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San Mateo County
South San Francisco
Woodside

Meeting Minutes

Resource Management and Climate Protection Committee (RMCP)

Date: Wednesday, January 20, 2021 Time: 3:00 p.m.

In Attendance

Maryann Moise Derwin, Town of Portola Valley, Committee Chair* Tom Francis, BAWSCA* Diane Papan, City of San Mateo* Christine Kohl-Zaugg, Sustainable San Mateo County* Donna Colson, City of Burlingame* Doug Silverstein, Thrive Alliance, Committee Vice-Chair* Bill Chiang, PG&E* Debbie Ruddock, City of Half Moon Bay*

Sandy Wong, Executive Director, C/CAG Kim Springer, Office of Sustainability Susan Wright, Office of Sustainability John Allan, Office of Sustainability Alexandria Gallizioli, Office of Sustainability Rinaldo Veseliza, Case for Good Vicki Sherman, Redwood City Carol Steinfeld Michael Barber, County Supervisor Pine's Office Charles Ice, County Environmental Health

Not in Attendance:

Don Horsley, San Mateo County Supervisor* Ortensia Lopez, El Concilio* Drew Combs, Town of Menlo Park* Rick DeGolia, Town of Atherton* *Committee Member

1. Roll Call – Introductions

Kim Springer announced that Debbie Ruddock, Vice Mayor of Half Moon Bay will be joining the committee and will be introducing herself towards the end of the meeting.

2. Public Comment

Rinaldo Veseliza introduced himself to the committee and expressed his interest in local

wastewater treatment and capture.

3. Action: Approval of Minutes from November 18, 2020 RMCP Committee meeting

Motion to Approve – Committee Member Tom Francis Second – Committee Member Diane Papan

All present approved. Motion Passed. Committee Member Debbie Ruddock not present for vote.

4. Information: Results of Presidio Graduate School-led Single-family Home Electrification Systems Mapping Project (Susan Wright, County Office of Sustainability)

Susan Wright provided a follow up to her presentation to the RMCP Committee in November on her work with Presidio Graduate School and BayREN to lead a systems mapping effort for single-family home electrification.

Since November, the project partners have held two focus groups with homeowners and contractors. The focus groups revealed interesting information and preferences such as the fact that contractors are mainly interested in hot water heaters and homeowners, most of which would be considered early adopters, expressed interest in new rebates and incentives as well as simplified financing.

Interesting ideas for programs such as group purchasing, and contractor networks emerged from these discussions. On the policy side, there was a call from contractors to standardize and simplify permitting. Ideas such as special utility rates for all-electric homes and bans on natural gas were also discussed.

Susan went on to provide an overview of the second workshop. Throughout their discussions, several "interventions" were discussed as methods of promoting home electrification. The four interventions that rose to the top were instant rebates, a "cash for clunkers" rebate to retire old equipment, public/private financing instruments, and streamlined permitting. Other top ideas were development of planning tools for electrification projects, education for building departments and an emergency water heater loaner program.

Questions/Comments:

Bill Chiang: Some communities have an ordinance in place that require undergrounding of new electrical facilities. This could apply to electrification projects that need an upgraded service. It may be in the best interest of the cities to carve out exemptions for this type of project.

Maryann Moise Derwin: The topic of undergrounding utilities came up recently at a town planning commission meeting. We may be looking at solutions to this issue soon.

Next steps for the project include a written final report for the BayREN project and sharing out the findings. Following the initial report, there is funding available for case studies which Kim Springer will talk about next.

5. Information: Presentation draft criteria for selection of approximately ten homes for electrification case studies (Kim Springer, Committee staff)

Kim Springer presented on the next phase of the BayREN electrification systems mapping effort. ABAG, through the BayREN program will fund \$50k for these home electrification case studies. These studies will provide a better understanding of the cost implications of these upgrades and will include cost estimates, considerations, challenges and opportunities for individual electrification upgrades and whole-home efforts. This also includes solar, battery back-up and EV considerations. In developing the criteria for selection of existing homes to be included, Springer would like the RMCP committee's input on Proposed Criteria. Proposed criteria include age of home, location, existing equipment/panel capacity, style of home and size of home

Questions/Comments:

Bill Chiang: For mobile homes, many of them are on master meters which would make things very difficult. It would be best to find a mobile home park without a master meter. Another consideration is that targeting a home in a disadvantaged community could raise their utility bill and they may be unable to pay

Kim Springer: Clarifying that we aren't installing any upgrades, this is more of a planning effort to establish pricing and level of effort.

Vicki Sherman: Should there be a consideration for homes with ADUs as well? *Bill Chiang:* The ADU should have a separate address and meter if built correctly.

Tom Francis: Should topography be considered as well? Some homes on hillsides may make upgrades more difficult

Kim Springer: That makes sense especially related to solar.

Susan Wright: Specific equipment location may also be a consideration.

Christine Kohl-Zaugg: Would like to include occupancy levels as a criterion (small vs large families) and for age of home, we should consider remodels versus original builds.

