SUSTAINABILITY COMMITTEE

Agenda

February 3, 2020
12:00 P.M.
651 Pine Street, Room 101, Martinez

Supervisor Federal D. Glover, Chair
Supervisor John Gioia, Vice Chair

Agenda Items:	Items may be taken out of order based on the business of the day and preference of the Committee

1. Introductions

2. Public comment on any item under the jurisdiction of the Committee and not on this agenda (speakers may be limited to three minutes).

3. **APPROVE** Record of Action from the December 9, 2019, meeting of the Sustainability Committee. (Jody London, DCD)

4. **RECEIVE REPORT** on Building Electrification and **PROVIDE DIRECTION** re: same. (Demian Hardman, DCD/Jody London, DCD)

5. **RECOMMEND SUPPORT** for the federal Green Act. (Jody London, DCD)

6. **REVIEW and ADOPT** 2020 Sustainability Commitee Discussion Schedule and 2019 Progress Report. (Jody London, DCD)

7. **REVIEW** Sustainability Staff 2020 Work Plan. (Jody London, DCD)

8. **RECEIVE REPORT** from Sustainability Commission Chair. (Howdy Goudey, Chair, or designate)

9. **RECEIVE REPORT** from Sustainability Coordinator. (Jody London, DCD)

10. The next meeting is currently scheduled for March 23, 2020.

11. Adjourn

The Sustainability Committee will provide reasonable accommodations for persons with disabilities planning to attend Sustainability Committee meetings. Contact the staff person listed below at least 72 hours before the meeting.

Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the County to a majority of members of the Sustainability Committee less than 96 hours prior to that meeting are available for public inspection at 651 Pine Street, 1st floor, during normal business hours.

Public comment may be submitted via electronic mail on agenda items at least one full work day prior to the published meeting time.

***Glossary of Acronyms, Abbreviations, and other Terms (in alphabetical order): Contra Costa County has a policy of making limited use of acronyms, abbreviations, and industry-specific language in meetings of its Board of Supervisors and Committees. Following is a list of commonly used abbreviations that may appear in presentations and written materials at meetings of the Ad Hoc Sustainability Committee:*

AB Assembly Bill
ABAG Association of Bay Area Governments
ACA Assembly Constitutional Amendment
ADA Americans with Disabilities Act of 1990
BAAQMD Bay Area Air Quality Management District
BART Bay Area Rapid Transit District
BAYREN Bay Area Regional Energy Network
BCDC Bay Conservation & Development Commission
BDCP Bay-Delta Conservation Plan
BGO Better Government Ordinance (Contra Costa County)
BOS Board of Supervisors
CALTRANS California Department of Transportation
CARB California Air Resources Board
CAO County Administrative Officer or Office
CAP Climate Action Plan
CCA Community Choice
CCTA Contra Costa Transportation Authority
CCWD Contra Costa Water District
CDBG Community Development Block Grant
CEC California Energy Commission
CEQA California Environmental Quality Act
CPUC California Public Utilities Commission
CSA County Service Area
CSAC California State Association of Counties
DCD Contra Costa CountyDept.of Conservation & Development
EBEW East Bay Energy Watch
EBMUD East Bay Municipal Utility District
EIR Environmental Impact Report (a state requirement)
EIS Environmental Impact Statement (a federal requirement)
FEMA Federal Emergency Management Agency
FTE Full Time Equivalent
FY Fiscal Year
GGRF Greenhouse Gas Reduction Funds
GHG Greenhouse Gas
GIS Geographic Information System
HOT High-Occupancy/Toll
HOV High-Occupancy-Vehicle

