

C/CAG

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Agenda

Resource Management and Climate Protection Committee (RMCP)

Date: Wednesday, June 28, 2017

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

Location: 155 Bovet Rd – Ground Floor Conference Room
San Mateo, CA

1. Introductions
2. Public Comment
3. Approval of Minutes from February 15, and March 15, 2017 meetings
(Kim Springer – Committee Staff) Action
4. Presentation on SHARC Energy Systems, Piranha thermal energy recovery system
(Lynn Mueller, SHARC) Presentation, Discussion
5. DNV GL presentation on international study, “Energy Transitions: Mid-sized Cities Leading the Way”
(Betty Seto – DNV GL) Presentation, Discussion
6. Presentation on State Energy Efficiency Collaborative (SEEC) Forum
(Kim Springer, County OOS Staff) Presentation, Discussion
7. Presentation on new PG&E-supported HomeIntel residential home energy reduction program
(Lisa Schmidt, Home Energy Analytics) Presentation, Discussion
8. Committee Member Updates
9. Next Regular Meeting Date: July 19, 2017

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.

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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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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 4th. 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 6th.

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 Garmeaux

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.

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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: June 28, 2017
To: Resource Management and Climate Protection Committee
From: Kim Springer, RMCP Committee Staff
Subject: Presentation on SHARC Energy Systems, Piranha thermal energy recovery system

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

RECOMMENDATION

Receive a presentation on SHARC Energy Systems, Piranha thermal energy recovery system as requested by RMCP committee members.

FISCAL IMPACT

None

BACKGROUND/DISCUSSION

During the February 2017 RCMP Committee meeting, committee members mentioned a new product that collects waste heat from wastewater to preheat fresh water input to buildings. With multiple approaches to reducing energy use being developed to reduce greenhouse gas emissions, especially electrical energy, approaches to reducing natural gas use, which is typical for water heating, are a welcome addition to an energy-savings portfolio.

The system is manufactured by a company called International Wastewater Systems, Inc., and is called the PIRANHA system. These systems have been installed across Canada in the USA, the UK, and Australia.

Lynn Mueller, from International Wastewater Systems, Inc. will present on this new system, Information on the system is provided as an attachment to this staff report.

ATTACHMENTS

International Wastewater Systems PIRANHA information



PIRANHA™
THERMAL ENERGY RECOVERY SYSTEM

PIRANHA PERFORMANCE

The PIRANHA™

International Wastewater Systems has established itself as a world leader in the thermal energy recovery industry, having proved economic viability of the concept with numerous installations of its patented SHARC system worldwide.

Following the success of the SHARC, the IWS team is proud to introduce its newest system; the PIRANHA to complement the existing product range and cater to smaller scale applications.

The PIRANHA is a self-contained thermal energy recovery system specifically designed to pre heat domestic hot water by re-using energy contained in wastewater that would otherwise be lost down the drain.

A first of its kind in the HVAC market the PIRANHA is primed to redefine green building innovation.

The system is suitable for a wide range of applications including multi-unit residential and commercial buildings.

The PIRANHA operates at efficiencies of 400-600% and supports green building objectives, delivering zero emission water heating.



- ✓ Clean, Eco friendly, Renewable Water Heating - Without Carbon Emissions
- ✓ Operational Cost Savings - Fast ROI
- ✓ Robust Design with Minimal Maintenance Required and Long Product Life-cycle (25 Years+)

1100 Room Hotel & Convention Center (Feasibility Outcome) Orlando, Florida



Operational Savings

Two PIRANHA 160 units recycling the warm wastewater discarded from the hotel and convention center provides an estimated annual savings of **\$19,691** for domestic hot water heating during the first year of operation, generating an **ROI of 20%** for the client.

