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Agenda

Resource Management and Climate Protection Committee (RMCP)

Date: Wednesday, November 28, 2018 **Time:** 2:00 p.m. to 4:00 p.m.

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

- 1. Introductions
- 2. Public Comment
- 3. Approval of Minutes from October 17, 2018 RMCP Committee meeting (Kim Springer Committee Staff) Action
- 4. Update and discussion on San Mateo County Energy Strategy 2025 stakeholder meetings and content development

(Kim Springer – Committee Staff)

Presentation/Discussion

5. Receive a presentation on the Draft San Mateo County Transportation Programs Climate Impact Report

(Betty Seto – DNV GL)

Presentation/Discussion

6. Update on 2050 Partners, Inc. Job Order Contracting feasibility study

(Kim Springer – Committee Staff)

Presentation/Discussion

7. Review and approval of RMCP Committee meeting dates for calendar year 2019

(Kim Springer – Committee Staff)

Action

- 8. Committee Member Updates
- 9. Next Meeting Date: December 19, 2018 or January 16, 2018 To Be Determined

PUBLIC NOTICING: All notices of C/CAG regular Board meetings, standing committee meetings, and special meetings will be posted at the San Mateo County Transit District Office, 1250 San Carlos Ave., San Carlos, CA, and on C/CAG's website at: http://www.ccag.ca.gov.

PUBLIC RECORDS: Public records that relate to any item on the open session agenda for a regular Board meeting, standing committee meeting, or special meeting are available for public inspection. Those public records that are distributed less than 72 hours prior to a regular Board meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members, of the Board. The Board has designated the City/County Association of Governments of San Mateo County (C/CAG), located at 555 County Center, 5th Floor, Redwood City, CA 94063, for the purpose of making public records available for inspection. Such public records are also available on C/CAG's website at: http://www.ccag.ca.gov.

PUBLIC PARTICIPATION: Public comment is limited to two minutes per speaker. Persons with disabilities who require auxiliary aids or services in attending and participating in this meeting should contact Mima Guilles at (650) 599-1406, five working days prior to the meeting date.

If you have any questions about this agenda, please contact C/CAG staff:

Executive Director: Sandy Wong (650) 599-1409 RMCP Committee Staff: Kim Springer (650) 599-1412

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Resource Management and Climate Protection Committee (RMCP)

Minutes of October 17, 2018 Meeting

In Attendance:

Deborah Gordon, Committee Chair, Woodside Town Council* Ortensia Lopez, El Concilio of San Mateo County* Bill Chiang, PG&E* Maryann Moise Derwin, Committee Vice Chair, Mayor Portola Valley* Rick DeGolia, Town of Atherton* Pradeep Gupta, South San Francisco City Council* Diane Papan, Councilmember, San Mateo* Beth Bahtnagar, SSMC Board Member* Adrianne Carr, BAWSCA* Sandy Wong, C/CAG Kim Springer, County Office of Sustainability Danielle Lee, Office of Sustainability Doug Silverstein, Public Mark Esguerra, PG&E Eunice Garcia, PG&E John Allan, County Office of Sustainability

Not in attendance:

Dave Pine, County Supervisor*
Rick DeGolia, Town of Atherton*
Robert Cormia, Professor Foothill-DeAnza*
Don Horsley, County Supervisor*
* Committee Member (voting)

1. Introductions

2. Public Comment

Doug Silverstein introduced himself, his impressions of the great work being done in San Mateo County by organizations such as C/CAG and shared his connection to the many nonprofits in San Mateo County with the hole that he would be able to work more closely with the committee.

3. Approval of Minutes from June 27, 2018 and July 18, 2018 RMCP Committee meetings Gupta/ DeGolia - passed

4. Presentation by PG&E on electric grid integration and innovation

Mark Esguerra presented on PG&E's work related to integration of clean technologies to support climate action, and new processes to enable action. He reviewed that state goals and discussed the opportunity that a rapid change in technology, EVs, batteries, etc., and the increased customer choice for electing renewables and technologies. Esguerra showed the growth of EV, solar installations, etc. Esquerra shared numbers of the number of transformers and interconnections, etc., in the PG&E territory and the need to make sure these systems are safe and reliable.

