C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS
OF SAN MATEO COUNTY

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Resource Management and Climate Protection Committee (RMCP)

Minutes of June 27, 2018 Meeting

In Attendance:
Maryann Moise Derwin, Committee Vice Chair, Mayor Portola Valley*
Diane Papan, Councilmember, San Mateo*
Pradeep Gupta, South San Francisco City Council*
Rick DeGolia, Town of Atherton*
Bill Chiang, PG&E*
Dave Pine, County Supervisor*
Terry Nagel, SSMC Board Member*
Robert Cormia, Professor Foothill-DeAnza*
Adrianne Carr, BAWSCA*
Sandy Wong, C/CAG
Kim Springer, County Office of Sustainability
John Allan, County Office of Sustainability
Malini Kannan, Clean Coalition
Justine Burt, Clean Coalition

Not in attendance:
Deborah Gordon, Committee Chair, Woodside Town Council*
Don Horsley, County Supervisor*
Ortensia Lopez, El Concilio of San Mateo County*

* Committee Member (voting)

1. **Introductions**

2. **Public Comment**
   No public comments

3. **Approval of Minutes from February 21, 2018, March 21, 2018, and April 18, 2018 Committee meetings.**
   - February 21, 2018 Minutes
     - Motion to approve – Gupta/ Second – DeGolia
     - No objections/abstentions
   - March 21st, 2018 Minutes

        - Motion to approve – Carr/ Second Papan
        - Bill abstains
    - April 18th, 2018 Minutes
        - Motion to approve – Gupta/ Second - Carr
        - Bill Abstains

4. Presentation - Peninsula Advanced Energy Community Phase 1 delivered and proposed Phase 2.

Clean Coalition presented on Peninsula Advanced Energy Community CEC Grant (PAEC), Clean Coalition just completed final report which included the following:

- Looking at how to deploy 25mW of energy in southern SMC
- Findings from CEC for 21-month project
- How to accelerate deployment and development
- Co-benefits of energy efficiency, renewables, EV charging infrastructure, ZNE, energy storage, cost savings, minimizing new infrastructure, and integration with grid.
- Look at existing building stock, not just new construction

Southern SMC has 65MW of solar potential despite being a highly-developed area with dense tree canopy, include parking lots, schools, and parking structures. All sites identified have 100kw potential or more. In terms of emergency microgrids, key sites are hospitals, EMS, ICUs, etc.

Some key challenges are: life cycle cost assessments, which should be NPV positive, capital vs. operating costs, split incentives, falling renewables prices not falling quickly enough, need for economies of scale, limited financing programs, a "swiss cheese landscape" that doesn't serve everyone

There are also policy challenges, which include inconsistent permitting and cumbersome interconnection approval processes.

PAEC key findings:

- potential projects are being ignored for better payback
- modeling of project bundling found significant IRR (~18-22%)
- model ordinances, vetting with NPV positive, could be shared with municipalities to make the process easier
- On Bill Financing is great to public and commercial buildings, but what about residential?
- Policy is needed to help streamline interconnection/permitting. Clean Coalition is working with PGE to streamline the process.
- Energy Storage is a newer technology but prices are coming down quickly.

Gupta – Are the results based on today's prices or anticipated costs?
Burt – This is a 21-month project so prices may have fluctuated but I'm sure the numbers are up to date. However, verify data on clean-coalition website

Cormia– What's the possibility of getting GIS students more involved?
Burt - It would be great to see other students getting involved.

Springer – In packet, you will find link to CC website, dozens of reports to go through, each with great new insight.

Malini Kannan, Clean Coalition Program Engineer, continued the presentation with a PAEC Master Community Design, which was the final task in the grant. The Design is intended to put together findings of the first 9 tasks and identifies several project sites in Redwood City and is called the Redwood City Community Microgrid, which includes a diverse set of use cases:

The Designed core sites are proposed to include: solar emergency grid, community microgrids, or largescale EV charging deployment, with the project aiming to bring resilience to the community and municipal sectors.

