

# C/CAG

## CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

### Agenda

#### Resource Management and Climate Protection Committee (RMCP)

**Date:** Wednesday, August 16, 2017

**Time:** 2:00 p.m. to 4:00 p.m.

**Location:** 555 County Center – 5<sup>th</sup> Floor, Conference Room 1  
Redwood City, CA

1. Introductions
2. Public Comment
3. Approval of Minutes from February 15, March 15, 2017, and June 28, 2017 meetings  
(Kim Springer – Committee Staff)                      Action
4. Presentation and update on San Mateo County Energy Watch program and new initiatives  
(Kim Springer, County staff)                      Presentation, Discussion
5. Presentation on integration of battery storage and intelligent controls for resilience and energy-  
rate protection                      (Ted Ko – Stem)                      Presentation, Discussion
6. Bay Area Water Supply and Conservation Agency update on current water supply and  
conservation                      (Andrienne Carr, BAWSCA)                      Presentation, Discussion
7. Presentation about August 21, 2017 solar eclipse effect on California’s solar power resources  
(Kim Springer, County staff)                      Presentation, Discussion
8. Committee Member Updates
9. Next Regular Meeting Date: September 20, 2017

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### Resource Management and Climate Protection Committee (RMCP) Minutes of February 15, 2017 Meeting

#### **In Attendance:**

Dave Pine, County Supervisor\*  
Bill Chiang, PG&E\*  
Ortensia Lopez, El Concilio of San Mateo County\*  
Rick DeGolia, Town of Atherton\*  
Adrienne Carr, BAWSCA\*  
Beth Bhatnagar, SSMC Board Member\*  
Deborah Gordon, Committee Chair, Woodside Town Council\*  
Pradeep Gupta, South San Francisco City Council\*  
Maryann Moise Derwin, Committee Vice Chair, Mayor Portola Valley\*  
Robert Cormia, Professor Foothill-DeAnza\*  
Diane Papan, Councilmember, San Mateo\*  
Jacki Falconio, County staff  
Michael Barber, Supervisor Pine's Office  
Kim Springer, County Office of Sustainability  
Sandy Wong, C/CAG Executive Director

#### **Not in attendance:**

Don Horsley, County Supervisor\*

\* Committee Member (voting)

1. Introductions
2. Public Comment
3. Approval of Minutes from November 16, 2016 Meeting (Derwin/DeGolia)  
(Kim Springer – Committee Staff) Action

Minutes passed with edit requested by committee member Carr.

4. Bay Area Water Supply and Conservation Agency update on current water supply and conservation (Adrienne Carr, BAWSCA) Presentation, Discussion

Committee member Carr delivered a presentation on the rainfall and snowpack today in relation to

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San Mateo County Transit District Office, 1250 San Carlos Ave., San Carlos, CA.

the supply to the Hetch Hetchy system. Snow pack and rainfall are at historic record levels and very early in the season. Carr will find out what the actual measurement is for the snow pack conditions: water content or other indicator. Rainfall is also above average for the Bay Area.

New graph shows water available to San Francisco, over a million acre feet of water, enough to fill our entire water system. Entire system is 93% full. Water demand is almost the same as last year, with 2013 as the basis for comparison as the last no-drought year. It is likely the system will be spilling excess water down the Tuolumne River. Locally, all our reservoirs were filled in December, so they are spilling as well.

Repairs are underway at the Mountain Tunnel of the Hetch Hetchy system. Cracks were located several years ago, and it was decided that the tunnel should be re-inspected and repaired if needed. Failure was due to concrete that was originally installed in the early 1900's by hand, delivered to the tunnel walls between access points (9 miles apart). We have been using water from our local water supply system for about 30-60 days. Tunnel will re-open on or around March 4<sup>th</sup>. There may be another shut down of the tunnel in summer for three months if there are further repairs needed.

DeGolia: Do we put water into Don Pedro and then pull from there?

Carr: We cannot pull from Don Pedro, it's just a storage reservoir.

Gupta: Given we have had this exceptional year for water supply and rainfall, what do the water experts say. Do we need additional water storage?

Carr: There is no current plan to build more storage, but there may be more conjunctive use of groundwater.

Derwin: Isn't it a good practice to use spilled water to replenish groundwater?

Carr: It could be a good way to use spilled water, but much of it would be dependent on farmers and crops and damage to those crops.

Barber: I've heard that there is the potential that we can't get groundwater volumes back after a drought.

Carr: Yes, it's very common that subsidence can't be completely reversed. Most of that storage is gone. Fresno has installed infiltration ponds and other areas are going to infiltrate.