He next discussed the work PG&E has been doing to streamline the process of interconnecting solar and other systems. The rate of applications for these types of applications are running at about 5000 per month. This is for solar. The same if becoming true for EV charging infrastructure. PG&E has also developed maps of grid hosting capacity and these are public with a registration process online at PG&E. The maps are color coded in terms of hosting capacity, whether it be limited by site use of site generation.

The maps and other tools being used by PG&E to reduce cost of grid upgrades is tied to avoid "wiring" changes, being called non-wire solutions. There are more opportunities for PG&E to collaborate with counties to do more to coordinate non-wire solutions. The can provide a 24/7 depiction of the grid, but not all that data is yet available for the public, but the intention is that it will be. Community solar is being tracked separately from 5000-6000 applications for rooftop, and this is a follow-up item to see what the tracking for "community" solar looks like.

The presentation turned to EV charging station and Bill Chiang shared that PG&E has an existing program for installing EV charging stations in banks of ten or more that the costs are approximately 80% covered. Esguerra also mentioned that there are efforts with EV manufacturers to allow charging infrastructure to pull electricity from the EV batteries. At this point it is experimental, but it's being explored. In terms of timing for charging, car manufacturers, such as BMW can send a telematic signal to vehicles to align with grid needs, to address duck curve issues. This program is expanding to 350 BMW vehicles soon. These kinds of demand response programs for vehicles are slowly expanding. PG&E is also partnering on a EV school bus pilot, which works well with timing for vehicle charging.

PG&E is also working with communities on microgrid projects in California, in northern California at an airport, on an Indian reservation, and on Angel Island. These kinds of project are being explored from a resilience and business model approach.

There were so many questions and interest from the Committee that it was requested that Mark, Eunice, a PG&E employee Alex Padilla, and of course Bill Chiang be invited for another meeting to explore more opportunities for PG&E and county agencies to collaborate.

PG&E's presentation is posted on the C/CAG RMCP website here: http://ccag.ca.gov/committees/resource-management-and-climate-protection-committee/

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

Adrianne Carr provided a water supply update and an update on some state actions underway. The normal storage is running 84% full. Typical is about 80% full, and the higher levels are due to continued water conservation on the part of consumers. The new water year is just beginning, and it's being projected to be an el nino year and wet, but it's too early to be sure. Water delivery is still tracking pretty flat to the past few years, not back up to predrought levels.

Carr continued, sharing the state discussions on water allocations. With the existing proposal, which BAWSCA has commented on, there would potentially be significant cuts in water supply, even as far as causing a need for rationing in dry years, as much as over 50%. The history is that we have shortages one in every 10 years, but with the current plan proposed, this could happen three for four years out of 10. This would look like rationing and moratoriums in communities. An example of this is East Palo Alto, until they purchased additional allocations.

SFPUC and a few other agencies submitted an alternative plan, which would provide further benefits for fish habitat while having less effect on water supply for communities. With multiple proposals, there are settlement discussions underway. The balance is habitat restoration, agriculture, and drinking water supply. State Senator, Jerry Hill, attended a BAWSCA Board meeting and suggested that public outreach be considered on the topic to help the public understand the circumstances. BAWSCA is continuing engagement with stakeholders and member agencies are being updated, with the hopes that the voluntary settlement agreement will be considered. BAWSCA will continue to with state officials and agencies to write letters in support of the approach their agencies most support.

BAWSCA will provide an update on the outcome of efforts at a future meeting.

BAWSCA's presentation is posted on the C/CAG RMCP website here: http://ccag.ca.gov/committees/resource-management-and-climate-protection-committee/

6. Update and discussion on San Mateo County Energy Strategy 2025 stakeholder meetings and content development

Kim Springer introduces John Allan who provided an update on progress with stakeholders for the update to the San Mateo County Energy and Water Strategy. Allan shared the organizing framework and the other elements as the project moved towards the eventual draft document, which will be completed by the end of December. The elements include a set of icons to identify the partner or agency that will help move the action forward. The goals-strategies-actions framework was quickly reviewed, and comments were provided by the Committee.