HSD Contra Costa County Health Services Department
IPM Integrated Pest Management
JPA/JEPA Joint (Exercise of) Powers Authority or Agreement
LAFCo Local Agency Formation Commission
LCC League of California Cities
LTMS Long-Term Management Strategy
MAC Municipal Advisory Council
MBE Minority Business Enterprise
MOA Memorandum of Agreement
MOE Maintenance of Effort
MOU Memorandum of Understanding
MTC Metropolitan Transportation Commission
NACo National Association of Counties
NEPA National Environmental Protection Act
PDA Priority Development Area
PV Photovoltaicv
PWD Contra Costa County Public Works Department
RDA Redevelopment Agency or Area
RFI Request For Information
RFP Request For Proposals
RFQ Request For Qualifications
SB Senate Bill
SBE Small Business Enterprise
SGC Strategic Growth Council
TWIC Transportation, Water, and Infrastructure Committee
U.S. EPA United States Environmental Protection Agency
VMT Vehicle Miles Travel
WBE Women-Owned Business Enterprise

For Additional Information Contact:

Jody London, Sustainability Coordinator
Phone: (925) 674-7871
Jody.London@dcd.cccounty.us

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date: 02/03/2020

Subject: APPROVE Record of Action from the December 9, 2019, meeting of the Sustainability Committee.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: Jody London, DCD **Contact:** Jody London (925)674-7871

Referral History:

County Ordinance (Better Government Ordinance 95-6, Article 25-205 [d]) requires that each County body keep a record of its meetings. Though the record need not be verbatim, it must accurately reflect the agenda and the decisions made in the meeting.

Referral Update:

Any handouts or printed copies of testimony distributed at the meeting will be attached to this meeting record. Links to the agenda and minutes will be made available at the Committee web page, http://www.contracosta.ca.gov/7029/Sustainability-Committee.

Recommendation(s)/Next Step(s):

Staff recommends approval of the attached Record of Action for the September 23, 2019, meeting of the Sustainability Committee.

Fiscal Impact (if any):

N/A

Attachments

12-09-19 Meeting Minutes

SUSTAINABILITY COMMITTEE

RECORD OF ACTION FOR December 9, 2019

Supervisor John Gioia, Chair
Supervisor Federal D. Glover, Vice Chair

Present:	Chair John Gioia Vice Chair Federal D. Glover
Staff Present:	Jason Crapo, Deputy Director, Conservation and Development; Frank DiMass, Energy Manager; Warren Lai, Deputy Director, Public Works; Lisa Chow, Office of Supervisor Mitchoff; Michael Kent, Hazardous Materials Ombudsman; Ramesh Kanzaria, Capital Projects Manager, Public Works; Joe Yee, Deputy Director, Public Works; Demian Hardman, Senior Energy Planner, Conservation and Development; Jody London, Sustainability Coordinator
Attendees:	Corinne Dutra-Roberts, Laurie Talbert, Lynda Deschambault, Maureen Brennan, Brett Wiley, Jenna Famular, Renee Zeimer, Shoshana Wechsler, Marti Roach, George Smith, Rose Jackson, Toby Cowen, Karen Perkins, Jan Warren, Linda Flower, Howdy Goudey, Charles Davidson

1. Introductions

2. Public comment on any item under the jurisdiction of the Committee and not on this agenda (speakers may be limited to three minutes).

   There was no public comment.

3. Staff recommends approval of the attached Record of Action for the September 23, 2019, meeting of the Sustainability Committee.

   The Record of Action was approved by unanimous vote.

4. RECEIVE Report on Enrolling County Facilities in MCE's Deep Green Program.

   Warren Lai, Deputy Director, Public Works, and Frank DiMassa, Energy Manager, Public Works, reviewed the options for enrolling County facilities in MCE's Deep Green (100% renewable) electricity project. The difference between the current MCE basic electricity product and Deep Green is about one cent per kilowatt hour (kwh). For all County facilities to enroll, this would increase electricity costs by about $400,000. Because a number of County facilities currently have solar or are in the process of installing solar, another option

would be to enroll only those facilities that do not have solar. This would be about $290,000. Other details of the options are described in the staff report.

During public comment, Marti Roach asked if the County's solar installations provide 100% of the building use, and suggested that because they do not, the gap should be addressed by enrolling in Deep Green. Howdy Goudey said that the County needs both solar on its facilities and Deep Green participation. He said that the one cent/kwh premium that MCE currently offers to customers who participation in the Net Energy Metering program if they have solar panels that are selling excess power back to MCE will in the future only be available to Deep Green customers. Goudey suggested savings from the solar facilities could fund County participation in Deep Green. Goudey said the Sustainability Commission has looked at other areas where the County could realize potential savings, for example, eliminating the use of disposable foodware. Rose Jackson said the County needs to move quickly and set an example for the public. Other members of the public agreed. Karen Perkins said in the long run the County should consider the cost of not doing as much as possible to combat climate change.

