchangers, and use of water for energy storage, based on the needs of the grid's supply/demand needs. Some of the most recent exciting developments are related to app-enabled programs for energy management, renewable generation, water conservation, and leak detection. These, combined with Internet of Things (IOU) will enable consumers and building managers to track and influence consumption and generation in real time.
- **Financing and financial opportunity.** New financing innovations are also essential to transforming our energy and water systems. Crowdfunding, utility/sustainability as a service, power-purchase agreements, bulk buy programs, and leveraging private capital in new ways all help to make the transition to more sustainable energy and water systems accessible to all, including low-income residents and other communities of concern.
- **Making the financial case.** At the end of the day, ensuring a strong financial and business case for action is essential to supporting the transition to a clean energy and water future. A positive return on investment (ROI) and accurate lifecycle costing is needed in evaluating investments for new programs and policies.
- **Workforce Development.** Green jobs are growing steadily in the region. With clear state climate targets, combined with state and federal tax credits and incentives, the Bay Area now leads the nation in clean tech jobs, with 11% of all US clean tech jobs located in the region⁵. Our region now exports more than \$1 billion in clean tech exports, including building control systems and electric vehicles. Finally, as part of our commitment to social equity and justice, we seek to promote middle wage “green collar” jobs that offer better pay for low- and middle-skilled workers.

6.2 Priority Workstreams

This plan identifies many important strategies and actions to achieve a collective vision for the transition to a clean energy and water future. As described in Figure 11 and Figure 12, a number of foundational actions are identified in this strategic plan as priorities and will be the focus for immediate

⁵ <http://www.bayareacouncil.org/economy/green-jobs-actually-are-sprouting-in-bay-area/>

action. All actions identified in the energy-water nexus section are also considered primary and included in the first implementation phase discussed below. Additionally, through the Resource Management and Climate Protection committee (RMCP), there will be a continued exploration of setting up working groups for meta-level actions such as grid transformation and around the proper integration of social equity in energy and water planning.

Figure 11. Foundational Actions for Energy

Goal	Foundational Actions
E1. Optimize and reduce	<p>E1.2 Policy and high efficiency design approaches for Zero Net Carbon (“ZNC”, also called “all electric”) in new construction 1.2.2 – Adopt local reach codes, streamlining permitting going beyond state requirements to ZNC. Include financial and technical resources and trainings for low EUI construction and ZNC system installations</p> <p>E1.3 – Leverage New Tech for existing building electrification 1.3.4 – Local workforce development include cross-training for plumbing and electrical trades, include customer education and training for the trades around all electric (retrofits and NC). Include development of educational resources for inspectors, permitting, plan checkers, etc.</p>
E2. Decarbonize and shift to clean energy	<p>E2.1 – Support rapid community shift to 100% GHG free electricity 2.1.1 – Partnerships, awareness campaigns, incentives to maximize local PV combined with energy storage for residential and commercial buildings. For agricultural sector – solar powered water pumps.</p> <p>E2.2 – Electrify Transportation 2.2.1 2.2.2 – Electrify fleets and community vehicles – Provide incentives, bulk buys, ride and drives, and city/county fleet trainings.</p> <p>E2.3 - Increase EV Charging Infrastructure Countywide 2.3.1- Develop Countywide charging infrastructure strategy incorporating curbside, workplace, fast chargers and home charging, including Multifamily dwellings. Final deliverable to include tools and templates.</p>
E3. Modernize the grid for resilience and decarbonization	<p>E3.1 – Support DER for reliance and optimization 3.1.2 – Pilot microgrids at critical facilities, prioritizing social equity and vulnerable populations</p> <p>E3.4- Develop innovative financing and funding models for advanced energy community 3.4.3 – Create regional local carbon bonds or taxes for equitable clean energy projects</p>

Figure 12. Foundational Actions for Water

Goal	Foundational Actions
W1. Enhance water use efficiency	<p>W1.1- Expand use efficiency programs for indoor water 1.1.2- Implement cost effective commercial industrial water efficiency measures</p> <p>W1.2 – Expand programs for outdoor water use efficiency 1.2.2 – Efficient irrigation standards for commercial property owner decision making, and education/trainings for landscape professionals</p> <p>1.3.1 – (Data) – Implement Advanced Metering Infrastructure</p>
W2. Expand alternative sources of water	<p>W2.1 – Encourage water reuse 2.1.3 – Incentives and resources for non-potable reuse for landscape irrigation, and for agriculture- tailwater recycling for greenhouses. Develop pilots and workforce trainings.</p> <p>W2.2 – Support expanded use of utility supplied recycled water 2.2.2- promote awareness around potable reuse. Deploy pilots and conduct outreach campaigns.</p>
W3. Support systemic improvements	<p>W3.1 – Engage stakeholders county wide on Integrated Regional Water Management 3.1.1 – Awareness and outreach related to water supply, wastewater treatment, flood and stormwater management. 3.1.3 -Stormwater (capture) – expand green infrastructure and stormwater/flood conveyance into cross-departmental city planning.</p> <p>W3.2 – Support resilience of regional wastewater treatment plants to mitigate environmental health impacts.</p> <p>W3.3 - Encourage Innovation for water utilities 3.3.1 Asses water rates and incorporate true cost of water.</p>

6.3 Monitoring and Tracking

Key implementation and resource partners will continue acting together and individually to advance innovative energy and water solutions, policies and programs, including the coordination of monitoring and tracking progress. In Figure 13 and Figure 14, a number of key performance indicators (KPIs) are identified for energy and water to track progress towards the vision and guiding principles set forth in this plan. Many of these KPIs and associated metrics are already being tracked by various partners, including the County through its open data portal, PG&E, /PCE and BAWSCA.

Figure 13. Tracking Progress on Energy

Key Performance Indicator	Metric
Energy consumption (electricity and natural gas)	kWh therms
Electricity supply (renewable energy, local distributed energy resources)	kW of local solar PV, battery storage % renewable energy, or GHG -free electric supply
Electricity emissions factor	MTCO ₂ e/kWh
Electric vehicle registrations and infrastructure	Electric vehicle registrations (BEV and PHEV %) # of electric vehicle charging infrastructure

Figure 14. Tracking Progress on Water

Key Performance Indicator	Metric
Water consumption	Total gallons per year Gallons per capita per year
Diverse water sourcing	BAWSCA Annual Survey (%)



7. Conclusion

Since the adoption of the 2012 San Mateo County Energy Strategy, San Mateo County has been a leader in providing solutions for the efficient use of energy and water resources and reduction of greenhouse gas emissions. However, the environment for solutions has changed greatly since 2009. The establishment of Peninsula Clean Energy and the California drought are two examples.

The updated San Mateo County Energy and Water Strategy 2025 document proposes (for energy) efficiency, innovation, resilience, advancement and deployment of new technologies, new policy, and education, to achieve a collaboratively-developed set of energy goals to support our electrical grid. These approaches to managing energy resources in San Mateo County will help local governments achieve greenhouse gas reduction goals. For water, implementation of BAWSCA's Long-Term Reliable Water Supply Strategy, promotion of One Water approaches, and leveraging data are key to improving resiliency to drought.

Stakeholders in San Mateo County have shown a desire to lead by intently focusing on regional partnerships between policy makers, private sector partners, and the public, to increase collaboration around achieving energy and water management goals.

Supporting the transition to a clean energy future and regionally-coordinated One Water systems requires participation from all sectors of the community, local governments, and other regional agencies. San Mateo County will continue to steward the transition through shared programs, outreach, education and coordination of funding opportunities. The identified goals, strategies, and actions in the Strategy represent a holistic pathway for San Mateo's energy transition and realization of the One Water vision.