Committee comments included:

- be sure to include more on equity and how to represent communities of need in the document and actions for both energy and water
- the breadth of the roadmap is significant but maybe it needs to be more prioritized
- actions should leverage PCE financial standing

- modernizing the grid is central to success since the exiting controls and infrastructure are 50+ years old so the questions is where to invest in the grid
- grid vulnerabilities are different now than years ago so we may need to think about where systems are aging out
- be sure to leverage community nonprofits to help move the community forward, there is incredible opportunity there

The staff presentation on this item is posted on the C/CAG RMCP website here: http://ccag.ca.gov/committees/resource-management-and-climate-protection-committee/

7. Presentation on 2050 Partners, Inc. Job Order Contracting feasibility study scope of work

Kim Springer provided a short presentation on Job Order Contracting (JOC) and how a city might leverage this procurement tool. C/CAG and the County have contracted with 2050 Partners, Inc., with local government partnership fund to complete a feasibility study by year end. The study will include what would be required of a centrally-run cooperative for the cities in San Mateo County.

The Committee suggested that it would important to consider any downsides of this approach, and that it not provide a staff a pathway to implementing projects without council approvals.

8. Update on C/CAG – PG&E 2019 contract and program development for the San Mateo County Energy Watch

Kim Springer provided an update on the challenges and proposed program for the SMCEW 2019 program year, including changes in budget and how it will shape the Program. The SMCEW may become a "non-resource lead local partner", which is a new term staff just received from PG&E in the last week or so. It may be, in 2020 and beyond, that the Program will be a non-resource

9. Committee Member Updates

Beth Bhatnagar – SSMC has an indicators release event being held at Oracle and she provided flyers for attendees.

10. Next Meeting Date: November 28, 2018

C/CAG AGENDA REPORT

Date: November 28, 2018

To: Resource Management and Climate Protection Committee

From: Kim Springer, RMCP Committee Staff

Subject: Update and discussion on San Mateo County Energy Strategy 2025 stakeholder

meetings and content development

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

RECOMMENDATION

Receive an update and discussion on San Mateo County Energy Strategy 2025 stakeholder meetings and content development.

FISCAL IMPACT

Staff time is paid for by funding under the C/CAG – PG&E Local Government Partnership (LGP) agreement and from Congestion Relief Funds for staffing of the RMCP Committee.

BACKGROUND/DISCUSSION

At the February 21, 2018 RMCP Committee meeting, the Committee decided to move forward with an update to the San Mateo County Energy Strategy 2012 document, and there was discussion that the cycle of this and future updates may need to be more frequent (less than 10 years).

At the March 21, 2018 RMCP Committee meeting, staff presented a draft workplan and time line for the San Mateo County Energy Strategy 2025 update project and on April 18, 2018 RCMP Committee meeting, staff presented two documents for review and discussion, a list of Guiding Principles for the project, and a comparison of the topics covered in the original energy strategy to what's proposed for the 2025 version. That document also included a list of proposed stakeholders. Both documents have been updated, based on feedback received at the meeting and are provided as attachments to this staff report. At the June 27, 2017 RMCP Committee meeting, staff presented the scope of work proposed for consultant DNV GL.

At the October 17, 2018 Committee meeting, staff shared a rough draft of the organizing framework and received comments back from the Committee. Since the October meeting, staff has held an additional stakeholder meeting, and the next and last stakeholder meeting is scheduled for December 12.