Springer: Is there anything in the data for rainfall that shows more extreme weather patterns?

Carr: There isn't enough statistical knowledge to answer that question. Storage is helpful under those potential future circumstances.

##### 5. Update on San Mateo County Energy Watch goals and projects

(Jacki Falconio, County staff)

Presentation, Discussion

Jacki Falconio presented on the 2016 San Mateo County Energy Watch outcomes: See presentation posted on the C/CAG RMCP website for details of energy savings and additional outcomes for the program, and planned for 2017. The program met its goals but some of the savings did not get reported until this month of February.

Springer: 2016 was a good year, as the first year of a three-year program cycle, it's usually difficult to get the program off the ground and see the savings goals met. Allowable projects can change beginning and even mid program cycle and can affect saving.

Gupta: The total county energy savings are a sum of the total months or for each?

Falconio: They are cumulative.

Barber: Do we have a date set yet to look have ZNE speakers attend a meeting?

Pine: For County facilities?

Falconio: That meeting has been pushed back, but we are planning to have speakers come in. We have them identified. We plan to bring the capital projects team to the meeting.

Barber: Could we create a bigger audience?

Falconio: I don't see why not.

Pappan: IS there some sort of template for lease language?

Falconio: That is part of what we will be creating.

Gupta: Has any calculation been done on the cost for energy efficiency?

Springer: Yes, we do calculate that. The cost includes staff time, incentives, and engineering time, for our programs, simply divided by kWh. That is trending downward to about 27 cents per kWh.

Gupta: My point is that even at that level is that at this time, since we are trending at about six cents per kWh, we should keep an eye on the cost to society for the work we do.

Springer: This is definitely where the two programs meet.

DeGolia: What about the library kits?

Springer: We can provide a separate presentation on this project, which is under the San Mateo County Energy Watch.

6. Presentation on greenhouse gas emissions energy data challenges

(Kim Springer – County Staff)

Presentation, Discussion

Kim Springer presented on the current issues with getting energy data, especially natural gas, for our program's completion of GHG emission inventories for every city and town, and the County, in San Mateo County. The CPUC has rules that limit access to this data, new rules, which started in 2014 and affect getting data for 2014 and 2015 so far. The rules limit availability based on the percentage of the largest users' use of the resource. Every city has been, in some way affected, except for City of San Mateo. See C/CAG RMCP website for packet and presentation.

Cormia: Are you still able to get an aggregated number for all the natural gas meters?

Springer: No, if the rule is broken, we can't get the data for that sector.

Bahtnagar: How did the privacy rule get put into place?

Springer: I'm guessing that the new rule was never tested against the needs of local government for completing emission inventories.

Chiang: It's likely to have something to do with privacy of large users, not allowing data to be disaggregated down to where one business could tell what another is doing. It's kind of like why the County doesn't reveal how much sales tax is coming from one dealership.

7. Review of San Mateo County Energy Strategy 2012 document

(Kim Springer – County Staff)

Presentation Discussion

Kim Springer presented on the history of the San Mateo County Energy Strategy 2012 document

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and how the committee might want to consider that it be updated. With the advent of PCE and ZNE and the PAEC Epic grant, microgrids, water and energy reliability, that it might make sense to update the document.

Carr: Did the document come out in 2012?

Springer: No, it was completed in 2008 and adopted by every city by the end of 2009. We have a contractor consultant that helped keep the original project on track.

Gupta: I would support a review and update, and there are other pressures such as housing and transportation interface. I think the environment has changed considerably.

Cormia: It certainly makes sense to do a refresh, especially since the group and environment have changed so much, so that some years down the road, a new group can review the perspective once again.

Pine: Considering all the change in climate action?

Springer: We definitely tried not to push climate change hard in the document in 2008, because we wanted to see it adopted by every city, but by the time 2009 rolled around some cities were critical that we hadn't gone far enough.

Pappan: So would the idea be that we would update the document and again have all the cities adopt the strategy?

Springer: Yes, I would think so.

Derwin: Do you see this process coming from this committee, or how do we decide?

Springer: I think we go through the document and see what's included and missing. I have also heard here about transportation and housing, and Ortensia, our newest committee member has the perspective of equity, being the ED of EL Concilio.

Pine: How would the document be used? Would it be a strategy document?

Cormia: This was a guiding document for the cities. At the time the cities had never even thought of this.

Pine: So we've kind of exceeded the vision in this document so we need a new vision?

Springer: Yes, I think we've moved along further and the playing field has changed.