Acknowledgements

Project Originators

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Derek Hansen

Mynt Systems

Narsimha Irrinki

Kaiser Permanente

Tom Kabat

Carbon Free Silicon Valley

Ted Ko

Sunwork

Kent Leacock

Proterra

Ortensia Lopez

El Concilio of San Mateo County

Rafael Reyes

Peninsula Clean Energy

Amelia Timbers

SamTrans

Frank Wasco

Clean Coalition

Water Working Group

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Jarrad Fisher

San Mateo County Resource Conservation District

Eric Hansen

Silicon Valley Clean Water

Narsimha Irrinki

Kaiser Permanente

Andree Johnson

Bay Area Water Supply and Conservation Agency

Resource Management and Climate Protection (RMCP) Committee

Deborah Gordon, Chair

Town of Woodside

Maryann Moise Derwin, Vice Chair

Town of Portola Valley

Dave Pine

County Supervisor

Don Horsley

County Supervisor

Beth Bahtnagar

Sustainable San Mateo County

Adrienne Carr

BAWSCA

Bill Chiang

Pacific Gas & Electric

Robert Cormia

Foothill-DeAnza College

Rick DeGolia

Town of Atherton

Pradeep Gupta

South San Francisco

Ortensia Lopez

El Concilio of San Mateo County

Diane Papan

City of San Mateo

With Assistance from DNV GL

Betty Seto

Sarah Isabel Moe



**PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence**

DATE: March 19, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors

FROM: Leslie Brown, Director of Customer Care

SUBJECT: Authorize an adjustment in Peninsula Clean Energy's (PCE's) rates in 2019 to maintain a 5% discount in generation charges compared to PG&E. (Action)

BACKGROUND:

In a previous Board meeting, the PCE Board of Directors authorized PCE staff to make adjustments to PCE's generation rates as needed following PG&E's 2019 rate updates to maintain a minimum 5% net discount in generation costs to PCE customers. In part due a variety of delays in regulatory decisions, PG&E sought approval to implement 2019 rate adjustments over multiple phases resulting in some rate adjustments occurring March 1, 2019, with other adjustments to come May 1, 2019, and additional adjustments possible on July 1, 2019.

DISCUSSION:

PCE staff will be working with Calpine to implement rate adjustments to PCE Generation rates as needed to maintain PCE's value proposition of a minimum 5% discount while also attempting to minimize the total number of rate adjustments customers experience. On May 1, 2019, new PCE rates will go into effect that account for the PG&E generation rate increase from March 1, 2019. This rate change will coincide with the transition to Summer billing rates for all customers as well as some PG&E adjustments to non-generation rate components.

The 2019 ERRA (Energy Resource Recovery Account) adjustments, which will include the new PCIA rates and additional PG&E generation changes, that we previously believed would also be implemented on May 1, 2019, are now delayed until at least July 1, 2019. Once these adjustments are finalized as a result of the ERRA decision, PCE will make another rate adjustment which is expected to occur on July 1, 2019.

FISCAL IMPACT:

This action will ensure that PCE is able to continue the 5% value proposition of ECOplus to our customer base while also maintaining appropriate revenue requirements for operations. PCE's rates will be adjusted in line with PG&E's Generation rate changes and then reduced to reflect the increase in the PCIA. A full reporting of the financial impact will be brought to the Board after the necessary rate adjustments are implemented.



**PENINSULA CLEAN ENERGY AUTHORITY
JPA Board Correspondence**

DATE: March 19, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

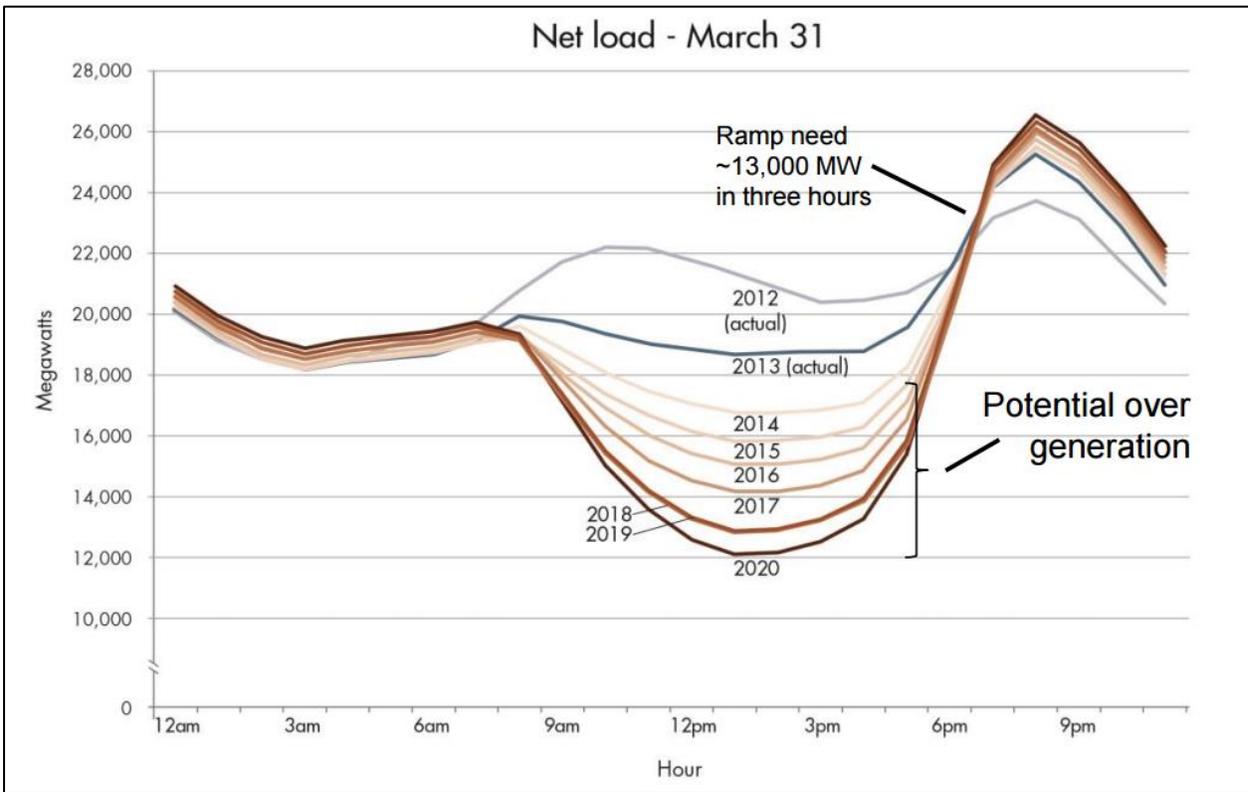
TO: Honorable Peninsula Clean Energy Authority Board of Directors
FROM: Leslie Brown, Director of Customer Care
SUBJECT: Default Time of Use (TOU) Rates Overview

BACKGROUND:

California's investment in and commitment to renewable energy over the past decade has resulted in thousands of megawatts of new solar capacity installed throughout the state. This has transformed the state's wholesale electricity market so that during the mid-day peak demand period (e.g. 11am to 3pm), California's grid is flooded with inexpensive solar power and excess power is sometimes exported to other states at negative prices.

This abundance of mid-day solar power has shifted peak demand for conventional generation to later in the day (4pm to 9pm), when residential energy use peaks and solar generation wanes. Viewed graphically, the steep demand ramp in the evening hours is referred to as "the Duck Curve."

To address the imbalance of energy demand and pricing, regulators in California have for years been driving towards a fundamental restructuring of retail energy for all customer classes. An initial pilot study on residential Time of Use (TOU) rates was conducted during the summer of 2016 across the three investor-owned utility (IOU) territories, the findings of which informed the structure of the proposed new default residential TOU rate. Residential customers throughout California that are not currently on a TOU rate are scheduled to transition to TOU rates starting in October 2020.