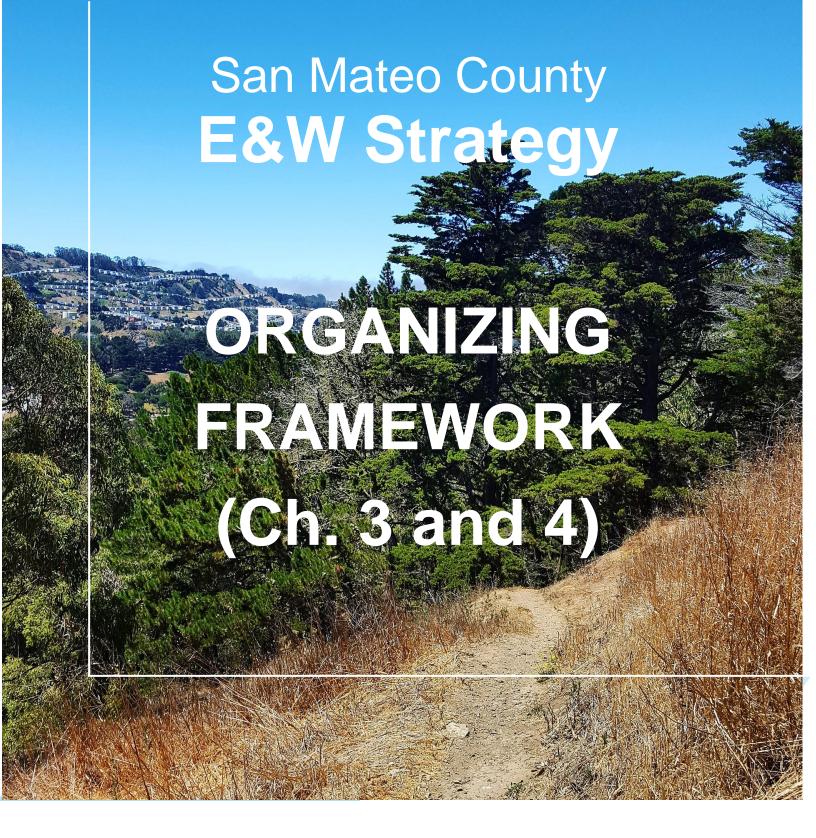
This month, staff will update the Committee on progress since October, namely Goal 3 for Energy and Water, which was addressed at the October meeting, for the updated draft organizing

framework (attached to this staff report) for the San Mateo County Energy Strategy 2025 document.

Comments received form the RMCP Committee in October have not been incorporated into the organizing framework yet. These comments will be shared with and discussed among the stakeholders to get their feedback on how best to address them at the December 12, 2018 stakeholder meeting.

ATTACHMENTS

Draft Organizing Framework – Energy and Water Strategy 2025



DRAFT

November 2018



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Executive Summary

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1. Introduction





2. Background and Context



3. Opportunities in a Changing Energy Landscape

[Add intro text]

Goal E1. Optimize and reduce

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

	Actions	SMC	City	PCE	Other
1.	Provide financial and technical resources, and workforce development trainings for installers and building owners/operators to learn to analyze building energy use through a combination of measures.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	★		PG&E RCD
2.	Pursue development of local benchmarking and energy use disclosure ordinances, with County support for cities to develop policies and set EE goals.				
3.	Leverage utility and PCE program incentives for energy efficiency and demand side management, including monitoring based commissioning programs and energy (and water) audits of agricultural and industrial operations.	* %	*	\$	\$ RCD
4.	Develop programs which encourage retrofits and smart home, real-time monitoring including submetering, along with passive (efficiency) design	~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$	

	features for major remodels.			
5.	Engage real estate and property management to address split-incentive issues, including developing tenant improvement guidelines and green lease contracting templates.	~~		
6.	Leverage public-private partnerships and multisector resources support efforts like innovative pilots including a smart/efficient building design competitions. Secure partnerships with partners such as Nest, Mynt, OhmConnect.	₩ 00	©00 (**)	\$

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

	Actions	SMC	City	PCE	Other
1.	Support regional approaches to promoting reach codes for new construction to go beyond state ZNE goals, including templates, pilots and case studies focusing on Net Zero Carbon (NZC), also known as all-electric. Partner with utilities around all electric infrastructure planning.	₹	***************************************	₩ •	PG&E
2.	Adopt local reach codes, streamline permitting and other green building policies focusing on Net Zero Carbon, beyond state ZNE codes. County to provide templates for NZC reach codes and outreach materials.			*	
3.	Aggressively promote all-electric new buildings including accessory dwelling units and funding for net zero carbon pilots.	4 00		(\$) (\$) (\$)	\$
4.	Increase customer education and training for the trades around net zero carbon buildings, including efficiency, heat-pump (all-electric) heating/cooling systems, on-site renewables and other distributed energy resources.	كن	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$	Regional
5.	Integrate resilience assessments, upcoming AB 262 assessment of project materials global warming potential, and energy audits for planning with new developments to ensure longevity, including consideration of future climate impacts (increasing heat, flooding, etc).	كن	₹	★)00	\$