DeGolia: Now all the cities have climate action plans, and I think there is value to the County providing leadership. PCE is taking leadership very seriously. If this document could give that kind of thought leadership, it would be really work the effort. The city's CAPs are very specific and different for every city. We need to have some consulting help to review the CAPs.

Springer: We developed the tools and know all of the CAPs in San Mateo County.

Cormia: We could add transportation into the mix of this document, since it's such a large part of the picture and that could help differentiate the document for the future.

Degolia: I didn't want to discourage the idea of updating this document, just that there are so many thought leaders on this topic now, maybe we want it more at that level.

Pine: C/CAG is just working on a CTP, though there is some consideration of putting more metrics

into it.

Springer: The PAEC grant project will be looking at electrification of transportation and other aspects of the future of energy in an “advanced energy community” in San Mateo County, including infrastructure.

Pine: Speaking of PAEC, have they spoken here?

Springer: They could be invited to give an update.

Gupta: The title is Energy Strategy. I think the individual cities should be part of the overall strategy, and in addition, PCE was made feasible by the involvement of all the cities in the effort. There might be some activities for which the individual cities cannot have the capacity to undertake. Reviewing some of these issues maybe a way of exploring the need for an update and what that would look like. I wasn't suggesting we try and resolve transportation and housing, only that related to energy.

Cormia: To Jacki's presentation, a few years ago, ZNE wasn't even a concept. Now ZNE will be a code in 2020.

Falconio: Residential by 2020, Commercial by 2030, and even more important 50% of existing Commercial by 2030. This is a huge lift.

Lopez: It would also be good to look at the CPUC's long term energy strategic plan to see how we align to the state's goals.

#### 8. Committee Member Updates

Bahtnagar: SSMC Indicators Launch (quarterly) and Sustainability Awards on April 6<sup>th</sup>.

DeGolia: Atherton is set to approve the completed plans of the new civic center this evening. Four years in the works.

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### Resource Management and Climate Protection Committee (RMCP)

#### Minutes of March 15, 2017 Meeting

##### **In Attendance:**

Dave Pine, County Supervisor\*  
Tom Francis, BAWSCA  
Beth Bhatnagar, SSMC Board Member\*  
Pradeep Gupta, South San Francisco City Council\*  
Maryann Moise Derwin, Committee Vice Chair, Mayor Portola Valley\*  
Robert Cormia, Professor Foothill-DeAnza\*  
Diane Papan, Councilmember, San Mateo\*  
Michael Barber, Supervisor Pine's Office  
Kim Springer, County Office of Sustainability  
Rachael Londer, County Office of Sustainability  
Johnathan Kelves, Renew Financial  
Brandi de Garneau

##### **Not in attendance:**

Deborah Gordon, Committee Chair, Woodside Town Council\*  
Don Horsley, County Supervisor\*  
Bill Chiang, PG&E\*  
Ortensia Lopez, El Concilio of San Mateo County\*  
Rick DeGolia, Town of Atherton\*

\* Committee Member (voting)

1. Introductions
2. Public Comment

There were no public comments

3. Approval of Minutes from February 15, 2017 meeting  
(Kim Springer – Committee Staff) Action

No action taken due to lack of quorum. February Minutes moved to next meeting.

PUBLIC NOTICING: All notices of C/CAG Board and Committee meetings are posted at:  
San Mateo County Transit District Office, 1250 San Carlos Ave., San Carlos, CA.

4. Bay Area Water Supply and Conservation Agency update on current water supply and conservation (Adrienne Carr, BAWSCA) Presentation, Discussion

Adrienne Carr was not in attendance. The presentation was made by BAWSCA Water Resources Manager, Tom Francis. The presentation is made available online.

Pradeep Gupta: Looking at the historical record of snow pack, commented that there is great variability of the water supply on CA.

Tom Francis: Yes, one could argue that, especially with variable weather from year-to-year, that there is some uncertainty about future drought

Pradeep Gupta: The main point is that we have a discussion about what is our strategy, enough to realize that, right now, there really isn't a strategy. How do we really deal with this situation, given the facts?

The state needed about 375 million acre feet of water this year and we've received over a 1,000,000 million acre feet, so we are in good shape, our reservoirs are full. Calaveras Dam in not full as it is under construction. The water bank is also full, and some dams are being spilled.

Diane Papan: What is the outcomes of the tunnel inspection on Hetch Hetchy.

Tom Francis: The results of the inspections and small repairs is that the tunnels, which are almost 100 years old, are fine.