6. Information: Presentation on Water Agency Urban Water Management Plans and Alternative Water Supply Projects Currently in Planning with the SFPUC (Tom Francis, BAWSCA)

Committee Member Tom Francis provided a presentation on Urban Water Management Plans (UWMP), beginning with the history of UWMPs. The UWMP Act of 1983 required long term planning for all major water suppliers (more than 3,000 customers or 3,000-acre feet/year). In 2010 SBx7-7 required water suppliers to increase water use efficiency 20% by 2020.

Christine Kohl-Zaugg: What is the baseline year for these goals? *Tom Francis*: Water Year 2010

In 2015, new requirements for recycled water, consideration for water shortages and an optional energy intensity analysis were adopted. The State of California updates UWMP guidelines every 5 years and the 2020 requirements add reporting for the 20% use reduction and water loss reductions. New requirements include a layperson's description of Water Supply Reliability, Water Shortage Contingency Plans, groundwater supply coordination and an energy intensity analysis.

Tom went on to describe the contents of an UWMP. The plan includes an introduction and overview, an overview of UWMP preparation and adoption, a system description, water use characterization, and compliance with SBx7-7 baseline and targets. Additionally, a demand focused section includes water supply characterization, water service reliability and drought risk assessment, water shortage contingency plans, demand management measures and plan adoption, submittal and implementation.

All these individual pieces come together to tell a water agencies story and allows for planning to ensure that supply is reliable and meet demands. UWMPs allow for water supply assessments, eligibility for state grants and loans and are public documents that can

be referenced by others.

BAWSCA helps water agencies prepare their UWMPs by providing information on the drought reductions/supply allocation process, changes to/considerations of the water supply agreement, the reliability of the regional water system, water resource planning efforts and the impacts of climate change.

Tom's presentation included an overview of state-level projects and future water-supply projects to improve service reliability here in the Bay Area, including the Daly City Recycled Water Expansion project among many others in the region and state.

Tom included an update on the schedule for updating and adopting an UWMP. The process includes a public comment period ahead of an adoption hearing in June 2021. Each of the 16 agencies in San Mateo County will be putting these plans together over the coming year and there is opportunity to participate now.

Questions/Comments:

Donna Colson: What happens when future Regional Housing Needs Allocation exceed the available water supply?

Tom Francis: This may be a long-term concern as water supplies are constrained and there may come a time when developments can't be approved due to water availability. Brisbane is dealing with this issue right now and is looking at water transfer agreements as a way to work around this. The silver lining is that our gallons per capita has gone down in recent years which allows more people to live here on the same water supply.

7. Information: Presentation on Value of Resiliency to Support Critical Loads in Community or Site Microgrids (Craig Lewis, Clean Coalition)

Craig Lewis, Executive Director of Clean Coalition, provided a presentation on the value of resilience and their methodology for prioritizing value of individual loads at a facility. Clean Coalition is a non-profit that seeks to accelerate the transition to renewable energy and a modern grid.

Craig described the VOR123 method which breaks down the value of resilience into 3 tiers. Tier 1 loads are critical loads that are of utmost importance. They account for about 10% of total load and people should be willing to pay 3x the utility cost to keep those loads powered. Tier 2 loads are less critical but still a priority and account for about 15% of the total load and should be kept on for 80% of the time. The value of a Tier 2 load is 1.5x the utility cost. Tier 3 loads are discretionary and should be kept on for 25% of the time.

Craig provided an example by describing tiered loads in an average home. He described a fridge as being Tier 1 while internet, phone and a few lights would be Tier 2. Everything else is non-essential and therefore part of Tier 3.

Craig discussed the function of diesel generators and how they only supply Tier 1 and Tier 2 loads for a small amount of time and require additional fuel on a regular basis. On the natural gas side of things, resiliency of the electrical grid is far superior. In the event of an earthquake or similar disaster, electricity can be restored 30x faster than natural gas infrastructure. Clean Coalition has settled on a 25% premium figure for the value of resiliency after conducting numerous analytical approaches.

Craig went on to describe a case study in the Santa Barbara region known as the Goleta Load Pocket (GLP) which has a single interconnection to the state grid. The 40-mile transmission line goes through an area prone to fires, earthquakes and other natural disasters. The GLP spans 70 miles and would require 200MW of solar and 400MW of storage to achieve full resiliency. The solar needs amount to 7% of total available rooftop area installed with PV panels. Critical loads such as fire stations, airports, and emergency shelters at UCSB and schools are excellent opportunities for a community microgrid. In particular, a project at the Santa Barbara Unified School District (SBUSD) will improve resiliency and save the school district millions of dollars.

Questions/Comments:

Carol Steinfeld: How was the SBUSD funded?

Craig Lewis: The 3rd party hired to deploy and operate the system are covering the upfront costs and will make money back by selling energy back to the school at a price that's lower than SoCal Edison rates.

Doug Silverstein: How should we consider PV rollout locally? Should be striving for the same 7% goal as Santa Barbara?

Craig Lewis: This is generally a good benchmark, but needs will differ by community.

8. Committee Member Updates

Committee Member Doug Silverstein announced that Thrive Alliance will be hosting an online workshop called Bikes, Trains and (Electric) Automobiles on February 4th.

Committee Member Christine Kohl-Zaugg will be sending updates through Kim Springer via e-mail.

New Committee Member Debbie Ruddock of Half Moon Bay was introduced.

9. Next Scheduled Meeting February 17, 2021