Strategy E1.3: Leverage new technologies related to existing building electrification such as heat pump water and space Heater for water heating efficiency and reduced emissions

	Actions	SMC	City	PCE	Other
1.	Create Heat Pump Water Heater (HPWH) program – SMC supports cities and PCE to create HPWH education, training and outreach.	₽ %	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$	
2.	Create public private partnership around mid- stream incentives and/or group buy of HPWH (similar to Sunshares). Work with utility or PCE to set up on-bill or easy financing solution.	₩ <u></u>	%	(\$)	Regional & State
3.	With utility and PCE, explore opportunity to pilot a fleet of grid-enabled heat pump water heaters in multi-family new construction or large scale retrofit.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Developer, Manufact.
4.	Provide/Promote workforce development opportunities related to building electrification, including cross-training of plumbing and electrical trades; engage manufacturers to provide trainings for all electric technologies (including stoves, heaters, etc), and educational resources for inspectors/ permit/ plan checkers.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ر
5.	Develop model reach codes and incentives for all electric building measures and streamline permitting processes for heat pump technology.			\$	4 %

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

	Actions	SMC	City	PCE	Other
1.	Analyze buildings for demand response and load shaping opportunities; considering rolling out alongside Energy Benchmarking program launch.		© 0		
2.	Promote permanent shifts of load to times when renewable energy is plentiful through energy and thermal storage, load timing/controls, precooling/pre-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	*		Utility

	heating and other measures				
3.	Promote automated demand response solutions/technologies to curtail customer demand (e.g., AC load control, etc)	*	*	₩ 000	

Goal E2. Decarbonize and shift to clean energy

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

	Actions	SMC	City	PCE	
					Other
1.	Create partnerships, awareness campaigns and incentives to maximize opportunities for local rooftop PV and carport PV systems combined with				
	energy storage for residential and commercial buildings. For the agricultural sector, promote solar-powered pumps (for water).	4 %	*	(\$)	\$ RCD
	powered pumps (for water).				ROD
2.	Enhance building reach codes to support community scale smart solar projects with energy storage, and multifamily dwelling units electric vehicle charging infrastructure.				
3.	Promote ECO100 for all local government municipal operations and throughout the community. Municipalities also work to support direct access program to reach 100% renewables, for example, setting up a regional PPA.	♣ %	₩	©°	***
4.	Research seasonal and time dependent impacts on grid	₩ —			
5.	Plan for regional or municipal emergency centers to site battery storage.				

Strategy E2.2: Electrify transportation

	Actions	SMC	City	PCE	
					Other
1.	Initially focus on fleet electrification opportunities	2002	2002	. 	(¢)
	(e.g., school buses, transit, municipal fleets, etc).	40	40	7	\bigcirc
	Work with TDMs, transportation network companies	_			
	to electrify commuter fleets. Provide fleet manager				

	trainings.			
2.	Accelerate adoption of electric vehicles in the community: Provide incentives and expand bulk buy opportunities. Promote through municipal channels as well as ride and drive events	▼ %	©000	\$ \$ State
3.	State and regional partnerships to promote and incentivize EVs, and include low emission biofuel for existing vehicles, and off-road equipment alternatives, including electric tractors.	₹	₩ <u></u>	PG&E

Strategy E2.3: Increase EV charging infrastructure countywide

	Actions	SMC	City	PCE	Other
1.	Develop an organized charging infrastructure strategy that incorporates expansion throughout the region including curbside, workplace, fast chargers and at home charging. Include tools for assessment and policy templates				
2.	Partner with utilities and technology providers to implement EV2Grid strategies for load shaping and resilience.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
3.	Provide model charging rates policies and information to cities.			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
4	Develop model ordinances and policies for EVCI in multi-unit dwellings and low income communities				