In discussion the Committee clarified that additional electricity costs for Deep Green participation would be borne by the County department(s) that are in the participating buildings. In some cases these costs come out of the General Fund, in others they come out of programs funded from other sources. The Committee discussed the many priorities the Board must balance, including health care, social services, justice programs. The Committee voted to recommend to the Board that the County enroll in MCE's Deep Green program those facilities that do not have and will not be receiving solar panels. The Committee also voted to review this decision in one year.

5. ACCEPT report on Employee Commute Survey and RECOMMEND ACCEPTANCE by Board of Supervisors.

Jody London, County Sustainability Coordinator, reviewed the results of the County Employee Commute Survery, which was prepared as part of the ongoing update to the County's Climate Action Plan. The survey shows that most employees drive alone and are spending 40-45 minutes on average commuting each day. Primary factors that inform current commute choices are travel time, cost, and flexibility.Two-thirds of County employees would consider alternatives to their commute, particularly telecommuting and carpools. There is also significant interest in electric vehicles and the ability to charge at County facilities.

Corinne Dutra-Roberts, Executive Director of 511 Contra Costa, which works to reduce traffic congestion, observed that the current survey results are nearly identical to the results of surveys from many years ago. Dutra-Roberts recommends the County consider more immediate actions, including an update to the telecommuting policy, which dates from 1993, job assignments closer to where employees live, and shuttle services to BART and other transit.

The Committee discussed some of the challenges it perceives with telecommuting, including that not all jobs lend themselves to telecommuting, and telecommuting policies would have to be negotiated with bargaining units. The Committee voted to forward the report to the Board for acceptance with a recommendation that the Board consider establishing a process to address how the County can reduce greenhouse gas emissions and congestion from employee commutes, and other alternatives to help the County achieve its climate goals.

6. ACCEPT the memo from the Executive Assistant to the Hazardous Materials Commission and CONSIDER adding an environmental justice seat on the County's Hazardous Materials Commission.

Michael Kent, Hazardous Materials Ombudsman, reviewed the current representation on the Hazardous Materials Commission. George Smith, from the Hazardous Materials Commission, said that last week the Commission voted its preference to replace one of the existing seats with an environmental justice seat.

The Committee discussed options for the Hazardous Materials Commission to use in defining eligibility for a new environmental justice seat. The Committee agreed the representative should be someone from an impacted community, who will be able to represent community interests. The person should not have to be an expert. The Committee forwarded to the Board of Supervisors a recommendation for the Hazardous Materials Commission to add an environmental justice seat, and that the seat be filled by a layperson from a community impacted by hazardous material facilities.

7. RECEIVE REFERRAL from Board of Supervisors to deliberate on adoption of a Climate Emergency Resolution, as recommended by the Sustainability Commission.

The Committee discussed options for structuring a climate emergency resolution. Supervisors expressed their opinion that resolutions have greater value when they identify tangible actions we can take. They cited to the recent State Executive Order N-19-19 on reducing greenhouse gas emissions and mitigating impacts of climate change in State government as an example. The Committee expressed interest in seeing the County take action on those issues where it can have the greatest impact. The Committee recognized that the County must balance priorities, it cannot invest in everything people might want at this time.

Community members offered many ideas for a climate emergency resolution. They stressed that this is an *emergency* and the County should provide bold leadership and action. Community members urged the Board include in any resolution deadlines or dates by which action can be expected. Community members expressed interest in the Board taxing the refineries located in Contra Costa County and determining how the County should plan for a situation where the refineries and other fossil-fuel based industries are not viable .

The Committee directed the Sustainability Coordinator to develop a draft climate emergency resolution that would be reviewed by the Sustainability Commission, and come back to the Committee.