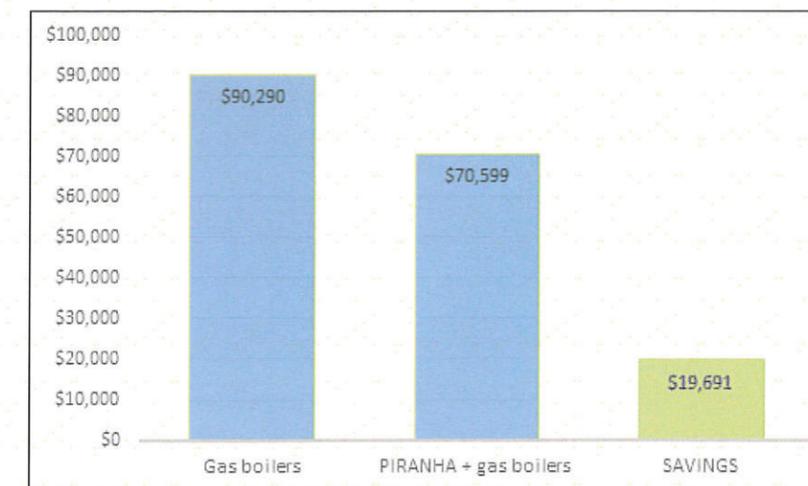
The PIRANHA system operating at an average COP of 5 covers up to 40% of the annual net energy demand for domestic hot water preparation.

Energy Security

The annual energy cost savings is expected to increase annually with inflation and offers the facility price stability against the fluctuating costs of fossil fuels.

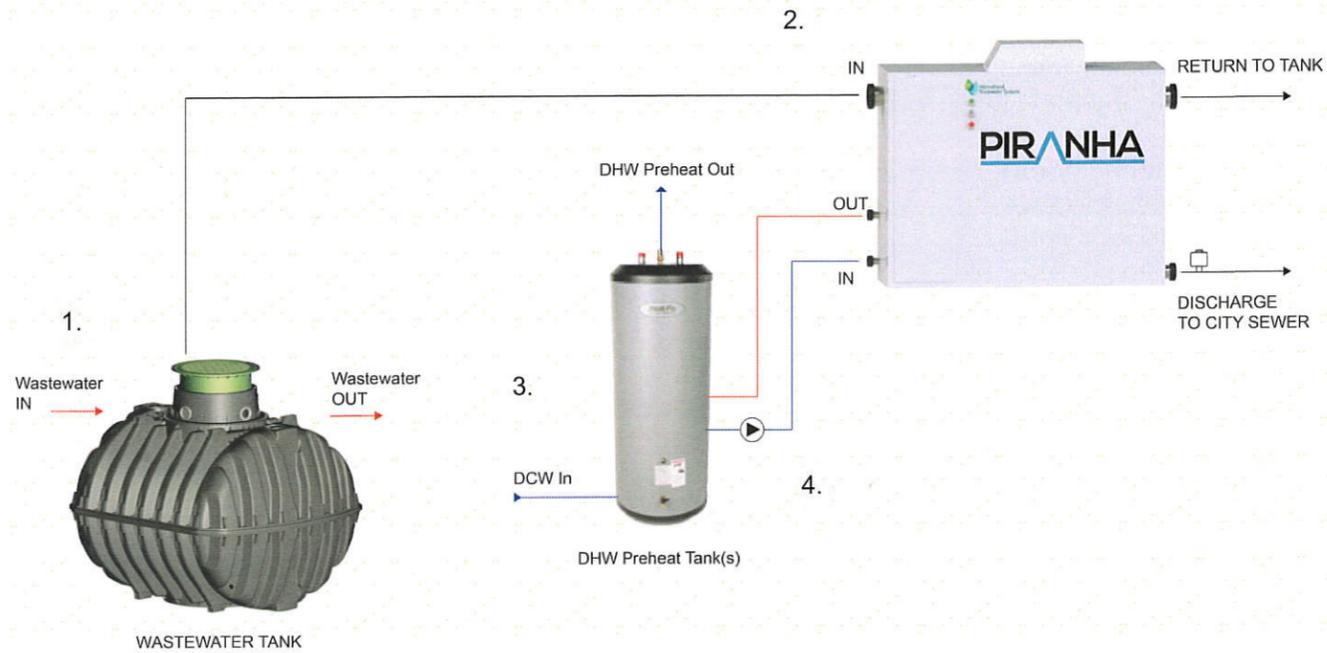
Supports Green Building Culture

In addition to the operational cost savings, the client was able to attain mandated green building requirements for the project by offsetting carbon emissions with the PIRANHA system.



Annual energy costs and savings (\$USD)

HOW IT WORKS



The PIRANHA uses a direct refrigeration process where the incoming warm wastewater provides the refrigeration circuit the energy to output hot domestic water.