There is a new program called: "Making Conservation a way of Life". There is a document that is in draft form. Eventually (about five years) this will be a very big program. Part of the program is that the State will look at each community to determine what level of hard scape and landscape, and there will be programs to improve. The water agencies will be asked to develop programs.

Pradeep Gupta: When this program is put in place, will it just be water agencies, or will it include small water users.

Tom Francis: Right now, the governor is targeting residential users for this program. Not sure what they are planning for ag users.

Maryann Derwin: What's the time line for the roll out of the program?

Tom Francis: Probably in 2019. Right now the state has to do a lot of analysis of landscaped and interact with the cities

5. Presentation on PACE financing and utilization in San Mateo County (Jonathan Kevles, Renew Financial) Presentation, Discussion

Jonathan Kelves provided a presentation on the current state of PACE financing in CA and in San Mateo County. The presentation materials are posted online.

Diane Papan: On the does the PACE loan get to supersede a first loan?

Jonathan Kelves: Banks have concerns because PACE assessments are ahead of the first loan. They are ahead of the first loan because they are an assessment and, based on a law from 1911, communities can establish a special assessment districts and because it is paid off via the tax bill, it's just like any other line item on the tax bill. Line item assessments are ahead of the loan in the



case of default. See two page Q&A on this topic, posted online.

Kim Springer: Is it possible to break out the number of water projects from the rest?

Jonathan Kelves: I'll send a revision of this slide deck that shows that.

Tom Francis: I wonder how many utility users are actually aware of the PACE programs?

Jonathan Kelves: You might want to come and present to BAWSCA's water resources group.

Dave Pine: When you look around the Bay Area, what do they look like in terms of number of projects, because 178 isn't a whole lot for such a large county?

Jonathan Kelves: Contra Costa County has been the most active county in the Bay Area, perhaps because there is so much renting of properties in San Mateo County. It may also be that solar lease is more powerful here.

Rachael Londer: It may be that the air conditioning and wall insulation type upgrades are more popular in hotter climates.

6. Presentation on resource conservation library kits  
(Rachael Londer, County Staff) Presentation, Discussion

Rachael Londer gave a presentation on the resource conservation library kits.

The library kits are a spinoff of a similar kit that was developed by Silicon Valley Energy Watch. There is a handbook that describes how to use the tools to evaluate residential energy and water use and exercises for installing the items residents may keep, such as a low flow shower head and LED lightbulb. The handbook will eventually be translated into Spanish and Mandarin.

Bob Cormia: An energy champions club could really leverage this kit.

Dave Pine: How many kits will the libraries have?

Rachael Londer: There will be between two and four kits at each library.

The libraries will replenish the consumables in the kits. If tools are missing, the County's library system will replenish those items. The program will supply the libraries with the kit contents.

7. Presentation on launch of public online data portal for presentation of resource use and greenhouse gas emissions in San Mateo County  
(Kim Springer, County Staff) Presentation Discussion

Kim Springer provided a presentation on the online data portal.

The County has an online open data portal via a software called Socrata with five available dashboards. We received approval to use of the dashboards for posting energy-, water-, waste-, and transportation-related data to provide public information on trends of the GHG emissions and resource use, in some cases by city boundaries in San Mateo County.

One advantage of the data portal is that the data is uploaded and the software allows users to create custom visualizations of the data (graphs and charts). These graphs and charts each have a unique URL that can be linked to other web pages. When the data is updated (a new year of data is added) the URL, and therefore all the linked pages, are updated as well.

Each city has a unique page and city staff have been provided access so that they can update and customize their own pages.

Bob Cormia: It seems easy to navigate and easy to read.

8. Presentation on California Public Utilities Commission and California Energy Commission solar and storage integration in the transition to zero net energy  
(Nellie Tong, consultant DNV GL) Presentation, Discussion

Nellie Tong provided a presentation on DNV GL's modeling of integrated energy generation and storage and how this approach affects the cost-effectiveness of zero net energy. The work was funded by the DOE energy and defense funding. (see presentation posted online)

Pradeep Gupta: It is correct that we have the duck curve, but this issue, which historically has been going on for years, has required chasing the time customers use energy. The best solution is dynamic pricing in order to solve the issue.

Bob Cormia: I developed a project model for one of our campuses setting the parameters we had and letting the model design the battery size itself. We found that the battery will be working 24/7. We had added benefit of demand response and frequency regulation, but the cost was significant. What concerns me the most and is your best point, is that the existing grid is not designed for this kind of use. We are promoting distributed solar but also promoting programs such as CCAs, so the issue is compounding. Electric vehicles can be used to re-route the excess energy from residential generation.