Strategy E2.4: Participate in Building Electrification Advocacy

	Actions	SMC	City	PCE	Other
1.	Support building electrification through regional and statewide advocacy	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NGOs
2.	Research gas line issues, gas data and policy pathways to expose the facts on methane leaks and dangers, and true costs				

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

	Actions	SMC	City	PCE	Other
1.	Explore waste-to-energy (including food waste-to-energy and landfill methane capture) and pyrolysis of unrecyclable plastic waste.		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~	
2.	Explore opportunities for renewable gas, including biogas, digester gas and landfill gas, and more efficient district energy systems.			*	
4.	Study wind, tidal and other renewables in region			3	d.
5.	Develop a partnership program or regional collaboration for R&D, investments and opportunities in local alternative/clean energy businesses	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	₩ ————————————————————————————————————
6.	Develop and implement Carbon Farm plans on coast side for carbon sequestration, including agricultural waste and food waste (compost).				RCD CD CD

Goal E3. Modernize the grid for resilience and decarbonization

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

	Actions	SMC	City	PCE	Other
1.	Streamline permit processes (city, county, state, utility) for new DER technologies including for storage and electric vehicle charging infrastructure.				PG&E
2.	Establish pilot projects of microgrids at critical facilities across San Mateo County (e.g., schools, hopsitals, fire, police), prioritizing opportunities to serve low-income and vulnerable populations.	~~	Public works		
3.	Advocate to address regulatory barriers to cost- effective multiple use applications for solar+storage, microgrid and other DER project				PG&E

	opportunities.			
4	Integrate DER measures into existing utilty programs providing financial and technical assistance, including on-bill repayment.	~~		PG&E

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

	Actions	SMC	City	PCE	Other
1.	Leveraging existing network across San Mateo County (e.g., County Office of Health & Human Services, energy financing, community-based organization) to target new energy programs and workforce development opportunities for communities of concern.		₩ ₩	3	NGO
2.	Identify core resources and local San Mateo County barriers to energy efficiency, microgrid, electric vehicle and DER project opportunities.	0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NGO
3.	Partner with San Mateo Community College District, PCE, PG&E and other organizations to develop new training and workforce development programs.	~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
4.	Ensure that all incentive programs include an equity component (e.g., income-related adders for incentives) and assess opportunities to better channel resources to communities of concern.		كن		

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

	Actions	SMC	City	PCE	other
1.	Develop an integrated map of DER project feasibility parameters on easy to access shared platform (e.g., with multiple information layers related to solar potential, hosting capacity, and other grid analyses).			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
2.	Utilize utility distribution system capacity maps to prioritize microgrid, solar+storage and other DER project opportunities	4 %	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4 %	PG&E NGO

3.	Develop localized metered data (AMI interval data) to understand existing conditions for energy efficiency, demand response and resilience.	**		PG&E
4.	Develop utility partnership to push strategic planning around electrification and grid modernization, including prioritization of improvements (in lieu of new 50-year gas distribution strategy)	%		PG&E CPUC

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

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



4. Realizing the Vision of One Water

[Add intro text]

4.1 Goal W1. Enhanced water use efficiency

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

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Promote third-party and self-auditng approaches to identifying water efficiency opportunities including agricultural greenhouse efficiency improvements.	RCD	© 000		*	₹%
2.	Implement and evaluate cost-effective commercial/industrial water efficiency measures	4 %	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		*	RCD
3.	Evaluate and design programs for remaining residential water efficiency opportunities	4)00	\$	(\$)	**************************************	
4.	Work with city inspectors to ensure enforcement of state requirements for water efficient fixtures and appliances for new buildings and retrofits		★ %			
5.	Update mandatory ordinances for water efficiency above state requirements					

Strategy W1.2: Expand programs for outdoor water use efficiency

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Provide standardized landscape conversion designs (e.g., Lawn-Be-Gone programs) for residential customers	RCD RCD	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		*	

2.	Provide efficient irrigation standards to assist commercial property owners with landscape decisions	A	كن	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4 %	
3.	Promote Bay Friendly Landscape Guidelines and other resources for new buildings and landscape replacement	₹	*	\$	*	
4.	Expand programs to educate landscape professionals on technologies and strategies for water conservation	A	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	## T	A %	
5.	Promote agriculture irrigation efficiency for row crop and other irrigated agriculture	RCD				RCD