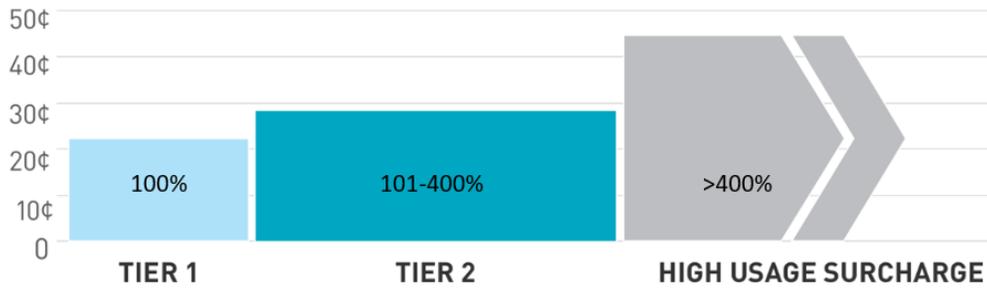


The “Duck Curve”, Source: California Independent System Operator

Tiered Rates vs. Time-of-Use Rates

To date, tiered rate structures have been standard for residential customers. In PG&E’s territory, the standard tiered residential rate schedule is designated ‘E1.’ The vast majority of PCE residential customers are currently being served under the E1 tariff (approximately 255K customers). Under the E1 tariff, customers are charged on a volumetric basis, with increasing rates based on total monthly electricity usage. Customers are allowed a monthly “baseline” quantity of electricity usage at the lowest rate, determined by climate zone and kilowatt-hours typically required per day. The baseline rate is then increased through two higher-priced rate tiers, depending on customers’ usage beyond the baseline quantity. This schedule’s pricing is not time-dependent, unlike TOU rates.

Tiered pricing is designed to reward efficiency and reduce power use, but tiered pricing is not effective in mitigating the steep ramp in demand for power between the hours of 4pm - 9pm. Tiered pricing can also penalize strategic electrification efforts, by charging higher rates for additional electricity required to charge a new electric vehicle or heat pump water heater.



Time-of-Use (TOU) rates are based on the time of day that customers use power. The highest rates apply to peak-period usage, and lowest prices to off-peak usage. These schedules may also have a volumetric element, such as lower prices across TOU periods for a baseline quantity of power. Customers on TOU schedules are incentivized to reduce their consumption during the grid’s hours of highest demand, and to use power during the hours of greatest solar abundance.

When customers are transitioned from tiered pricing to TOU pricing, it is inevitable that some customers will naturally save money, and some won’t - due to the wide variety in hourly usage profiles. To mitigate customer uncertainty about the potential financial impacts of moving to a TOU rate, PG&E has committed to “bill-protect” customers in their first year of TOU service. They offer to credit customers the annual difference if they spend more on TOU than they would have on an E1 schedule.



CPUC and PG&E Direction

As part of a statewide effort directed by the CPUC, PG&E will begin full-scale transition of residential customers to TOU rates in October of 2020, impacting 250,000-500,000 customers monthly through October 2021. Customers on the new TOU rate will pay the highest prices between 4pm - 9pm daily including weekends and lower prices during all other hours.

Starting in 2018, PG&E began piloting this TOU transition with approximately 150,000 residential E1 customers, approximately 25,000 of which are CCA customers. All pre-selected Phase 1 customers and voluntary enrollees were offered bill protection for their first year on the TOU-C rate. CCA customers’ protection on the generation side of the bill is provided by the CCAs, while the non-generation portions of the bill is protected by PG&E. All customers participating in the Phase 1 transition were sent communications from PG&E including personalized information about their usage and tips on how to be successful on TOU rates.

DISCUSSION:

SVCE, Marin Clean Energy, and Sonoma Clean Power each have customers participating in PG&E's 2018 Phase 1 pilot roll-out of the new TOU rate (known as TOU-C). This rate was also made available on a voluntary basis to all PG&E customers. PCE currently has about 250 residential customers on the TOU-C rate.

Under the marketing, education and outreach (ME&O) requirements set forth by the CPUC, PG&E communicated directly with Phase 1 customers in four separate direct mailings prior to the transition. In the case of CCA customers, co-branded letters were sent at 90, 60, and 30 days prior, followed by a welcome letter during the month of the transition. The 60-day-prior communication included a customized rate comparison based on that customer's interval meter data. It displayed what the customer would pay on an E1 schedule versus TOU-C and another TOU option. This helped ensure that an individual customer's choice of rate was based on the best-available information.

Early analysis of data from the TOU pilot is showing that the transition from E1 to a TOU rate to be moderately effective at reducing load during peak times. Loads were assessed for the Summer time period (June through September) using standard Demand Response protocol models across all day types (week day, weekend/holiday), climate zones (hot, moderate, cool) and customer segments (CARE, non-CARE). Load reductions were observed across all different segments and day types during peak hours with non-CARE customers reducing more (up to 5%) than CARE customers (around 0.5%). Hotter climate zones were also found to shed the most load during peak times. Off peak reductions were also observed across all day types and customer segments, suggesting an absolute reduction of usage rather than shifting of loads to less expensive periods. These results are preliminary and will require further analysis by both PG&E and the Phase 1 CCA's.

The utility-wide transition in 2020-2021 is meant to be revenue neutral for the utility and participating CCAs, as well as cost neutral to the overall customer base - though individual results may vary. Most customers are expected to see a small increase or decrease in their annual energy costs, if there is no change to the way they currently use energy.

Early indications suggest that slightly more than half of the participating customers will be entitled to some amount of bill protection at the end of the pilot period. The majority of these customers will fall into the \$.01-\$10.00 range and the fewest number of customers falling into the >\$100.00 range for a 12-month period. PG&E will report out a more complete analysis of the Phase 1 customer impact and year 1 bill protection in July.

PCE Transition Considerations

Approximately 96% of PCE's residential customers (255,000) are currently subscribed to the E1 tiered rate schedule. These customers are currently scheduled for transition in one of the later phases of the rollout plan (September of 2021). PCE staff believe transitioning to TOU rates towards the end of the rollout is a good plan because earlier-phased CCAs will troubleshoot potential issues and problems.

PCE staff is working closely with the PG&E TOU Transition team and the other PG&E CCAs on a collaborative rollout plan that will ease transition for all affected customers. In summer of 2019, based on a full year of results from the Phase 1 rollout by PG&E and the participating CCA TOU

customers, staff will have additional data with which to evaluate the full financial impacts of the TOU-C rate, and the proposed bill protection costs.

Next Steps

April Board meeting

- PCE staff will present preliminary bill protection analysis along with PG&E staff and answer further Board questions about the TOU transition plan

Summer 2019

- PCE staff will provide an update on the results from Phase 1 pilot rollout

By October 2019, confirm participation with PG&E for CPUC filings

- Confirm PCE TOU transition and timing
- Confirm PCE general rate structure and bill protection plans for first year of TOU operation

FISCAL IMPACT:

Intended to be revenue neutral but will depend on individual customer usage patterns during peak and off-peak pricing periods.



PENINSULA CLEAN ENERGY
JPA Board Correspondence
General Counsel

DATE: March 14, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: Majority Present

TO: Honorable PCE Joint Powers Board

FROM: David A. Silberman, General Counsel
Matt Sanders, Associate General Counsel

SUBJECT: Authorize Agreements Between the Peninsula Clean Energy Authority and Braun Blasing for Provision of Legal Services in an amount not to exceed \$250,000.

RECOMMENDATION:

Adopt a Resolution authorizing the General Counsel to execute with the law firm of Braun Blasing Smith Wynne amendment(s) to the existing retention agreement or, alternatively, additional retention agreements in a form approved by the General Counsel as long as the total amount of all amendments or agreements provide for a total expenditure not to exceed \$250,000.

BACKGROUND:

The County Counsel's Office provides legal services to the Peninsula Clean Energy (PCE) Authority pursuant to a contract approved by the Board March 24, 2016.

Pursuant to that agreement, the County Counsel serves as General Counsel to the Board and has authority to retain services of outside counsel in an amount not to exceed \$25,000.

Certain projects important to PCE can benefit from time-to-time by the assistance of lawyers who focus primarily on those areas of law, including the litigation of complicated regulatory proceedings before the California Public Utilities Commission ("CPUC").

The PCE Board in August of 2016 approved the retention of Troutman Sanders to provide assistance in negotiating PCE's first power purchase agreements and creating PCE's "multi-party lockbox". On October 27, 2016, the PCE Board approved retention agreements with Davis, Wright & Tremaine, Keyes & Fox, and Winston & Strawn, each at amounts not to exceed \$100,000. Subsequently, the Board has approved amendments to the agreements with the last three named firms in 2017 and 2018 to allow for additional assistance.

In addition, staff has worked with the firm of Braun Blaising Smith Wynne (“Braun Blaising”) on small regulatory projects and has received regular regulatory updates from the firm. That update service is one that Braun Blaising performs for many CCAs on a shared-cost basis. To date, the expenditure for Braun Blaising’s assistance has been within staff’s authority.