Pradeep Gupta: This kind of approach requires continuous optimization and integration, and PG&E needs to be incentivized to transition their technologies rather than being supported for continuing their older infrastructure. There needs to be an economic incentive change to make this transition happen.

Bob Cormia: We can change the grid completely in 15 years, but it's going to take another 30 years to receive the benefits of the cost of that change.

## 9. Committee Member Updates

Beth Bahtnagar: I have some copies of the SSMC Indicators Report, which has the cost of living as the main indicator this time around.

Kim Springer: The RICAPS and SMCEW program received an Innovative Partnership Award from US EPA. My biggest take away from the conference where we received the award was that corporations and startups are looking for opportunities to fill niches in the green tech space and businesses are looking for solutions that are coming to parity in cost to less green alternatives. It's imbedded, and the current administration isn't going to change that.

Pradeep Gupta: SSF is seriously looking at a water storage project under one of its parks that will store 6 acre feet of water from stormwater of 6,300 square acres of area, and will be cleaned before it goes into storage and could be used for irrigation purposes. This requires coordination with County, C/CAG Caltrans and a lot of permit requirements.

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10. Next Regular Meeting Date was confirmed as April 19, 2017

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# C/CAG AGENDA REPORT

**Date:** August 16, 2017  
**To:** Resource Management and Climate Protection Committee  
**From:** Kim Springer, County Staff  
**Subject:** Presentation and update on San Mateo County Energy Watch program and new initiatives  
(For further information contact Kim Springer at 650-599-1412)

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## **RECOMMENDATION**

Receive a presentation and update on San Mateo County Energy Watch program and new initiatives.

## **FISCAL IMPACT**

SMCEW program staff costs are paid for by funding under the C/CAG – PG&E Local Government Partnership (LGP) agreement. Additional matching funds, specifically for transportation-related Climate Action Planning efforts, come from C/CAG Congestion Relief Funds.

## **BACKGROUND/DISCUSSION**

The SMCEW launched a new program cycle on January 1, 2016. The new program cycle runs through December 2018, however the program tracks progress yearly on a calendar year basis.

The overall annual goals are a combination of the Direct Install efforts of Ecology Action, contracted directly by PG&E for San Mateo County, and various types of calculated savings projects lead by SMCEW staff. All the work of the SMCEW program is a team effort coordinated through semi-monthly meetings and regular communication.

Staff will provide updates on energy savings to date, recent and new initiatives, including: the library kits, and a new micro-business pilot.

## **ATTACHMENT**

None

# C/CAG AGENDA REPORT

**Date:** August 16, 2017  
**To:** Resource Management and Climate Protection Committee  
**From:** Kim Springer, County Staff  
**Subject:** Presentation on integration of battery storage and intelligent controls for resilience and energy-rate protection  
(For further information contact Kim Springer at 650-599-1412)

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## **RECOMMENDATION**

Receive a presentation on integration of battery storage and intelligent controls for resilience and energy-rate protection.

## **FISCAL IMPACT**

None

## **BACKGROUND/DISCUSSION**

As the energy industry transitions to greater use of renewable distributed generation, companies developing the concept of using battery storage to avoid demand charges for electricity, by purchasing energy when it's most affordable for later use when it's most expensive, find this a growing industry.

Integrating the electrical grid supply, locally generated renewables, and battery storage, requires controls and software to automate the process. The outcome is potential savings for customers who install these systems, and better management of grid resources locally and regionally.

Stem, Inc., locally-based in Millbrae, is one such company that has developed software, partnered with battery manufacturers, and installed numerous integrated systems for companies such as JCPenny, Extended Stay America, and Adobe Systems. Ted Ko, Director of Policy for Stem, will present on the Stem product, how it works, and provide examples of installations of their systems.