The key findings we that it makes sense to:

- bundling project for lower cost and bankability
- solar + storage is feasible
- involves looking at facility and right sizing power for critical loads.
- design microgrids for building that already have EE projects
- integrating batteries with EV charging is cost effective which helps reduce demand charges.

Cormia - Analysis at Foothill shows for every 14 cars at demand charge is $1000. Cost comes to $10/charging day
Kannan - Was energy storage required or considered? Often, daytime EV charging profile shows a peak at 9, but then trickles down. A campus scenario is probably different.

Sites where solar, storage and EVCI will be installed in redwood city includes community microgrids, combining multiple meters into one. It's easier to do these projects behind the meter. When more than one meters are combined, there is more red tape. CPUC code makes this difficult.

The proposed approach is that sites are only connected during grid outages, and the Clean Coalition is working with PGE to develop pilot project.

Gupta – A microgrid is defined as a group of loads that can be separate. Usually just one connection. Has this design been done on paper or has it been approved on PGE? Where is it?
Kannan - Partially, let's skip ahead and look at the Phase 2 projects.

The Phase 2 projects include:

- deploying 1.2 mw of solar interconnected using PGE tariff NEM2
- behind the meter
- potential for 2.1mw in addition.
- additionally, 2.8 mw hours of battery storage.

Please see PAEC Project website for further details on individual projects: http://www.clean-coalition.org/our-work/peninsula-advanced-energy-community/

5. Bay Area Water Supply and Conservation Agency update on current water supply and conservation.

Adrianne Carr presented on the current water supply conditions and groundwater basin reprioritization in San Mateo County.

At this time, the System is full, with the only reservoir that isn't full being calaveras which is under construction. Hetch Hetchy precipitation is just below a median year and the snowpack got up to 75% of median but is fully melted at this point. Up-country – precipitation: March was huge which brought it up to just under the average, and the same is true with bay area stations.

SFPUC water deliveries we're still under 2017 deliveries and conservation continues. BAWSCA total water use is still 26% less than 2013 and conserving water.

In terms of new conservation legislation, is requiring that water suppliers calculate and report use, conduct annual assessments, comparing target to actual use. First reporting will be in 2023, and the target includes indoor/outdoor residential, efficient outdoor water use, water loss, and a potable reuse credit. Most agencies (especially in Bay Area) are far below target of 55 gallons/person daily.

Derwin - What about communities like bear gulch which use a lot of water?
Carr - There are estimates related to the amount of irrigable land which will be considered. The DWR is responsible for giving each agency a number and there will likely be an opportunity to respond

In terms of enforcement, the actions will be in the form of:

- 2023, information orders,
- 2024, written notice,
- 2025, conservation orders.

In terms of implementation deadlines:

- 2020, DWR to recommend standards and provide irrigable water data
- 2021, outdoor residential to SWRCB
- 2022, state board adopts standards
- 2023, first reporting.

BAWSCA is currently revising conservation strategic plan. The workplan includes a consultant contracts for water loss management program, an indoor-outdoor water use study for some agencies that need more help, and a starting pilot program for commercial and Industrial audits.

Recently, DWR reprioritized groundwater basins, based on new data in CASGEM. Older data was used for original rankings back in 2014, and they used a more standardized way to evaluate basins, (water quality, pumping). In San Mateo County, the new method proposed Medium and High priority for San Mateo Plain and Westside Basin, and Half Moon Bay Terrace, respectively.

Kannan – What is efficient water loss?
Carr - each agency must report loss; the state will make a ruling on what is considered efficient. This includes leaks on utility/agency side.

6. Update and discussion on San Mateo County Energy Strategy 2025 content, DNV GL scope of work, stakeholder assignment effort, and project schedule

Kim Springer gave an update on continuing progress of launching the update of the San Mateo County Energy and Water Strategy 2025. The original Strategy was written by the USTF task force in 2006 to 2008. This time around, the RMCP Committee will receive updates and review the text of the document, but the stakeholder work will be completed outside of the Committee. Staff will insure additional levels of stakeholder review.