➔ The PIRANHA system contains the following components:

1. Auxiliary Wastewater Storage Tank with Submersible Pump(s)
2. The PIRANHA
3. Domestic Pre-Heat Storage Tanks
4. Domestic Circulation Pump(s)

PIRANHA MODEL SPECIFICATIONS

Description	T3	T5	T7.5	T10	T15
Water Connections (inches NPT)	1"	1"	1 ¼"	1 ¼"	2"
Wastewater In (inches grooved)	4"	4"	4"	4"	4"
Drain (inches grooved)	4"	4"	6"	6"	6"
Vent (inches grooved)	3"	3"	4"	4"	4"
Cabinet Length (inches/mm)	55 1397	55 1397	90 2286	90 2286	90 2286
Cabinet Height (inches/mm)	76 1931	76 1931	76 1931	76 1931	76 1931
Cabinet Depth (inches/mm)	33 839	33 839	33 839	33 839	33 839
Approximate Weight (lbs/kg)	1140 517	1140 517	1140 517	1140 517	1140 517
Approximate Contents Weight (lbs/kg)	1335 606	1335 606	2916 1323	2916 1323	2916 1323
Wastewater Content (US gallon/litres)	160 606	160 606	344 1303	344 1303	344 1303
Condenser Pressure Drop (psid)	8	5.5	9	6	7
Operating Pressure (psi/kpa)	75 517	75 517	75 517	75 517	75 517
Agitator	No	No	Yes	Yes	Yes
Access Hatches	1	1	2	2	2
Refrigeration Type	134a	134a	134a	134a	134a
Quantity(pounds)	9	9	15	20	20
Domestic Water Flow Rate (gpm - l/sec)	7.2 0.45	12 0.76	18 1.14	24 1.51	36 2.27

C/CAG AGENDA REPORT

Date: June 28, 2017
To: Resource Management and Climate Protection Committee
From: Kim Springer, RMCP Committee Staff
Subject: DNV GL presentation on international study, “Energy Transitions: Mid-sized Cities Leading the Way”

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

RECOMMENDATION

Receive a presentation by DNV GL on an international study, “Energy Transitions: Mid-sized Cities Leading the Way”.

FISCAL IMPACT

None

BACKGROUND/DISCUSSION

DNV GL has recently completed a study with multiple of their international offices providing a study on examples of how mid-sized cities are transition to distributed energy resources. Much study has been done on very large cities, but this study is, perhaps, more pertinent to San Mateo County.

DNV GL has a specific program they call the Energy Transition Framework for Cities, which has seven “dimensions”, and is used to describe local efforts.

Betty Seto (DNV GL) will present on this recent report, which highlights best practices related to sustainability, climate action and resilience as cities move from fossil fuel-based energy economies toward greener solutions. Three cities in the US are highlighted in the report.

ATTACHMENTS

None

C/CAG AGENDA REPORT

Date: June 28, 2017
To: Resource Management and Climate Protection Committee
From: Kim Springer, RMCP Committee Staff
Subject: Presentation on State Energy Efficiency Collaborative (SEEC) Forum

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

RECOMMENDATION

Receive a presentation on State Energy Efficiency Collaborative (SEEC) Forum.

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 State Energy Efficiency Collaborative (SEEC), which is made up of the state's investor owned utilities, the Local Government Commission, and ICLEI, present an annual forum in different cities in the state. This year, the SEEC Forum was held in Fresno on June 13, through June 15, 2017.

SMCEW Staff will provide an overview of a few of the presentations that set the theme for the year. The program for the 2017 Forum is provided as an attachment to this staff report.

ATTACHMENTS

State Energy Efficiency Collaborative Forum Program



8th Annual Statewide Energy Efficiency Forum

Wednesday, June 14th – Thursday, June 15th • Fresno, CA

- OVERVIEW
 - PROGRAM
 - SESSIONS
 - PAST FORUMS
- CONTACT

Final Program

Pre-Forum Workshops | June 13th

Energy Efficiency 101 Workshop

9:30 AM -12:30 PM

This workshop aims to provide key background information to help new energy practitioners get the most out of the forum. Participants will learn about State goals to reduce greenhouse gas emissions and key funding opportunities (e.g. the Greenhouse Gas Reduction Fund/cap-and-trade program); important regulatory proceedings and how local governments can get involved; State goals and best practices for zero net energy and electric vehicles, additional common best practices for municipal retrofits, business and community outreach, and more; how to get started in ClearPath to complete greenhouse gas inventories, forecasts, and climate action plans; and resources available to local governments as they relate to energy efficiency.