## **ATTACHMENT**

Stem Brochure

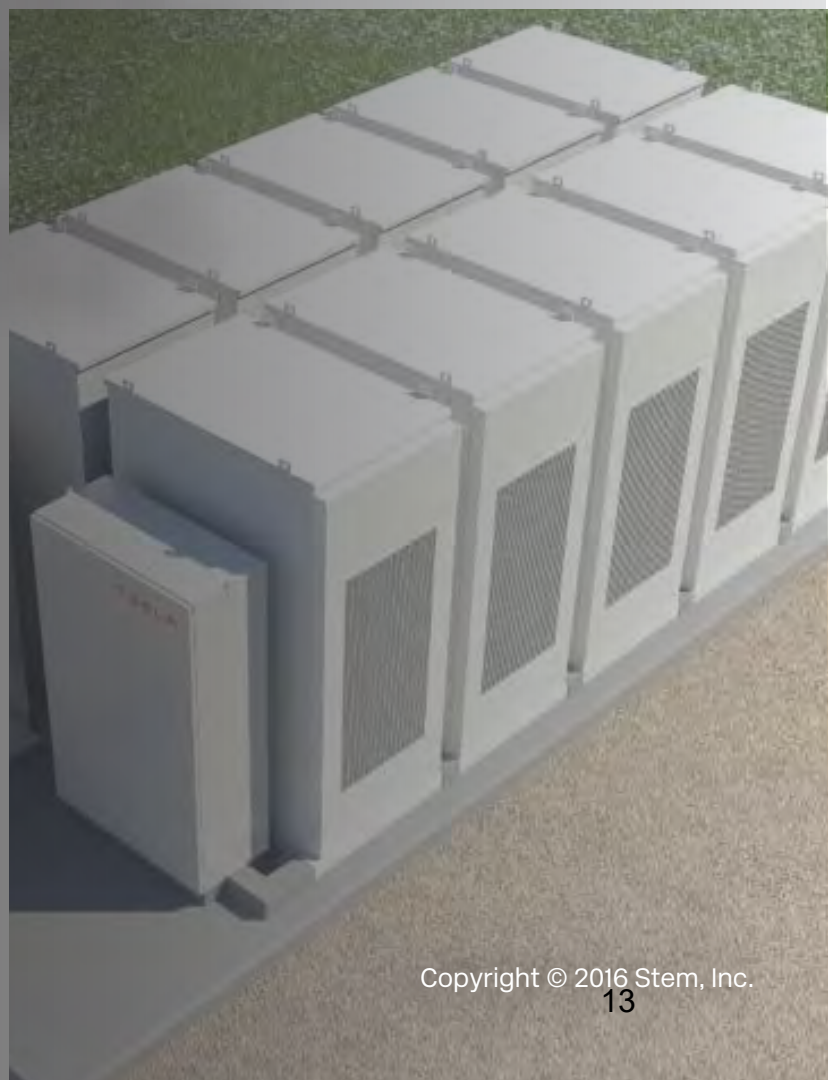


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Access new revenue opportunities from utilities and energy markets without any effort.



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No upfront cost or change to operations. Installation is simple and cost savings typically amount to more than double the monthly service fee.

## Powerful cloud software



### Unparalleled visibility

View historical and real-time energy use, and accurately predict your energy bill before it arrives.



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Set alerts to know when your energy rates change and when your facility is approaching expensive demand peaks.



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# C/CAG AGENDA REPORT

**Date:** August 16, 2017  
**To:** Resource Management and Climate Protection Committee  
**From:** Adrienne Carr, BAWSCA, RMCP Committee Member  
**Subject:** Bay Area Water Supply and Conservation Agency update on current water supply and conservation  
  
(For further information contact Kim Springer at 650-599-1412)

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## **RECOMMENDATION**

Receive an update on current water supply and recent State actions.

## **FISCAL IMPACT**

None

## **BACKGROUND/DISCUSSION**

The Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the 26 wholesale customers of the San Francisco Regional Water System, continues to work with its member agencies to use water wisely and plan for future water supply reliability.

BAWSCA staff has been providing short updates of water supply conditions to the RCMP Committee. The most recent update was at the March 15, 2017 meeting. Adrienne Carr, Senior Water Resources Specialist, will provide an update again at this meeting on the current water supply outlook and regional water use patterns since the end of the drought.

## **ATTACHMENTS**

None



# C/CAG AGENDA REPORT

**Date:** August 16, 2017  
**To:** Resource Management and Climate Protection Committee  
**From:** Kim Springer, County Staff  
**Subject:** Presentation about August 21, 2017 solar eclipse effect on California's solar power resources

(For further information contact Kim Springer at 650-599-1412)

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## **RECOMMENDATION**

Receive a presentation about August 21, 2017 solar eclipse effect on California's solar power resources.

## **FISCAL IMPACT**

None

## **BACKGROUND/DISCUSSION**

The last total solar eclipse to pass over the US was in 1979. At that time, California was much less dependent on solar energy than we are today. On August 21, 2017, there will be a total solar eclipse that will stretch from the northern area of the State of Washington, through the Carolinas. Across the US, it's expected that 1900 utility-scale solar power plants will be affected.

Though it will not be a total eclipse in California, the California Independent System Operator (CAISO) will have to balance the dip in renewable generation throughout the period of the eclipse. Most of California will experience 90% (in the north) to 60% loss of solar radiation.