8. RECEIVE REPORT on potential participation in California Electric Vehicle Infrastructure Project (CALeVIP), and RECOMMEND to the Board of Supervisors that the County participate in same.

The Committee received a presentation from Jody London, County Sustainability Coordinator, on the CALeVIP program, a State program that is providing tens of millions of dollars to regions across the state to install electric vehicle charging infrastructure. MCE, the County's community choice aggregator, is putting together a proposal to include the MCE member jurisdictions in the 2021 CALeVIP cohort. The Committee discussed its interest in participating. There is a question about the financial commitment that is being requested. Brett Wiley, MCE, said the County contribution could potentially come from

planned projects. Wiley said the MCE Board has committed to provide $5.5 million over four years toward CALeVIP and is asking MCE members to participate. The contribution requested for Contra Costa County - the County and the Contra Costa Transportation Authority combined - is $2.8 million over four years. The total amount that would become available for electric vehicle infrastructure in the County would be $11.5 million over the four year term of the program.

The Committee voted to bring to the Board a resolution endorsing County participation with MCE in the CALeVIP application, acknowledging that a funding source is not immediately available, and directing staff to continue to work with MCE on funding options.

9. RECEIVE REPORT on modifications to County Administrative Bulletins to reflect greater reliance on electric vehicles in the County fleet.

Joe Yee, Public Works, reported that the changes to the Administrative Bulletins are being made.

10. RECEIVE REPORT on benefits of building electrification and PROVIDE DIRECTION as appropriate.

This item was continued to the January 27, 2019 meeting.

11. RECOMMEND SUPPORT for the federal Green Act.

This item was continued to the January 27, 2019 meeting.

12. RECEIVE report from Sustainability Commission Chair.

Howdy Goudey, Sustainability Commission Chair, reported that the Commission is advising staff on the General Plan and Climate Action Plan updates and participating in community engagement meetings. The Commission recently made the recommendation for the County to adopt a Climate Emergency Resolution.

13. RECEIVE REPORT from County Sustainability Coordinator.

Jody London, Sustainability Coordinator, referred to the staff report included with the agenda.

14. The next meeting is currently scheduled for January 27, 2019, 12:30 P.M. in Room 101, 651 Pine Street, Martinez, CA.

15. Adjourn

For Additional Information Contact:

Jody London, Sustainability Coordinatorf
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Jody.London@dcd.cccounty.us

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date: 02/03/2020

Subject: RECEIVE REPORT on Building Electrification and PROVIDE DIRECTION re: same.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: Demian Hardman, DCD **Contact:** Jody London (925)674-7871

Referral History:

On September 23, 2019, the Sustainability Committee requested that staff provide a report on building electrification, including its benefits to existing homeowners. Building electrification has also been an item of recent interest by the Sustainability Commission and has been identified as a potential strategy to include in the update to the County's Climate Action Plan.

Referral Update:

Department of Conservation and Development (DCD) staff has completed some initial research on various jurisdictions throughout the Bay Area that have adopted new building electrification ordinances for new construction. Attached are a list of jurisdictions throughout the State that have either adopted all-electric or electric-preferred ordinances. Also included are reports from the cities of Oakland, San Jose, and San Mateo that provide some information on the benefits of building electrification.

Recommendation(s)/Next Step(s):

RECEIVE REPORT on benefits of building electrification and PROVIDE DIRECTION as appropriate.

Fiscal Impact (if any):

N/A

Attachments

Jurisdiction Building Electrification Matrix

City of Oakland Memo

City of San Jose Staff Report

San Mateo Building Electrification Agenda Item

Building Electrification
Active Reach Code Local Government Efforts
Building Decarbonization Coalition Code Comparison Matrix as of 11/25/2019