DISCUSSION:

PCE has been very satisfied with Braun Blaising’s assistance to date.

Recently, PCE began working with Braun Blaising on a significant regulatory matter. PCE and a number of other CCAs wish to work with Braun Blaising on a second significant regulatory matter. Between the two matters and the ongoing regulatory updates, PCE staff will have exceeded its expenditure authority.

Accordingly, we are asking the Board to authorize the General Counsel to execute amendment(s) to the existing agreement or alternatively, additional agreements in a form approved by the General Counsel as long as the total amount of all amendments or agreements provide for a total expenditure not to exceed \$250,000. We believe that this increased amount will provide sufficient authorization to last through 2019.

PENINSULA CLEAN ENERGY AUTHORITY, COUNTY OF SAN MATEO, STATE OF CALIFORNIA

* * * * *

RESOLUTION AUTHORIZING THE GENERAL COUNSEL TO EXECUTE WITH THE LAW FRIM OF BRAUN BLAISING SMITH WYNNE AMENDMENT(S) TO THE EXISTING RETENTION AGREEMENT OR, ALTERNATIVELY, ADDITIONAL RETENTION AGREEMENTS IN A FORM APPROVED BY THE GENERAL COUNSEL AS LONG AS THE TOTAL AMOUNT OF ALL AMENDMENTS OR AGREEMENTS PROVIDE FOR A TOTAL EXPENDITURE NOT TO EXCEED \$250,000

RESOLVED, by the Peninsula Clean Energy Authority of the County of San Mateo, State of California, that

WHEREAS, the Peninsula Clean Energy Authority (“PCE”) was formed on February 29, 2016; and

WHEREAS, the JPA Agreement forming the Authority delegates to the Board the power to hire a General Counsel pursuant to Paragraph 3.3.2; and

WHEREAS, the San Mateo County Counsel’s Office has been appointed General Counsel and has been delegated authority to retain outside legal services in amounts not to exceed \$25,000; and

WHEREAS, the General Counsel has determined it was necessary to seek outside legal services related to regulatory law, including from Braun Blaising Smith

Wynne (“Braun Blaising”), and believes Braun Blaising to have provided high-quality legal service; and

WHEREAS, the scope of Braun Blaising’s assistance has been expanding, to include complex regulatory proceedings on behalf of PCE and, in part, because it works with a number of other CCAs in collaborative efforts, in which PCE participates and pays a share, and the cost of Braun Blaising’s legal services has now exceeded staff authority.

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that the General Counsel is authorized to execute with the law firm of Braun Blaising amendment(s) to the existing retention agreements or, alternatively, additional retention agreements in a form approved by the General Counsel as long as the total amount of all amendments or agreements provide for a total expenditure not to exceed \$250,000.

* * * * *

[CCO-113499]



**REGULAR MEETING of the Board of Directors of the Peninsula
Clean Energy Authority (PCEA)
Thursday, February 28, 2019
MINUTES**

Peninsula Clean Energy
2075 Woodside Road, Redwood City, CA 94061
6:30 p.m.

CALL TO ORDER

Meeting was called to order at 6:34 p.m.

ROLL CALL

Present: Dave Pine, County of San Mateo
Carole Groom, County of San Mateo
Jeff Aalfs, Town of Portola Valley, *Chair*
Rick DeGolia, Town of Atherton, *Vice Chair*
Charles Stone, City of Belmont
Madison Davis, City of Brisbane
Michael Brownrigg, City of Burlingame
Rae P. Gonzalez, Town of Colma
Roderick Daus-Magbual, City of Daly City
Carlos Romero, City of East Palo Alto
Catherine Mahanpour, City of Foster City
Harvey Rarback, City of Half Moon Bay
Elizabeth Cullinan, Town of Hillsborough
Catherine Carlton, City of Menlo Park
Wayne Lee, City of Millbrae
Deirdre Martin, City of Pacifica
Ian Bain, City of Redwood City
Marty Medina, City of San Bruno
Laura Parmer-Lohan, City of San Carlos
Rick Bonilla, City of San Mateo
Flor Nicolas, City of South San Francisco
Daniel Yost, Town of Woodside

Staff: Jan Pepper, Chief Executive Officer
Andy Stern, Chief Financial Officer
Rafael Reyes, Director of Energy Programs

Leslie Brown, Director of Customer Care
Kirsten Andrews-Schwind, Senior Manager of Communications and Outreach
Matthew Sanders, Deputy County Counsel
Tj Carter, Marketing Associate
Anne Bartoletti, Board Clerk/Executive Assistant to the CEO

A quorum was established.

PUBLIC COMMENT:

James Tuleya, Carbon Free Silicon Valley
Mark Roest, SeaWave Battery

ACTION TO SET THE AGENDA AND APPROVE CONSENT AGENDA ITEMS

Motion Made / Seconded: Lee / Bain

Motion passed unanimously 20-0 (Absent: Brisbane, San Carlos)

REGULAR AGENDA

1. CHAIR REPORT

Jeff Aalfs—Chair—announced an opening on the Citizens Advisory Committee and asked for volunteers to assist with candidate selection. Wayne Lee, Charles Stone, Rick Bonilla, and Marty Medina volunteered. Jeff reported that there are two Board members interested in serving on the Executive Committee, and he will make that appointment at the March Board meeting.

2. CEO REPORT

Jan Pepper—Chief Executive Officer—reported that Jay Modi—Director of Finance and Administration—is leaving PCE. She reported that PCE is continuing the search for a Manager of Distributed Energy Resources (DER) Strategy, an offer has been accepted for a Senior Regulatory Analyst, and that two new positions have been posted for a Senior Financial Analyst and an EV Program Specialist.

Jan reported that all cities and the county are EPA Green Power Communities and listed on the EPA website. She also reported that all ECO100 jurisdictions are EPA Green Power Partnership Cities and are also listed on the EPA website.

Jan reported that Jeff Aalfs and PCE staff met with CPUC (California Public Utilities Commission) Commissioner Martha Guzman-Aceves and Commissioner Liane Randolph on January 30, and that on February 5, Jeff Aalfs, Rick Bonilla, Rick DeGolia, and PCE staff met with Commissioner Cliff Rechtschaffen and Nidi Thakar, Advisor to CPUC President Michael Picker.

Jan reported that PCE expects to make a rate adjustment in May when both PG&E's generation rate changes and the PCIA have been finalized. She also reported that PCE staff met with Merced County representatives on February 20 to explore their interest in forming a CCA.

PUBLIC COMMENT:

James Tuleya, Home Energy Analytics

3. CITIZENS ADVISORY COMMITTEE REPORT

Michael Closson—Chair—reported that there is an opening on the Citizens Advisory Committee (CAC) and that they are in the process of creating more working groups to add value where appropriate.

4. AUDIT AND FINANCE COMMITTEE REPORT

Jeff Aalfs reported that PCE’s finances are strong and that the Audit and Finance Committee discussed diversifying funds among different investment managers.

5. SELECTION OF THE CHAIR AND VICE CHAIR

Wayne Lee—Board member representing the City of Millbrae—reported that the Nominating Committee met and recommended Jeff Aalfs for Chair, and Rick DeGolia for Vice Chair of the PCE Board of Directors.

Motion Made / Seconded: Lee / Romero

Motion passed 21-0 (Abstained: Atherton)

6. AUTHORIZE AGREEMENT WITH REACH STRATEGIES TO ADMINISTER THE 2019-2022 RIDE & DRIVE PROGRAM FOR AN AMOUNT NOT TO EXCEED \$750,000 OVER THREE YEARS

Rafael Reyes—Director of Energy Programs—presented results from the 2018 Ride & Drive program and reviewed the Local Program Roadmap. Rafael outlined funds currently allocated to Local Programs, proposed partnering with non-profits to increase participation in the Ride & Drives, and presented a goal of increasing the number of Ride & Drive events each year.