The event has prompted the California Public Utilities Commission to send out a press release asking local governments to participate in curtailing energy use during the eclipse period, which is locally from approximately 9:00 to noon.

## **ATTACHMENT**

CPUC Press Release



## ONE THING FOR THE SUN CAMPAIGN

**‘Our Sun Works Hard for Us, so during the Eclipse on August 21, Join us and Pledge to do One Thing for the Sun to Save Energy’**

On August 21, 2017, a partial solar eclipse will travel across California from about 9:02am until about 11:54am. The sun will be obscured from 76% in Northern California to 62% in Southern California border area, and this reduction in solar radiation will directly affect the output of California’s abundant solar energy resources. While our utilities and grid operator have all the tools necessary to manage the grid during the eclipse, what if millions of Californians stepped in to allow our hard-working sun to take a break, rather than relying on expensive and inefficient natural gas peaking power plants? By plugging into the power of California’s citizens and unplugging from the grid, we’ll have cleaner air, we’ll keep our energy system reliable, and we’ll send a message to the rest of the country that we can do all of that without being forced to rely on fossil fuels. So on Aug 21, let’s all get together and pledge to do one thing to reduce our energy consumption and give our hard-working sun a break.

### **Take the Pledge**

The *One Thing for the Sun* campaign seeks to engage with people, businesses, organizations and government across California to take one action during the solar eclipse on Aug 21 to reduce electricity usage. This will allow California to burn fewer fossil fuels and emit fewer GHG emissions while California’s solar energy production dips during the eclipse. The *One Thing for the Sun* campaign is an effort to engage Californians in our world-leading clean energy economy by demonstrating that, when we come together to each do one small thing to reduce energy usage, we can have a major impact on our environment. **Go to [www.CalEclipse.org](http://www.CalEclipse.org) to take the pledge!**

### **One Thing for the Sun Partnership**

In addition to individual pledges, the campaign is engaging with State and Local government, clean energy industry, advocacy organizations and business to form the *One Thing for the Sun Partnership*. Partners pledge to work with the California Public Utilities Commission, California Energy Commission and the California Independent System Operator to develop energy saving plans that will be deployed during the Eclipse. These plans range from smart thermostat companies designing air conditioner cycling programs that will reduce the need to use natural gas to local governments activating their energy efficiency and demand response capabilities across their buildings.

### **Why Become a ‘One Thing Partner’?**

The *One Thing for the Sun Partnership* is a unique opportunity for institutions from across California to come together to stand up for California’s clean energy future during this once in 50 year celestial event to take to save energy and reduce GHG emissions. ‘One Thing Partners’ will benefit from a unique branding and awareness-raising opportunity. Every Californian will witness the Eclipse, and the Partnership will seek to leverage the significant media coverage of the Eclipse to raise awareness of California’s clean energy leadership and the role that its citizens, companies, institutions and governments are playing in driving this future forward.

### **Clean Energy in California**

California has a goal of 50% renewable energy by 2030. At the end of 2016, California's three large investor-owned electric utilities collectively provided their customers with over 27% of their electricity from renewable sources like the wind and sun. California is also a leader in energy efficiency and demand response. In 2016, California's energy efficiency programs saved Californians over 1,000 GWhs, resulting in billions of dollars of bill savings. California's clean energy economy has been an engine of jobs creation, with over 500,000 Californians working to install solar panels, make electric vehicles and upgrade buildings with more efficient equipment.

### **The Eclipse and the Grid**

The California Independent System Operator (ISO) is planning for the Eclipse by ensuring that enough natural gas fueled power plants and hydro-electric dams are standing by to replace the solar that will be blocked by the Eclipse. The ISO's long experience operating our grid, which at times is over half powered by wind and solar, has given them all the tools they need to ensure grid reliability during the Eclipse.

### **One Thing for the Sun Campaign Objectives**

The California Public Utilities Commission (CPUC), the California Energy Commission and the ISO are pursuing a statewide campaign – *Do One Thing for the Sun* – in an effort to raise awareness of California clean energy and the opportunity that the Eclipse presents to deploy *clean and people-driven solutions* to meet the needs of the grid. We seek to engage with tens of thousands of Californians to reduce electricity usage during the Eclipse and:

- Help Californians understand the challenges of a fast changing and dynamic energy grid
- Send a message to Secretary of Energy Rick Perry (formerly of Texas) that Californians can do their own thing and meet their own electric power destiny through clean tools, rather than relying on fossil fuels power.
- Raise awareness that people's individual energy decisions are a critical part of meeting California's clean energy goals