1:00 PM -5:00 PM

Zero Net Energy for Local Governments Workshop

This workshop is designed to give local government staff the information, tools, and confidence to create and drive progress toward zero net energy goals. Case studies show how cities can be leaders within their own public building portfolios by creating a clear code and policy roadmap, and by transforming the market through public awareness. We will review how to achieve climate goals through ZNE pilot projects, deep energy retrofits starting with municipal building benchmarking and portfolio analysis, ZNE codes, financial incentives, ZNE recognition, and other tactics. In addition to sharing examples of successful plans and ZNE-ready policies, small working groups will develop their own ideas utilizing training materials. Learn more [here](#).

Tour and Documentary Screening at BitWise

Screening: [Time to Choose](#)

Trailer: <https://www.youtube.com/watch?v=gmGbUuoc-A>

7:00 PM – 9:00
PM

Academy Award®-Winning documentary filmmaker Charles Ferguson (*Inside Job, No End in Sight*) turns his lens to address worldwide climate change challenges and solutions in his new film TIME TO CHOOSE. Featuring narration by award-winning actor Oscar Isaac, TIME TO CHOOSE leaves audiences understanding not only what is wrong, but what can to be done to fix this global threat. Ferguson explores the comprehensive scope of the climate change crisis and examines the power of solutions already available. Through interviews with world-renowned entrepreneurs, innovators, thought leaders and brave individuals living on the front lines of climate change, Ferguson takes an In-depth look at the remarkable people working to save our planet.

Forum Day 1 | June 14th

8:00 AM – 9:15
AM

Registration and Continental Breakfast

Welcoming Remarks

9:15 AM – 9:45
AM

- Councilmember Oliver L. Baines III | District 3, City of Fresno
- Kimberly Rodriguez | Principal Manager, Community and Government Energy Assistance, Southern California Edison
- Kate Meis | Executive Director, Local Government Commission

9:45 AM – 11:15

Opening Plenary Session: The Path to 2030

AM

The role of state and local governments in combating climate change is increasingly important as the world watches the Federal Government dismantle climate programs and agreements. The State of California continues to serve as an international leader through aggressive 2030 targets to: reduce statewide greenhouse gas emissions to 40% below 1990 levels, double energy savings in existing buildings, and achieve zero net energy in all new and 50% of existing commercial buildings. The challenge for state agencies and their local partners will be meeting these ambitious goals. This opening plenary session will highlight key challenges and opportunities from the State and local perspectives.

- Moderator: Kate Meis | Executive Director, Local Government Commission
- Leticia Perez | Kern County Supervisor, Fifth District
- Mindy Romero | Founder & Director, California Civic Engagement Project, UC Davis Center for Regional Change
- Randall Winston | Executive Director, Strategic Growth Council

11:15 AM – 11:45

AM

Networking Coffee Break

11:45 AM – 12:30

PM

Spotlight Sessions

12:30 PM – 1:30

PM

Networking Lunch

Keynote: Save Money, Save the World – The Next Level of Energy Efficiency

1:30 PM – 2:00

PM

Dian will review the remarkable achievements of California's energy efficiency history, which has saved billions of dollars, created thousands of new jobs, and avoided building dozens of powerplants. She will highlight the critical role of local governments in these accomplishments. Participants will learn about the challenges ahead for the next level of energy efficiency and the opportunities that exist, particularly at the local level, beyond the first generation of efficiency.

- Dian M. Grueneich | Senior Research Scholar, Stanford University

2:00 PM – 3:15

PM

Breakout Sessions

3:15 PM – 3:30

Networking Coffee Break

PM

3:30 PM – 4:45

Breakout Sessions

PM

4:45 PM – 5:30

Break

PM

5:30 PM – 7:00

Energy Champions Networking Reception & Poster Displays

PM

Tour and Documentary Screening at BitWiseScreening: [Tomorrow](#)Trailer: <https://vimeo.com/201669535>

7:00 PM – 9:00

PM

TODAY, we sometimes feel powerless in front of the various crises of our times. TODAY, we know that answers lie in a wide mobilization of the human race. Over the course of a century, our dream of progress commonly called “the American Dream”, fundamentally changed the way we live and continues to inspire many developing countries. We are now aware of the setbacks and limits of such development policies. We urgently need to focus our efforts on changing our dreams before something irreversible happens to our planet. TODAY, we need a new direction, objective... A new dream! The documentary Tomorrow sets out to showcase alternative and creative ways of viewing agriculture, economics, energy and education. It offers constructive solutions to act on a local level to make a difference on a global level. So far, no other documentary has gone down such an optimistic road... TOMORROW is not just a film, it is the beginning of a movement seeking to encourage local communities around the world to change the way they live for the sake of our planet.