Board members discussed renewing the EV (Electric Vehicle) incentive program for 2019; how to reach low-income communities for a used-hybrid incentive program; barriers to EV adoption; EV charging infrastructure; public transit and municipal fleet options; bicycling infrastructure across San Mateo County; and job creation. Rafael reported that 90% of vehicles sold are gas powered vehicles, which comprises the largest block of greenhouse gas emissions in the county.

PUBLIC COMMENT:

Mark Roest, SeaWave Battery
Gladwyn D’Souza, Sierra Club

Motion Made / Seconded: Stone / Romero

Motion passed 21-1 (Opposed: Menlo Park)

7. AUTHORIZE AN EXTENSION TO JUNE 30, 2019 FOR THE ADJUSTMENT IN PENINSULA CLEAN ENERGY’S (PCE’S) RATES TO MAINTAIN A 5% DISCOUNT IN GENERATION CHARGES COMPARED TO PG&E

Leslie Brown—Director of Customer Care—reported that PCIA and PG&E’s generation rates will be changing but both are still in flux. She requested the Board authorize an extension to June 30, 2019, for staff to make adjustments in PCE’s rates for 2019 to maintain a 5% discount in generation charges compared to PG&E.

Motion Made / Seconded: Bain / Yost

Motion passed unanimously 22-0

8. BOARD MEMBERS’ REPORTS

None.

ADJOURNMENT

Meeting was adjourned at 8:18 p.m.



**PENINSULA CLEAN ENERGY AUTHORITY
Board Correspondence**

DATE: March 19, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCE) Board of Directors

FROM: Kirsten Andrews-Schwind, Senior Manager, Communications and Outreach
Leslie Brown, Director of Customer Care

SUBJECT: Update on PCE's Marketing and Outreach Activities and Enrollment Statistics

BACKGROUND:

The Communications Team has been busy managing press coverage, public relations, local programs marketing, community outreach, PCE's online and social media presence, responding to customer requests, and preparing future campaigns.

DISCUSSION:

Congratulations to San Mateo County and all 20 Cities for Recognition in EPA's Green Power Program!

San Mateo County and all cities and towns participating in PCE have been awarded recognition as USEPA Green Power Communities for voluntarily promoting the use of renewable energy. This achieves one of the Board of Director's strategic goals set in 2017.

Signs recognizing this status have been mailed to your cities, and PCE will happily send a photographer to document them being posted and share this on our social media. PCE is also preparing a press release and templates for individual city press releases to be used for April Earth Day announcements and celebrations.

Jurisdictions that have chosen ECO100 for their municipal accounts have gained additional recognition as EPA Green Power Partners. Congratulations to Atherton, Belmont, Brisbane, Burlingame, Colma, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Portola Valley, Redwood City, San Carlos, San Mateo, Woodside, and the County of San Mateo.

Upcoming Community Outreach Including Earth Day Events

Peninsula Clean Energy will participate in the following events for community outreach. Please let us know if you would like to join us at any event or suggest other events in your community.

Date	Event Name	Location	Time
30-Mar	District 5 Together	Daly City	11:00am - 4:00pm
4-Apr	Sustainable San Mateo County Awards	College of San Mateo - Bayview Dining Room	5:30pm - 9:00pm
6-Apr	Acterra Party for the Planet	San Mateo County History Museum 2200 Broadway, Redwood City, CA 94063	6:00pm - 10:00pm
10-Apr	Google Environment Day	Google Athletic Field Park 2400 Amphitheatre Pkwy, Mountain View, CA 94043	10:00am - 3:00pm
10-Apr	El Concilio Workshop	Half Moon Bay	4:45pm - 7:00pm
13-Apr	Marine Science Institute's Earth Day	500 Discovery Parkway Redwood City, CA 94063	9:00am - 1:00pm
13-Apr	Belmont Earth Day	Twin Pines Park 1 Twin Pines Lane Belmont, CA 94002	9:00am - 12:00pm
18-Apr	Business 2 Business Extravaganza & Taste of our Cities	Daly City City Hall 333 90th St Daly City, CA 94015	4:30pm - 8:30pm
18-Apr	Genomic Health Earth Day	Buzz Conference Room 101 Galveston Dr Redwood City, CA 94063	3:30pm - 5:00pm
19-Apr	Gilead Ride and Drive	333 Lakeside Dr Foster City, CA 94404	TBD
19-Apr	Half Moon Bay Earth Day Event	Half Moon Bay Library 620 Correas St Half Moon Bay, CA 94019	10:00am - 2:00pm
22-Apr	Facebook Earth Day	Facebook Headquarters 1 Hacker Way Menlo Park, CA 94025	11:00am - 2:00pm
25-Apr	SSF Higher Education Luncheon - Scholarship	Elks Lodge 920 Stonegate Dr South San Francisco, CA 94080	11:30am - 1:30pm
25-Apr	Oracle Green Fair	Redwood Shores Campus 100 Oracle Pkwy Redwood City, CA 94065	11:00am - 1:30pm

27-Apr	STEAM Fest	San Mateo County History Museum 2200 Broadway Redwood City, CA 94063	11:00am - 3:00pm
27-Apr	Earth Day @ Shoreway	Shoreway Environmental Center 333 Shoreway Rd San Carlos, CA 94070	10:00am - 2:00pm
27-Apr	Pacifica EcoFest	Pacifica State Beach 5000 Pacific Coast Hwy Pacifica, CA 94044	11:00am - 2:30pm
27-Apr	YMCA Healthy Kids Day	YMCA San Mateo 1877 S Grant St San Mateo, CA 94402	12:00PM - 3:00 PM
27-Apr	Earth Day Celebration SSF Scavenger	South San Francisco Scavenger 500 E Jamie Ct South San Francisco, CA 94080	10:00am - 2:00pm
27-Apr	Rebuilding Together Annual Picnic	Marine View Park 595 Oracle Pkwy, Redwood City, CA 94065	3:30pm - 8:00pm
4-May	Daly City Earth Day	City Hall Parking Lot 333 90th St Daly City, CA 94015	9:00am - 1:00pm
5-May	Streets Alive in Burlingame	Park Road (between Burlingame Ave & Howard Av) Burlingame, CA 94010	9:00am - 1:00pm
9-May	Bike to Work Day 2019	PCE energizer station at South San Francisco BART station	7:00 am- 10:00 am
15-May	DriveForward Electric Launch Speaker Series	TBD	TBD
15-May	East Palo Alto Senior Lifestyle Expo	Lewis & Joan Platt YMCA 550 Bell St East Palo Alto, CA 94303	9:00am – 1:00pm
16-May	Access to Higher Education Scholarship Awards	Daly City City Hall 333 90th St Daly City, CA 94015	6 pm - 9 pm
23-May	Daly City Active Adults / Senior Fitness & Resource Fair	Pacelli Event Center 145 Lake Merced Blvd Daly City, CA 94015	9:00 am - 12:00pm
2-Jun	San Bruno Community Day in the Park	San Bruno City Park 251 City Park Way San Bruno, CA 94066	12:00pm - 5:00pm
14-Jun	Oracle Energy and Sustainability Summit	Oracle Conference Center 350 Oracle Pkwy Redwood City, CA 94065	All Day
15-Jun	Hillsborough Earth Day	TBD	TBD
29-Jun	Coyote Point Kite Festival	Coyote Point Rec Center 1701 Coyote Point Dr San Mateo, CA 94401	11:30am - 4:30pm
17-Aug	Facebook Ride and Drive	Facebook 1 Hacker Way Menlo Park, CA 94025	TBD

Media Coverage

PCE has been recently covered in the following media stories:

- “County-wide Greenbuilding Efforts & New Guide Available For Zero Carbon Commercial Construction”, InMenlo, March 2019
- “City Adds Electric Vehicle Charging Stations.” Half Moon Bay Review, March 2019
- “Busting The Myth That CCAs Don’t Sign Long-Term Renewable Energy Contracts”, Greentech Media, February 2019
- “January Construction Starts Rise 2 Percent”, Dodge Data & Analytics, February 2019
- “As PG&E Goes Up In Flames, Renewable Energy Steps In”, Clean Technica, February 2019

Enrollment Statistics to Date

Opt-out rates have remained fairly low this winter, ranging from 24 to 6 per week. We saw a sharp decrease in opt-outs from the previous year: in February 2018 there were 235 opt-outs, and there were only 69 opt-outs in February 2019. Seven cities maintained their participation rate in February with zero opt-outs: Atherton, Belmont, Burlingame, Brisbane, Colma, Hillsborough, and Woodside. Our overall participation rate is 97.50% of eligible accounts.