Springer presented updates to the stakeholder lists for both Energy and Water and presented the proposed launch date for the first joint stakeholder meeting to be on July 26.

Springer suggested that Goals, Actions, and then Strategies was the form of the original document and asked the Committee if this should be the same approach for the 2025 update.
Gupta - the framework is fine, topics are necessary to help our understanding but given PCE community programs, Clean Coalition and CEC grants, intercity/ community projects, there should be an action plan or suggested action plan.
Springer - This report is a transition. We should look back to where we were and look to where we're going. In this report, buildings are a larger player. (plus, the CCA). We also focused little on transportation in the last report. An action plan is a good idea.

The DNV GL Scope of Work to the support this project was approved. The scope proposed a framework for High level activities. (Please see presentation)

In terms of outreach already completed: there was a presentation to RICAPS a few months ago, then a presentation to the C/CAG board, and presentation to RICAPS at PCE again last month. The RICAPS presentation was structured so PCE outlined strategy to meet goals such as demand response or electrification, and PCE could outline objectives important to PCE and what their timeline looks like.

This project is an opportunity to bring that all together but we've got a long way to go.

Nagel - will this include WWTP and SLR, as well as portable water and energy generation?

Springer – Energy water nexus is to be included, but Adaptation is very broad. In terms of SPR and flooding, etc., there's another CCAG committee working on that. But we could and probably should include threats to infrastructure and possible energy implications, such as relocating WWTPs.

Kannan – Has energy resilience come up?
Springer – Microgrids are included.
Derwin – So when is the launch meeting, the first of eight?
Springer – Tentatively July 26th
Maryanne – First meeting will be the both stakeholder groups, following meetings will be separate.
Gupta – It may not be related but I see some related issues with SLR, namely given water quality control plants, which focus on gravity control. I see potential to focus on how flow will be maintained. Longer team project but hugely important given land requirements and technical complexity.
Carr – There's a "living levy" project which protects WWTP from SLR and provides storm and flood protection.

7. Report on State Energy Efficiency Collaborative Forum

Kim Springer reported that the State Energy Efficiency Collaborative Forum was the previous week (SEEC), that therefore the Committee meeting is always pushed to the fourth week in June. This year there was great concern over the recent CPUC decision, which will affect SMC Energy Watch program, but that staff is still unsure how much in 2019.

An opening meeting was with PGE to be brought up to speed on potential changes, mainly caused by the CPUC's adopted higher cost effectiveness requirement, the TRC. The TRC is the equation that the CPUC used to determine cost effectiveness of EE programs. The adopted, higher, TRC will have effect on types of customers served by programs. PGE has portfolio of different programs (DI, LGP, Industrial, residential) which must meet TRC requirement.

CY 2019 will be a transition year and there are many unknowns in terms of programs, post CY 2019. PG&E offered three possible scenarios that LGPs could consider: resource focused, non-resource focused, or hybrid, the latter being the current form of the SMCEW program.

It is expected that the LGPs will start working more closely to address challenges caused by the CPUC decision.

Springer provided a sampling of SEEC conference sessions: Regulations and Legislation Impacting Local Government Energy Programs, Partnering with Chambers of Commerce to Reach the Business Community, EE Incentive Programs: Evolving Policy Requirements and Challenges, and
Youth Engagement for Climate Action Implementation:

8. Committee Member Updates

Cormia - Foothill De Anza college district is preparing new facilities master plan. Huge insight on emissions. Emissions in 2017 were same as 1990 levels. 80% of residual energy was going to co-gens. FDCCD can reach 80% below 1990 levels by swapping out boilers. They want to commit to becoming carbon free by 2030. Not going out for bond this November, but still on that path. Urges us to think about at what point as a region do we want to make those big commitments and be a

demonstration project for the region

9. Next Meeting Date: July 18, 2018

Meeting was adjourned.