7:00 PM – 9:00

PM

Tour and Informal Networking at Tioga-Sequoia Beer Garden

Join forum participants and your local government peers at Tioga-Sequoia Brewing Company’s Beer Garden for a tour of their facilities and a night of informal networking. Discounts on beer will be provided to forum participants.

Tioga-Sequoia Brewing Company was founded in 2007 with a mission of producing world class beers that could bring awareness and resources to the preservation of the Southern Sierra Nevada Mountains in California. In 2010, they planted their flag in Downtown Fresno, CA and decided to take their journey of becoming the San Joaquin Valley’s local brewery a step further. Tioga-Sequoia’s beer and brands reflect the greatness of the region they brew in, highlighting the beauty of the Southern Sierras that run along the Eastern side of the San Joaquin Valley that include landmarks such as Yosemite

National Park, Sierra National Forest, Sequoia National Park, Kings Canyon National Park, and Sequoia National Forest. They also integrate and feature local flavor, creativity, and culture in our products to give our valley residents a sense of pride in what they drink and support.

Forum Day 2 | June 15th

6:00 AM Morning Run led by Fleet Feet Fresno

7:30 AM – 8:30 AM
Registration and Continental Breakfast

Plenary Session: Grid 2.0

We have an aging grid with growing demand from an explosion of new technologies. In order for the grid to remain secure and reliable, as well as resilient to climate impacts, a host of new technologies and strategies will need to be seamlessly integrated – from distributed energy resources and microgrids to electric vehicles and smart buildings. This plenary session will dive into key considerations and approaches of grid modernization, highlighting case study examples and replicable strategies for local government.

8:30 AM – 10:00 AM

- Cary Garcia | Statewide Local Government Energy Efficiency Best Practices Coordinator (moderator)
- Gerry Braun | Director, The IRES Network
- Gil Friend | Chief Sustainability Officer, City of Palo Alto
- Joseph Oldham | Director, San Joaquin Valley Clean Transportation Center, CALSTART
- Garrett Wong | Senior Sustainability Analyst, City of Santa Monica

10:00 AM – 10:30 AM
Networking Coffee Break

10:30 AM – 12:00 PM
Working Sessions

12:00 PM – 1:00 PM
Networking Lunch

1:00 PM – 2:15 **Breakout Sessions**

PM

2:15 PM – 2:30

Break

PM

Closing Keynote: Bridging the Mitigation-Adaptation Gap

2:30 PM – 3:00

PM

From extreme weather to rising tides, the threat that climate change poses to businesses and communities is becoming all too apparent. For energy providers such as PG&E, as well as customers and communities across the state, it requires taking action now to build climate resilience. Participants will learn about the key risks from a changing climate, as well as a range of emerging resilience solutions, including strategies that simultaneously reduce greenhouse gas emissions and build community resilience.

- Christopher Benjamin | Director, Corporate Sustainability, Pacific Gas and Electric Company

Closing Remarks

3:00 PM – 3:15

PM

- Courtney Kalashian | Executive Director, San Joaquin Valley Clean Energy Organization

C/CAG AGENDA REPORT

Date: June 28, 2017
To: Resource Management and Climate Protection Committee
From: Kim Springer, RMCP Committee Staff
Subject: Presentation on new PG&E-supported HomeIntel residential home energy reduction program

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

RECOMMENDATION

Receive a presentation on new PG&E-supported HomeIntel residential home energy reduction program.

FISCAL IMPACT

None

BACKGROUND/DISCUSSION

The RMCP Committee received a presentation by Home Energy Analytics (HEA) at the November 2013 meeting. HEA developed a proprietary software that stacks smart meter data on daily usage and season usage basis and, using algorithms, develops a profile of what approaches to energy efficiency might be most applicable for that home. The software might pinpoint high plug load usage, or need for insulation if there are deep seasonal trends, or perhaps it might detect intermittent demands, such as a pool pump.

Using the HEA software, HomeIntel is a new program to help residents reduce energy being wasted in their homes. This may be the CPUC's and PG&E's first effort toward providing incentives based on actual energy saving, as opposed to deemed or calculated approached.

Lisa Schmidt (HEA), will provide a presentation on this new program, which is targeting larger homes as a pilot. A link to the program website is provided below.

ATTACHMENTS

<https://www.homeintelinc.com/>