http://www.buildingdecarb.org/active-code-efforts.html

Jurisdiction	Status	Approach			Systems											Add-Ons			
		Natural Gas Infrastructure Ban	All-Electric Reach	Electric-Preferred	Whole Building	Water Heating	Space Heating	Low Rise Residential	City-Owned Properties	High Rise Residential	Hotel	Retail	Office	Restaurant	Life Sciences	Additional Solar	Electric Vehicles	Low Carbon Concrete	Natural Gas In Lieu Fee
Alameda	Approved	X			X				X										
Berkeley	Second Reading	A		B	X			X	A	X	X	A	A	A	A		X	X	
Brisbane*	Second Reading		X		X			X	X	X	X	X	X	X					
Carlsbad	Approved		X			X		X								X			
Davis	Approved			X	X			X											
Marin County	Approved			X	X			X	X	X	X	X	X	X	X		X		
Menlo Park*	Approved		X			X	X	X	X	X	X	X	X	X		X	X		
Mill Valley	Second Reading			X	X			X		X							X		
Milpitas	Second Reading			X	X			X	X	X	X	X	X	X	X				
Morgan Hill	Approved	X			X			X	X	X	X	X	X	X	X				
Mountain View*	Approved		X		X			X	X	X	X	X	X	X		X	X		
Pacifica	Second Reading		X			X	X	X	X	X	X	X	X	X		X	X		
Palo Alto*	Second Reading		A	B	X			A	X	B	B	B	B	B	B		X		
Saratoga	Second Reading		X			X	X	X	X	X	X	X	X	X	X		X		
San Jose*	Approved	A		B	X			A	X	B	B	B	B	B	B	B	X		
San Luis Obispo	Second Reading			X	X			X	X	X	X	X	X	X	X	X			X
San Mateo	Approved			X	X			X					X			X	X		
Santa Monica	Approved			X	X			X	X	X	X	X	X	X	X	X			
Santa Rosa	Approved		X		X			X											
Windsor	Approved		X		X			X											

*City Council opted to go beyond staff recommendation

A and B indicate different approaches as applied to specific building types.

Building Electrification
Active Reach Code Local Government Efforts
Building Decarbonization Coalition Code Comparison Matrix as of 11/25/2019

http://www.buildingdecarb.org/active-code-efforts.html

All-electric only:

- Berkeley
- Brisbane
- Menlo Park^
- Morgan Hill
- Mountain View
- Pacifica^
- Palo Alto
- San Jose
- Santa Rosa
- Saratoga
- Windsor

^Electric Clothes Drying, Space and Water Heating Required, Non-Residential All Electric Requirement

Electric-Preferred:

- County of Marin
- Davis
- Mill Valley
- Milpitas
- San Jose
- San Mateo
- San Luis Obispo
- Santa Monica

Other Approaches:

- Carlsbad (Electric Water Heating)
- Sunnyvale (Density Bonus)
- Oakland (Electric Vehicles)

CITY OF OAKLAND

INTER OFFICE MEMORANDUM

TO: **ECAP ad hoc Community Advisory Committee** **FROM:** Daniel Hamilton

SUBJECT: Building Electrification Information **DATE:** July 23, 2019

Foundation: IPCC Report for Policy Makers: Climate change caused by greenhouse gas emissions is significantly impacting the livability of the planet, and urgent action is needed to ensure the long-term viability of cities and nations. The 2018 IPCC report finds that limiting global warming to 1.5°C would require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities. The majority of reductions in GHG emissions must occur by 2030 to avoid the most serious impacts of climate change. Globally, this translates to a reduction in emissions of 45% between 2010 and 2030.

In addition to the global analysis above, the State of California, through the California Energy Commission (CEC), has provided strong evidence of the need for building electrification to be a foundational piece of the State's climate change strategy. The CEC has published reports that all-electric building requirements are beneficial to all utility customers, will improve the electricity grid, and significantly improve both GHG reductions and resident health. Multiple long-term strategy reports from the CEC indicate that all-electric buildings will be required Statewide in the future, and that leading cities are needed to demonstrate the effectiveness of the approach.

GHG Emissions in Oakland: Across the city, the majority of emissions in Oakland come from the burning of gasoline and diesel to power vehicles, as well as burning natural gas to provide heating and cooking for homes and businesses. With the creation of East Bay Community Energy, Oakland is now served with electricity that is more than 85% carbon free; expected to reach 100% carbon free within the next 10 years. With an abundant supply of clean green electricity, transitioning all remaining fossil-fuel based energy systems to electric alternatives becomes the City's most impactful and cost-effective strategy for meeting the deep GHG reductions necessary to meet this global challenge and protect our community from deeper impacts of climate change. For newly constructed buildings, this memo provides a summary of the analysis demonstrating that all-electric buildings are a viable policy solution today.