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

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Support advanced metering infrastructure (AMI) and smart meters for water	*	7		**************************************	RCD
2.	Develop new programs to provide real-time water consumption data to residents and business owners to influence behavioral usage					
3.	Support pilots for utilizing app-enabled home water monitoring approaches		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
4.	Encourage submetering in new construction	*	**************************************	© 000		
5.	Fund and develop leak detection at the building level		\$	\$		

4.2 Goal W2. Alternative sources of water

Strategy W2.1: Encourage water reuse

		Actions	SMC	BAWSCA	Retailer	City	Other
ſ	1.	Increase education and outreach related to		1			NGO
		potable and non-potable reuse opportunities.					

		RCD			
2.	Support development of on-site non-potable reuse regulatory/implementation framework, including model ordinances for new construction		★ %		
3.	Provide additional incentives and resources for non-potable reuse (e.g., greywater, rainwater, stormwater) for landscape irrigation, and tailwater recycling for greenhouses, including both demonstration projects and trainings	\$	\$	\$ © 0000	RCD \$

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

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Promote use of recycled water in pre-plumbing and landscape			*	Å	
2.	Bring awareness and outreach for potable reuse (opportunity to leverage local NGOs)	A	A %00			
3.	Promote potable reuse pilot projects and advancement of regional potable reuse projects.		*	A)		

Strategy W2.3: Continue to explore new innovative technologies for alternative water

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

4.3 **Goal W3. Systemic improvements**

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

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Support awareness and community outreach related to water supply, wastewater treatment, flood and stormwater management and impacts of climate change	*	©.00	*	*	RCD SWCB NGO
2.	Promote school programs focused on water efficiency and conservation	SMCOE	*	₩ ,%		NGO
3.	Expand green infrastructure for stormwater management including permeable pavement, vegetated stormwater features, streetscape improvements and incorporating stormwater/flood conveyance into city planning	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			RCD

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

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

Strategy W3.3: Encourage innovation for water utilities

	Actions	SMC	BAWSCA	Retailer	City	Other
1.	Assess water rates and ensure true cost of water as part of stakeholder engagement			<u>*************************************</u>		
2.	Improve leak detection on utility side of the meter					

3.	Explore opportunities for open data related to water consumption to spur innovation in water efficiency programs and management practices			كن	RCD
4.	Utilize real-time water use data for machine learning, including other data sources such as inspection records		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		



5. Looking Ahead

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6. Conclusion



Acknowledgements

C/CAG AGENDA REPORT

Date: November 28, 2018

To: Resource Management and Climate Protection (RMCP) Committee

From: Kim Springer, RMCP Committee Staff

Subject: Receive a presentation on the Draft San Mateo County Transportation Programs

Climate Impact Report

(For further information or questions, contact John Hoang at 650-363-4105 or Kim

Springer at 650-599-1412)

RECOMMENDATION

That the RMCP Committee receives a presentation on the Draft San Mateo County Transportation Programs Climate Impact Report.

FISCAL IMPACT

\$35,000

SOURCE OF FUNDS

Congestion Relief Funds.

BACKGROUND

The challenge of climate change is not new and addressing it has long been a priority for San Mateo County. City/County Association of Governments of San Mateo County (C/CAG) is responsible for administering many state-mandated programs related to transportation, air quality, and federal and state transportation funding programs in San Mateo County.

This Transportation Programs Climate Impact Report identifies C/CAG's long-range planning documents and provides policy and program direction for all transportation plans in the county to meet the State of California's climate goal of 40% below 1990 levels by 2030. Specifically, the strategies identified in this document demonstrate how C/CAG's recently-adopted San Mateo Countywide Transportation Plan 2040 (SMCTP 2040) is anticipated to reduce GHG emissions countywide.

The SMCTP 2040 is intended to articulate clear transportation planning objectives and policies and to promote consistency and compatibility among all transportation plans and programs within the county. By doing so, SMCTP 2040 supports an integrated, system-wide approach to transportation planning that gives proper consideration to the countywide transportation network as a whole, not just in its constituent parts. Through its countywide initiatives, C/CAG is supporting its member jurisdictions to meet city-level climate action commitments.