### **Join us!!!**

Local Governments interested in becoming 'One Thing Partners' should email Stephanie Green ([stephanie.green@cpuc.ca.gov](mailto:stephanie.green@cpuc.ca.gov)) at the California Public Utilities Commission to set up a call to discuss the partnership, how to develop an Eclipse Energy Savings Action Plan and opportunities to share your Clean Energy story with your community and all Californians. In the meantime, here are some actions to take:

1. Inform Californians through news and social media about the solar eclipse – visit [CalEclipse.org](http://CalEclipse.org) for more information.
2. Ask your residents to take the pledge to do at least ONE thing for the sun such as turning air conditioning thermostats up 2 to 4 degrees, shutting down three power strips, and avoid charging electric vehicles during the period from 9:00 am to noon on August 21 – visit [CalEclipse.org/Pledge](http://CalEclipse.org/Pledge) for more information.
3. Issue resolutions encouraging support and asking local agencies and employees to turn off unnecessary lights and power strips – sample resolution attached

**One Thing for the Sun Partnership – Eclipse Energy Savings Action Plan**

<b>Energy Savings Plan</b>	<b>Target Participants</b>	<b>Communications Plan</b>

Below is an example of how One Thing for the Sun Partners may want to articulate their Eclipse Energy Savings Action Plan.

City of XYZ

<b>Energy Savings Plan</b>	<b>Target Participants</b>	<b>Communications Plan</b>
<i>Brief description of primary energy savings actions planned, including any planned coordination with CPUC, CEC, CAISO or Utilities</i>	<i>Overview of target audiences and participants of Energy Savings Action Plan</i>	<i>Overview of primary communications and outreach strategies to share Energy Savings Action Opportunities</i>
<ul style="list-style-type: none"> <li>-Remotely program HVAC units across city owned buildings to reduce energy usage during eclipse</li> <li>-Send notice to all city workers to Take the Pledge</li> <li>-Work with CPUC, CAISO and Utilities to validate HVAC control strategy</li> </ul>	<ul style="list-style-type: none"> <li>-Planned outreach to 750 city employees</li> <li>-Planned outreach to building managers with directions to modify operations of HVAC during Eclipse</li> </ul>	<ul style="list-style-type: none"> <li>-Email notice to all City workers</li> <li>-City Council adopts Resolution</li> <li>-Feature One Thing for the Sun campaign in digital communications (city facebook page)</li> <li>-Host Energy Savings Action Plan on city sustainability website</li> </ul>

## **SAMPLE RESOLUTION LANGUAGE**

**WHEREAS,** On August 21, 2017, a partial solar eclipse will travel across California, obscuring between 60 – 76 percent of state from the sun. The reduction in solar radiation will directly affect the output of both large scale photovoltaic (PV) electric power plants and rooftop solar.

**WHEREAS,** California has built a large amount of renewable energy electric power plants. Nearly 10,000 megawatts of commercially operational grid connected solar PV are currently operated by California’s investor owned utilities, and more will soon be completed.

**WHEREAS,** Initial estimates show at the eclipse peak, for the California Independent System Operator’s balancing authority area, commercial solar production will be reduced from an estimated 8,754 megawatts to megawatts at the maximum partial eclipse and then return to 9,046 megawatts.

**WHEREAS,** Over 5,800 megawatts of customer or third party-owned rooftop solar installed on homes and businesses in the same areas will be affected.

**WHEREAS,** the California Independent System Operator (ISO) plans for events such as this, where loss of power generation not only reduces the amount of electrical energy available to customers, but also produces imbalances that can cause other critical problems. In order to avoid that type of failure, the ISO will ensure that other power sources, like gas power plants or hydro facilities are held ready to step in, or cut off power to some customers.

**WHEREAS,** Millions of Californians can step in to allow our hard working sun to take a break. Rather than relying on primarily on expensive and inefficient natural gas peaking power plants, California citizens can unplug from the grid so that we can have cleaner air, keep our system reliable, and send a message to the rest of the country that we don’t have to rely on fossil fuels as the only foundation of our electricity.

**NOW, THEREFORE,** I call on all Californians to step forward and to do at least one thing to stand in for the solar power that we enjoy from our hard working sun, including turning air conditioning thermostats up 2 to 4 degrees, shutting down three power strips not supplying electricity to appliances in use, and avoid charging electric vehicles during the period from 9:00 am to noon on August 21. I further encourage local government agencies to be leaders in this effort and assess actions that can be taken at government-owned facilities to reduce demand for electricity for the duration of the eclipse.

**NAME**

**TITLE**