Cost Effectiveness: Staff and stakeholders have been conducting analysis over the past several years to identify the most cost-effective ways to transition these building and transportation systems to electric alternatives. Working with the City, Bloomberg Associates prepared a Cost Effectiveness Study for Reducing GHG Emissions in Oakland. This study concluded that electrifying the buildings and vehicles in Oakland are both cost-effective and critical items for the City to pursue, particularly the electrification of newly constructed buildings in the near term. This study is the most robust local government analysis ever undertaken to ascertain the costs

and benefits of such a policy, and conclusively demonstrates that Oakland is a prime location for requiring all newly constructed buildings to utilize electricity for all energy systems.

In addition to the Bloomberg Analysis, the Rocky Mountain Institute, a think tank focused on energy issues, prepared an analysis of the costs and benefits of electrifying buildings for four cities, including Oakland. This analysis came to a similar conclusion that all-electric buildings in Oakland are both cost-effective to build and to operate. The report concluded that the City should "Recognize and encourage all-electric new construction buildings as both a cost-reducing and carbon-reducing measure through new building codes". The report also focused on the benefits of ending the construction of gas infrastructure in new residential buildings, documenting that the City should "Limit or stop further expansion of the natural gas distribution system to service more homes. Electric space and water heating is likely to provide the same service to customers for less cost and carbon emissions, and avoid the risk of stranded gas distribution assets".

Health Benefits: Requiring all-electric buildings not only reduces the cost of both construction and lowers utility bills for residents and businesses, there are also significant health benefits for people using these buildings. Research into the impacts of natural gas systems in homes has been occurring across the medical and community health fields, documenting significant risks and impacts associated with natural gas cooktops, leaking natural gas from appliances, and poorly ventilated kitchens. Studies by Lawrence Berkeley National Laboratory, the National Institutes of Health, California Energy Commission, and Johns Hopkins University have documented unhealthy levels of nitrous oxides (NOx) in homes with gas cooktops, particularly noting the disproportionately negative impact on inner city African American children. The Johns Hopkins University study calls for interventions to reduce exposure to natural gas to reduce asthma symptoms and morbidity in African American children, a critical policy consideration in considering whether to require gas-free buildings.

Regional and National Action to Electrify Buildings: Oakland is among more than 50 cities actively considering policies to reduce or eliminate the use of natural gas systems in buildings. In July 2019, the City of Berkeley became the first City to ban natural gas systems in all new construction, garnering a unanimous vote of Council following public support for the policy from residents, developers, the California Energy Commission, and PG&E. More than 30 cities in the Bay Area, in addition to cities along the central coast of California and in the Los Angeles area, have indicated that they are actively considering building codes that will eliminate natural gas systems from some or all building types. East Bay Community Energy (EBCE), in coordination with multiple other community choice energy providers, has provided cost-effectiveness studies for cities to use in considering this policy solution. EBCE has provided the City of Oakland with analysis of all-electric buildings in our climate zone, concluding that all-electric buildings are cheaper to build and will result in lower utility bills for all building types. This analysis was done in coordination with the standards set forth by the California Energy Commission, and can serve to meet the regulatory requirements of any Council action to eliminate natural gas options in newly constructed buildings. Similar studies have been completed for the peninsula and south bay, documenting similar results. These combined

analyses will enable dozens of Bay Area cities to consider all-electric building codes during the fall and winter of 2019.

Technologies for All Electric Buildings: Developers and contractors, as well as interested residents, have sought to learn whether there are appropriate technologies to replace the natural gas systems. Developers tend to focus mostly on replacements for gas furnaces, while residents tend to care most about gas cooktops. Staff in Oakland and elsewhere, including PG&E and other utilities, have been preparing materials to help interested parties learn about the wide range of technologies currently available for use in all-electric buildings. Electric heating systems such as heat pumps are available from many manufacturers, in sizes and configurations for any residential or commercial building type. Cooking systems for both homes and businesses have a variety of options, including induction cooktops for homes, that are not only more energy efficient, but also far superior in cooking times and temperature control to natural gas cooktops. Working with other cities and industries, the Building Decarbonization Coalition has helped to demonstrate that all residential, commercial, and specialty building types can be designed as all-electric without any disruption to the ways residents and businesses currently use their homes and offices.