This is the first presentation of the Report to the RMCP Committee; however it has been presented to the CMEQ Committee and the Congestion Management Program TAC. The consultant supporting C/CAG, DNV GL, is also supporting cities climate action plan and emission inventory development, under the San Mateo County Energy Watch Program, and this Report is partially funded under that program. The Report, which is available for downloading at the C/CAG website indicated below, will be presented at the meeting.

The content of the Report is pertinent to the Committee because of the types of energy-transportation needs outlines in a broader transportation perspective of the County in order to meet climate goals.

ATTACHMENTS

- Draft San Mateo County Transportation Programs Climate Impact Report (*The document will be available for download at the C/CAG website at:* http://ccag.ca.gov/committees/resource-management-and-climate-protection-committee/)

C/CAG AGENDA REPORT

Date: November 28, 2018

To: Resource Management and Climate Protection Committee

From: Kim Springer, RMCP Committee Staff

Subject: Update on 2050 Partners, Inc. Job Order Contracting feasibility study

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

RECOMMENDATION

Receive an update on 2050 Partners, Inc. Job Order Contracting feasibility study.

FISCAL IMPACT

Funding for the feasibility study, in the amount of \$35,000, comes from the PG&E Local Government Partnership implementation funds.

BACKGROUND/DISCUSSION

The process of implementing energy efficiency measure at local government sites, requires a multi-step process that, depending on the project scope, can take between six months and two years. The follow steps are (generally) required to implement successful projects: initial project identification meeting, preliminary walkthrough, comprehensive audit, development of measure list and costs proposal, follow up meeting with site staff to review proposal and select measures to be implemented, development of project specifications, procurement of contractor to install selected measures, installation, final walkthrough and processing of incentives. One of the longest and most time-consuming steps for city staff is the three to four months required for procurement of contractors.

Job Order Contracting (JOC) is a method that can greatly reduce the time to move from specifications to installation. JOC involves establishing a list of contracting services, such as installing lighting fixtures or replacing heating and air conditioning systems, into a book of services that multiple contractors can bid on all at once, and in advance of the need for services.

At the October RMCP Committee meeting, staff shared the scope of work for this fast-moving project. Meetings with cities to assess their interest in JOC have begun. Staff will provide an update on progress on this project.

ATTACHMENTS

2050 Partners, Inc. Presentation to Cities (*The document will be available for download at the C/CAG website at:* http://ccag.ca.gov/committees/resource-management-and-climate-protection-committee/)

C/CAG AGENDA REPORT

Date: January 17, 2018

To: Resource Management and Climate Protection Committee

From: Kim Springer, Committee Staff

Subject: Review and approval of RMCP Committee meeting dates for calendar year 2019

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

RECOMMENDATION

Review and approve RMCP meeting dates for calendar year 2019

FISCAL IMPACT

None

SOURCE OF FUNDS

Funding for the RMCP Committee comes from C/CAG Congestion Relief Funds.

BACKGROUND/DISCUSSION

At the change of each calendar year, the Committee reviews and approves the meeting dates for the following calendar year. The RMCP Committee will continue to meet on third Wednesdays from 2:00 to 4:00 p.m., provided staff has sufficient business to conduct at the meeting. *Two months in the year are exceptions, when the meeting is held on the 4th Wednesday. They are June (due to an annual statewide energy forum), and November (due to Thanksgiving).

Staff may cancel a meeting or shift a meeting date with notice to the committee and the public. Meetings will continue to be held (as a preference) at the 155 Bovet Rd., San Mateo location for 2019. The optional meeting location will be at County Center in Redwood City.

The following dates are the proposed meeting dates for the RMCP Committee in 2019. The Committee will review and approve the dates for 2019. Once approved, staff will update the C/CAG RMCP Website and provide Committee members appropriate calendar appointments.

January 16

February 20

March 20

April 17

May 15

July 17

August 21

September 18

October 16

November 27 *

June 26*

December 19

ATTACHMENTS

None