Opt-Outs by City

CITY	Eligible Accts	Total	TOTAL OPT OUT %
PORTOLA VALLEY INC	1,675	109	6.51%
SAN BRUNO INC	16,502	629	3.81%
PACIFICA INC	15,439	542	3.51%
SO SAN FRANCISCO INC	25,211	877	3.48%
EAST PALO ALTO INC	7,905	252	3.19%
DALY CITY INC	33,932	1080	3.18%
MILLBRAE INC	9,347	269	2.88%
HALF MOON BAY INC	4,958	141	2.84%
UNINC SAN MATEO CO	24,481	685	2.80%
SAN MATEO INC	44,052	1113	2.53%
SAN CARLOS INC	14,570	354	2.43%
BELMONT INC	11,917	286	2.40%
HILLSBOROUGH INC	4,047	87	2.15%
BURLINGAME INC	15,382	325	2.11%
REDWOOD CITY INC	34,947	738	2.11%
BRISBANE INC	2,486	50	2.01%
FOSTER CITY INC	14,745	294	1.99%
WOODSIDE INC	2,287	41	1.79%
COLMA INC	694		1.59%
ATHERTON INC	2,699	42	1.56%
MENLO PARK INC	15,713	226	1.44%
Grand Total	302,989	8,151	2.69%
Adjusted Total	302,989	7,586	2.50%

There are now over 5,500 accounts in ECO100. In addition to the County, there are a total of 15 ECO100 cities. The ECO100 towns and cities as of March 18, 2019 include Atherton, Belmont, Brisbane, Burlingame, Colma, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Portola Valley, Redwood City, San Carlos, San Mateo, Woodside, and the County of San Mateo.

The opt-up rates below include municipal accounts, which may noticeably increase the rate in smaller jurisdictions.

Active Accounts by City and Opt-Up Rate

City	ECO100	Active Accounts	Opt-Up %
Atherton	55	2,608	2.11%
Belmont	157	11,525	1.36%
Brisbane	83	2,417	3.43%
Burlingame	323	15,023	2.15%
Colma	28	674	4.15%

Daly City	70	32,769	0.21%
East Palo Alto	18	7,606	0.24%
Foster City	277	14,306	1.94%
Half Moon Bay	90	4,792	1.88%
Hillsborough	62	3,924	1.58%
Menlo Park	438	15,390	2.85%
Millbrae	94	9,082	1.04%
Pacifica	138	14,867	0.93%
Portola Valley	1,466	1,572	93.26%
Redwood City	648	33,840	1.91%
San Bruno	86	15,749	0.55%
San Carlos	263	14,097	1.87%
San Mateo	604	42,758	1.41%
So San Francisco	82	24,097	0.34%
Uninc San Mateo Co	478	23,706	2.02%
Woodside	51	2,229	2.29%
Agriculture	0	242	0.00%
Grand Total	5,511	293,273	1.88%



**PENINSULA CLEAN ENERGY AUTHORITY
Board Correspondence**

DATE: March 19, 2019
BOARD MEETING DATE: March 28, 2019
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority (PCE) Board of Directors

FROM: Joseph Wiedman, Director of Regulatory and Legislative Affairs
Jeremy Waen, Manager of Regulatory Affairs
Doug Karpa, Senior Regulatory Analyst

SUBJECT: Update on PCE's February and March Regulatory and Legislative Activities

SUMMARY:

The end of February and early March continued to be a busy time for the regulatory and legislative team. As discussed in more detail below, PCE, as part of CalCCA (California Community Choice Association), a coalition of CCAs (Community Choice Aggregators) or on its own behalf, submitted ten pleadings at the California Public Utilities Commission (CPUC or Commission) or before other regulatory bodies in the state. PCE's regulatory and legislative team attended two other stakeholder meetings, detailed under Regulatory Outreach and Legislative Advocacy.

DEEPER DIVE:

Regulatory Advocacy and Outreach

CEC Docket 16-OIR-05 – AB 1110 Implementation – A workshop was held on Wednesday, March 6, 2019, to discuss the California Energy Commission (CEC) staff's latest proposals for implementation of AB 1110. There are four current topics in play: (1) treatment of PCC2 resources; (2) attribution of emissions from CAM'ed resources; (3) propriety of using the clean net short methodology proposed by PG&E; and (4) wordsmithing other aspects of the regulations to increase clarity. On Wednesday, March 20, 2019, CalCCA filed comments addressing the legal and policy concerns we have with each of these proposals.

Draft Resolution E-4990 (no docket) – On Monday, February 11, 2019, the PUC released Draft Resolution E-4990 on the Commission's own motion. In the draft resolution, the Commission proposes requiring each investor-owned utility to establish separate bank accounts to avoid co-mingling of funds collected on behalf of CCAs, ESPs, and Core Transport Agents with funds

collected for PG&E services. The resolution is thin on justification noting prudent management and the desire to ensure continued and timely payment to third parties. On Monday, March 4, 2019, CalCCA filed comments on Resolution E-4990 which generally told the PUC that separate bank accounts were not necessary to support prudent management of funds owed to CCAs. Due to statements made by PG&E to the Commission and before the Federal Bankruptcy court in various pleadings, the CCAs believe their funds are secure from being used to meet other claims. Moreover, separate bank accounts for all third-party providers of services that are collected on PG&E's bill would be administratively burdensome. Instead of separate bank accounts, the CCAs supported the PUC clarifying that funds collected by PG&E on behalf of CCAs is not the legal, equitable or beneficial property of PG&E and may not be used to satisfy any other utility obligations but, rather, those funds exclusively remain the legal, equitable and beneficial property of the CCAs even when funds are commingled. The CCAs also requested that the Commission find that rejection of a CCA's service agreement in a bankruptcy proceeding would serve no legitimate business purpose and would be detrimental to CCAs.

I.15-08-019 – PGE Safety Culture OII – On December 21, 2018, the Assigned Commissioner issued a Scoping Memo asking for party comment on a broad range of questions related to ongoing safety issues with PG&E's gas and electric service. The questions are broad-ranging in regard to whether PG&E has a culture that promotes safety, covering corporate governance, corporate management, corporate structure, return on equity, and the business model PG&E operates under (i.e. as an investor-owned utility). In order to participate fully in the docket, PCE filed a Motion for Party Status on January 18, 2019. On Wednesday, February 13, 2019, PCE, as part of a coalition of CCAs, filed comments in the docket addressing the issue of whether PG&E should stop providing retail electric service and should only provide transmission and distribution service. The coalition supported the idea of PG&E exiting retail electric service in order to more squarely focus its attention and resources on safety of the transmission and distribution system. Instead of PG&E providing retail electric service, the coalition argued that the Commission and other state actors should support the provision of retail electric service via local public agencies – either through existing CCAs, newly formed CCAs, or municipalization. If an area of PG&E's current service territory does not want to be served by a local public power agency, a state-level public power agency could provide retail electric service in those areas. Because such a change in PG&E's services would require legislative action, the coalition also provided advice to the Commission on actions it could take to reform its policies to more fully support the formation of CCAs. On Thursday, February 28, 2019, the Joint CCAs filed reply comments. The comments noted the broad support for the expansion of public power options as a means of increasing safety at PG&E. The CCAs argued that the idea of separating PG&E's natural gas and electric businesses as a way to increase PG&E's focus on safety at each type of service warrants further consideration. The comments supported the idea of PG&E's distribution system being managed as an open and transparent platform to support the deployment of distributed energy resources, storage and other applications. This would include providing real-time access to usage metering and billing data. The Joint CCAs also argued that in order to effectuate PG&E becoming a wires-only company would require the PUC to manage the divestment of PG&E's current energy portfolio of utility-owned generation and third-party contracts to the extent practicable. The Joint CCA's proposal supporting the growth of public power via CCAs and municipalization was covered extensively in the press. A large coalition of parties supported the concept in their own opening comments or in reply to the Joint CCAs' comments.