Conclusions: The City of Oakland is in an excellent position to reduce GHG emissions, decrease construction costs, lower utility bills, and improve the health of all residents through the elimination of natural gas systems in newly constructed buildings in Oakland. There is sufficient evidence of the cost effectiveness of the approach, market availability of technologies, and understanding within the impacted industries to ensure that the policy can be implemented as intended. Following the recent natural gas ban in Berkeley, multiple other cities in our region will be considering similar policies to this for these reasons. The cumulative impact of these policies will further aid rapid market transformation in the construction industry, and help Oakland take another major step forward in protecting the community from climate impacts.

City staff are conducting workshops with relevant stakeholders throughout the summer, and the proposed all-electric building code is tentatively scheduled to be publicly considered by the Community and Economic Development Committee on October 22nd. Full City Council consideration could then occur as early as November 5th.

Sincerely,

Daniel Hamilton
Oakland Public Works
Acting Manager, Environmental Services

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
Rosalynn Hughey

SUBJECT: **BUILDING REACH CODE FOR NEW CONSTRUCTION**

DATE: August 21, 2019

Approved

Date 8-30-19

RECOMMENDATION

Accept the report and refer to the full City Council on September 17 for consideration of:

1. Approval of an Ordinance amending various sections of Title 24 (Technical Codes) to adopt Provisions of the 2019 California Green Building Standards and California Building Energy Efficiency Standards with certain exceptions, modifications, and additions which serve as a reach code to increase building efficiency, mandate solar readiness, and increase requirements related to electric vehicle charging stations; and
2. Acceptance of findings related to local modifications based upon local geographical, topographical, and climatic conditions and cost effectiveness; and
3. Authorization for the City Manager to submit a reach code submittal package to the California Energy Commission for its approval as required by law.

OUTCOME

City Council approval of a San José Reach Code Ordinance for new construction will further community-wide progress on meeting the goals of the following Climate Smart San José strategies:

- Strategy 1.1: Transition to a renewable energy future
- Strategy 2.2: Make homes efficient and affordable for our residents
- Strategy 2.3: Create clean, personalized mobility choices
- Strategy 3.2: Improve our commercial building stock

EXECUTIVE SUMMARY

The effects of climate change are devastating and increasing. To do its part to reduce greenhouse gas emissions and address climate change, the City adopted Climate Smart San José ("Climate Smart") which sets aggressive goals around electric vehicle (EV) adoption, solar installation, and zero net energy/carbon (ZNE/ZNC) buildings. The proposed reach code is designed to lower and eventually eliminate greenhouse gas (GHG) emissions from new construction.

The California Energy Commission (CEC) updates the California Building Energy Efficiency Standards every three years. The 2019 California Code will go before City Council in October 2019 for approval, with an effective date of January 1, 2020. Jurisdictions may also adopt "reach codes" that require development projects to exceed the minimum Building Energy Efficiency requirements. A proposed reach code would need to be approved by City Council in September 2019 in order to submit to the CEC in time for an effective date of January 1, 2020, corresponding with the effective date of the new 2019 California Code.

As part of its American Cities Climate Challenge (ACCC) commitment, the City agreed to pursue adoption of a "reach code" for new residential and commercial construction, aligned with Climate Smart goals. To this end, the Environmental Services Department (ESD) and Planning, Buildings and Code Enforcement (PBCE) Departments co-led the development of the proposed reach code with the New Buildings Institute (NBI), a technical partner that specializes in building codes and ZNE buildings. Staff reached out to over 250 stakeholders and conducted seven public meetings and several individual meetings to get community and developer input on a potential reach code. Several considerations influenced the scope of the proposed reach code including: input from various City departments; input from external stakeholders; impact on GHG emissions; the economic impact on development projects; regional reach code efforts; and alignment with the State's longer term decarbonization efforts.