R.17-09-020 – Resource Adequacy (RA) – The CPUC's RA proceeding continues on two tracks - Track 2 (Local RA reform) and Track 3 (2020 RA requirements and other proposals). In Track

2, the Commission reached a Decision on Thursday, February 21, 2019 that adopts a multi-year Local RA requirement for 2019, but the Decision punts the implementation of a Central Buyer for Local RA to a second Track 2 Decision that the CPUC intends to reach by Q4 of 2019. The Decision directs for at least three workshops to be convened between now and October to further deliberate over a Central Buyer construct to inform that Q4 Decision. CalCCA is preparing its strategy and outreach for its continued engagement within this case. Track 3 of the RA case is intended to adopt RA requirements for year 2020 and consider additional outstanding proposals raised by parties within this proceeding. CalCCA prepared and submitted a proposal on March 4th advancing two primary concepts: 1) Reform to how load forecasts, which inform RA requirements, are done by the CEC and how year-ahead local requirements are sensitive to individual LSE load profiles, and 2) Requesting the CPUC create a short-term RA sales framework for the IOUs to guide how they are able to sell their excess RA. On Tuesday, March 12, 2019 and Wednesday, March 13, 2019, the CPUC convened workshops to consider parties' Track 3 proposals. The workshops covered numerous topics including several parties' proposals for improved load forecasts for each LSE. The Commission staff did not entertain CalCCA's request to explore creating a short-term RA sales framework for the IOUs. Parties are directed to file comments on March 25th in response to parties' proposals and matters discussed at the workshops. CalCCA is preparing its response.

R. 18-07-003 – RPS OIR – On Monday, February 11, 2019, PCE along with a group of CCAs filed comments on a proposed decision issued Tuesday, January 22, 2019. The proposed decision generally accepted the CCAs' RPS plans as compliant with state law. On Monday, February 11, 2019, PCE along with a number of other CCAs filed focused comments in the docket that supported the proposed determination that CCAs RPS Plans were compliant with state requirements. The CCAs also requested that discussion in the proposed decision regarding the information submitted by CCAs be amended to recognize that the CCAs provided much more granular information than the decision recognizes and also that the decision recognize that the framework of the PUC's oversight of CCA's RPS procurement was different than that of the investor-owned utilities (IOUs) so there was a need to streamline reporting requirements to lower administrative burden. On Tuesday, February 19, 2019, the joint CCAs filed reply comments in the docket concerning the proposed decision. The reply comments pushed back on IOU claims that the CCA RPS Plans were deficient because they lacked certain information required of the IOUs. The Commission approved the proposed decision at the Commission's February 21, 2019 voting meeting.¹ The CCAs again explained that the Commission's oversight of CCAs' RPS Plans was different than that of the IOUs' Plans and so certain information was not necessary. The CCAs' reply comments pushed back on comments by representatives of developers that the CCA plans did not lay out their future procurement plans with sufficient data concerning long-term procurement plans. On Thursday, February 28, 2019, PCE, as part of a group of CCAs, filed comments in the docket related to implementation of SB 100. The comments supported continued use of the "Straight-line Trend Methodology" for determining the amount of renewable energy that needs to be procured to meet renewable energy content requirements. The comments also supported continuing to use the current methodologies for calculating compliance with the final period's renewable energy content requirements in subsequent years. That methodology is an average of the prior three years reported renewable energy content. On Monday, March 11, 2019, the Joint CCAs filed comments pushing back on the claims of the Independent Energy Producers Association's (IEP) claims that CCAs were not procuring sufficient renewable energy resources under long-term

¹ Decision 19-02-007 is available at:
<http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&DocID=269933879>

contracts to meet state requirements. The CCAs pointed out that IEP's comments were procedurally improper because the Integrated Resource Plan docket was the appropriate forum for compliance and that the data and assumptions used by IEP were inaccurate.

R.18-10-007 – PG&E Wildfire Mitigation Plan – On Wednesday, March 13, 2019, PCE and Sunrun filed joint comments addressing PG&E's wildfire mitigation plan (WMP). The WMP was required by SB 901 which was passed by the Legislature in 2018. The WMP covers a broad range of current and proposed activities by PG&E to increase safety and reliability of transmission and distribution services. PCE and Sunrun focused on efforts by PG&E to increase resiliency in communities that experience a de-energization event as a means to avoid wildfires. PCE and Sunrun expressed a desire to utilize their unique expertise in partnership with PG&E as PG&E explores avenues for providing energy services during de-energization events such as utilizing solar plus storage at critical facilities and development of microgrids. PCE and Sunrun ask the Commission to require PG&E to collaborate with a broad range of stakeholders including CCAs and customer-sited energy services providers.

R.18-12-006 – Transportation Electrification Framework – In December of 2018 the CPUC kicked off a new rulemaking to consider a Transportation Electrification Framework (TEF). PCE along with several other CCAs (MCE, SCP, CalChoice, and SVCE) have engaged jointly in this case to advance funding and marketing opportunities for CCAs within this framework. As a first step, the CPUC sought comments from parties on the potential scope of this proceeding. In accordance, the Joint CCAs submitted comments on February 11, 2019, and reply comments on February 26, 2019. The CPUC then convened a Pre-hearing Conference on March 1, 2019, which was attended by the assigned administrative law judges (ALJs) and Commissioner Rechtschaffen. Numerous parties participated and requested to expand the scope of this proceeding to consider additional matters that may relate to the proposed TEF, such as resilience planning as it relates to electrified transit fleets. CCA-related matters were acknowledged by the assigned ALJs as within scope; however, it remains unclear as to whether the CCAs' request for access to distribution funding to advance EV programs will be considered. Presently a Scoping Ruling is pending in this case.

R.19-01-011 – Building Decarbonization – On Monday, March 11, 2019, PCE joined four other CCAs in submitting comments to the PUC on the Building Decarbonization OIR. The comments expressed general support for the docket, called for a third party administrator of the \$50 million of decarbonization funds for all energy customers, offered several recommendations for streamlining program implementation for home owners, and requested close alignment with Title 20 and 24 codes. This proceeding will also be a forum to advocate for decarbonization to incorporate smart-grid ready appliances that can interface with Distribution Energy Resource Management Systems (DERMS) or other similar technologies..

Legislative Advocacy and Outreach

The deadline for introducing legislation for consideration this session was Friday, February 22, 2019. PCE's legislative team anticipates we will have greater clarity over the issues that will be in play after that date. Now that legislation has been introduced, stakeholders are turning to further refinement of concepts contained in bills, coalition building, and engaging with legislative offices regarding concerns.

CalCCA's lobbying team and PCE's legislative team has identified approximately 42 bills which have some level of impact on energy issues that are worth reviewing. PCE team has been assisting CalCCA with review of bills while also doing our own independent review of legislation.

While review of legislation is ongoing and a dynamic process, PCE team has identified the following bills as ones of interest to PCE:

SB 350 (Hertzberg)² – central buyer related bill which is still under active discussion on basic framework and coverage.

AB 56 (Garcia)³ – would establish the California Clean Energy Agency to engage in procurement of certain clean energy resources.

AB 1144 (Friedman)⁴ – would require the use of current funding allocated for behind the meter energy storage to be utilized for a small number of pilot projects utilizing community storage within wildfire areas.

SB 520 (Hertzberg)⁵ – would establish criteria for an entity to act as “Provider of Last Resort” (POLR) within the state.

SB 676 (Bradford)⁶ – would promote adoption of vehicle to grid technologies, currently in spot bill form.

AB 235 (Mayes)⁷ – would establish a catastrophic wildfire fund to help insure investor-owned and publicly-owned utilities in the event of a major wildfire.

SB 199 (Hill)⁸ – would extend the term of the Office of Safety Advocates at the CPUC until 2025.

SB 548 (Hill)⁹ – would extend state jurisdiction regarding inspection of transmission lines.

SB 549 (Hill)¹⁰ – would require legislative approval of any changes to PG&E's capital structure as a result of bankruptcy.

SB 550 (Hill)¹¹ – would condition approval of the transfer of control of any investor-owned utility based on specific findings related to safety.

Joseph Wiedman attended an informational hearing in Sacramento before the Assembly Utilities and Energy Committee on the evolution of California's energy markets on Wednesday, March 6, 2019. At the meeting, Mr. Wiedman advocated for greater cooperation between state agencies, the production of data to assess the topics being discussed regarding restructuring, and also noted that PCE has a strong commitment to labor and creation of good quality jobs. To support

² Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB350

³ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB56

⁴ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1144

⁵ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB520

⁶ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB676

⁷ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB235

⁸ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB199

⁹ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB548

¹⁰ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB549

¹¹ Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB550

those efforts, PCE has a strong sustainable workforce policy which was just expanded by the Board in December.

Upcoming Legislative Activities

PCE has scheduled an Ad Hoc Legislative Meeting for Board members on Thursday, March 28, 2019. This meeting is an opportunity to take a deeper dive on issues in Sacramento.

CalCCA has scheduled a Lobby Day for Wednesday, April 3, 2019, in Sacramento.

FISCAL IMPACT:

Not applicable.



**PENINSULA CLEAN ENERGY
JPA Board Correspondence**

DATE: Mar. 19, 2018
BOARD MEETING DATE: Mar. 28, 2018
SPECIAL NOTICE/HEARING: None
VOTE REQUIRED: None

TO: Honorable Peninsula Clean Energy Authority Board of Directors
FROM: Jan Pepper, Chief Executive Officer, Peninsula Clean Energy
Rafael Reyes, Director of Energy Programs
SUBJECT: Local Programs Report

SUMMARY

The following programs are in progress, and detailed information is provided below:

- Building Reach Codes
- EV Ride and Drives
- Low-Income EV Incentive Program (DriveForward Electric)
- Apartments EV Technical Assistance
- Community Pilots

The following programs are in transition:

- Curbside & Multi-Unit Dwelling (MUD) Pilot. This will be a pilot program to foster new low-power technology solutions and pilot them in MUDs; and develop policies and pilot curbside charging. The RFP for the MUD portion of the project, named the Low-Power EV Charging Pilot, received eight proposals. A request for Board approval to proceed with the contract is on this month's agenda.
- The EV Infrastructure Incentive program approved in December 2018 is under development with a target for launch in summer 2019. This program was funded at \$16 million over four years to provide incentives and technical assistance for the deployment of 3,500 EV charging stations. Development includes defining the qualifications and incentives, establishing the associated technical assistance and workforce programs, hiring support staff, and acquiring a software system for program tracking.

- The 2018 New Vehicle Dealer Promotion, which provided PCE incentives and additional, competitively solicited dealer incentives for the purchase or lease of new electric vehicles has ended. 120 vehicles were sold, and staff intends to bring a proposal to the Board at an upcoming meeting to continue the program in 2019.

DETAIL

Building Reach Codes

This initiative will produce model reach codes for cities to consider for adoption. The codes are intended to build on the State's 2019 building codes to advance electric vehicle use and all-electric buildings. This is a joint project with Silicon Valley Clean Energy (SVCE). Consultants have been engaged to develop model codes and provide technical assistance to local governments. \$10,000 will be provided to participating local governments.

Initial outreach has begun to solicit input on the prospective model codes. Charrettes for building officials, developers, and community stakeholders were held on March 19, 2019, in San Mateo County and March 20, 2019, in SVCE territory. Another meeting is scheduled for March 27, 2019, in San Mateo County. A website was launched to provide details to local governments (www.peninsulareachcodes.org).

EV Ride & Drive

This program is one of PCE's two core elements for EV marketing (the other is the Dealer Promotion Program), and it provides for community and corporate events in which community members can try a range of EVs in a non-sales environment. The program is based on research strongly indicating that direct experience with EVs is a major factor affecting whether drivers purchase an EV vehicle.

In 2018, five events were held and reached over 1,000 participants. The program includes six month trailing surveys to gauge impact. The first survey results of the August 2018 events (events held at Genentech and Facebook, and 78 respondents out of 206 participants) indicate very strong impact from the events:

- **17% have acquired an EV since the event** (bought or leased)
- 86% indicated the test drive positively impacted their decision
- 49% visited a dealership
- 91% looked online for information on EVs
- 95% have spoken to family or associates about EVs
- 35% "definitely" plan on acquiring an EV in the next 2 years, 52% "likely"

In February 2019, the Board approved ramping up the program with a 3-year program intended to yield 10 to 25 events per year and significantly increase social media visibility. Initial events have been scheduled with Gilead in Foster City on April 19 and STEAM Fest in Redwood City on April 27.

Low-Income EV Incentive Program (DriveForward Electric)

The program will provide a \$4,000 incentive for the purchase of used plug-in hybrid electric vehicles to low- and moderate-income San Mateo County residents with access to a standard outlet at home or work. PCE will offer this incentive through Peninsula Family Service's DriveForward program, which is a robust program that provides financial coaching and access to financing to help participants purchase reliable used vehicles. PCE's contract with Peninsula Family Service (PFS) has been executed following Board approval at the January 2019 meeting.

The program had a soft launch with a workshop on March 2, 2019, targeting PCE customers on the California Alternate Rates for Energy Program (CARE) utility discounted rate schedule program. Approximately 40 attendees participated to learn about the program and financial empowerment services. Two plug-in hybrids were brought to the event and nearly a dozen participants inspected the vehicles and got questions answered. 1-on-1 client meetings are in progress with PFS. A formal launch event is being developed prospectively for mid-May. PCE has a program web page available at <https://www.peninsulacleanenergy.com/driveforwardelectric/> .

Apartments EV Technical Assistance

This EV infrastructure technical assistance program for apartments is a short term program for 2018 and early 2019 aimed at assisting owners and facilities managers to install EV charging utilizing currently available technology (as compared to the Low-Power EV Charging Pilot which is aimed at potentially developing or facilitating new solutions). The program has included professional guidance on approaches, electrical assessments, and apartment policy development. A modest extension of the program was put in place as a stop-gap in the interim as the broader EV Infrastructure Incentive program is developed which will include a robust technical assistance program.

The current technical assistance program has been focused on identifying major property owners, securing contact information and consulting with Equity Residential (Equity), one of the region's largest apartment owners. Equity is planning a significant deployment of EV infrastructure and is in the scoping phase. PCE staff and PCE's consultant EV Charging Pros have held in person meetings and calls with Equity to inform their decision-making, including participating in the PG&E EV Charge Network program and the additional support PCE will be offering soon through its program.

Community Pilots

PCE awarded grants of up to \$75,000 each for six innovative local pilot projects to reduce greenhouse gas emissions, support low-income customers, and advance electric transportation. Below is the status of each pilot project:

Pilot	Status
Refrigerator Recycling – ARCA Old refrigerator recycling program to capture high impact GHG sources.	Contract executed. Marketing materials under development. Launch targeted for April. Program will have limited outreach due to limited total capacity.

<p>Peninsula Climate Comfort – Ardenna</p> <p>Pilot for electrification retrofits for 5 homes for in-depth technical and financial assessment as development of financing strategy.</p>	<p>Contract executed. Initial outreach has begun to assess prospective participants. Website: www.climate-comfort.com</p>
<p>Healthy Home Connect – Build It Green</p> <p>Upgrade 10-16 low-income homes that would otherwise be disqualified from housing assistance programs using PCE gap funding.</p>	<p>Contract executed. Initial outreach has begun to assess prospective participants.</p>
<p>Community Resiliency at Faith Institutions – Interfaith Power & Light</p> <p>Recruit and develop plans to equip select number of faith institutions to be community hubs with clean energy back up power.</p>	<p>Contract executed. Initial outreach has begun to assess prospective participants.</p>
<p>Low to Moderate Income Community Car Sharing</p> <p>Deploy a select number of battery electric vehicles (EVs) to be used for car sharing within a low to moderate income community apartment complex</p>	<p>Contract under development.</p>
<p>A Roadmap for Municipal Green Fleets – County Office of Sustainability</p> <p>Develop a clean fuel fleet toolkit for local governments, acquire pilot vehicles and scooters, and provide technical assistance to jurisdictions interested in electrifying their fleets.</p>	<p>Contract executed. Input from local governments on toolkit needs has begun.</p>