The proposed reach code will apply only to new residential and non-residential construction in San José. It incentivizes all-electric construction, a cost-effective construction option for all building types. It also requires increased energy efficiency and electrification-readiness for those choosing to maintain the presence of natural gas, a fossil fuel and powerful GHG, and construct mixed-fuel buildings. It requires that non-residential construction include solar readiness. It also requires additional EV charging readiness and/or electric vehicle service equipment (EVSE) installation for all development types.

The reach code will provide many benefits including: significant GHG emissions reductions; financial benefits related to lower cost electric construction, facilitate the transition to EVs, and avoidance of significant EV charging retrofit costs; and public health benefits by reducing both indoor and outdoor air pollution. All of these benefits are specifically pertinent to San José's low-income communities, which are inordinately impacted by the negative environmental and financial impacts associated with natural gas in buildings and gasoline-powered vehicles.

BACKGROUND

The climate challenges of this century directly affect the quality of life of all residents in San José. Over the past two years, across California, the United States, and worldwide, there have been more frequent and disruptive flooding events, degraded air quality from massive wildfires, and record-breaking extreme heat events. San José has been no stranger to such occurrences. Coyote Creek flooded in February 2017, affecting adjacent neighborhoods and causing an estimated $73 million in property damage to San José homes and businesses, and forcing 14,000 residents to evacuate, some even by boat[1]. Flooding and displaced residents, particularly in coastal zones, may also become a familiar site, according to a new study that declared tens of thousands of Bay Area homes are at risk of flooding from rising sea levels by 2050[2]. This summer, the world experienced the hottest month (July 2019) ever recorded in human history[3]. Furthermore, the Bay Area experienced a record heat wave first in June 2019[4] and then again in July 2019[5], a trend that seems to be exacerbating rather than diminishing, considering that 2018 was previously dubbed the hottest year on record worldwide[6]. San José has been impacted by these events which affect the health of residents and visitors, the safety of neighborhoods, the success of businesses and institutions, and the viability of local plants and wildlife.

In response to the experienced and potential impacts of climate change, the City of San José was one of the first U.S. cities to adopt a Paris Climate Agreement-aligned climate action plan, Climate Smart San José. Approved by City Council in February 2018, Climate Smart includes the following goals and milestones to ensure the City can reduce GHG emissions on target:

- All new residential (by 2020) and commercial (by 2030) buildings as ZNE[i,7], in alignment with the State of California's ambitious ZNE goals[8].
- 100 percent carbon-free base power from San José Clean Energy (SJCE) by 2021.
- 1 GW of solar installed in San José by 2040.
- 61 percent of passenger vehicles are EVs by 2030.
- Reimagining the "Good Life 2.0," that harnesses the benefits of sustainable actions and improves our quality of life.

In 2018, the California Legislature passed Senate Bill 1477 with strong support from the City. SB 1477 authorizes $50 million in Cap and Trade funds for two pilot programs, the Building Initiative for Low Emission Development (BUILD) and Technology and Equipment for Clean Heating (TECH) programs, which will enable California to lead the way toward decarbonization of new and existing building stock. The California Public Utilities Commission is currently in proceedings to establish the parameters for providing this funding throughout California.

The CEC updates the California Building Energy Efficiency Standards every three years, in alignment with the California Code of regulations. Title 24 Parts 6 and 11 of the California Building Energy Efficiency Standards and the California Green Building Standards Code

[i] As defined in Climate Smart, a ZNE building is one which is zero net carbon emissions, meaning that it would need to be all-electric with a clean energy source (i.e. via the grid and/or on-site renewable energy).

(CALGreen) address the need for regulations to improve energy efficiency and combat climate change.

California State law and the Building Energy Efficiency Standards require new construction to meet certain energy efficiency and renewable energy criteria which is documented in the Building Code. There are two pathways, prescriptive and performance set forth in Section 100.0(e)2 of Part 6, to demonstrate compliance with the Building Code. The prescriptive path relies on employing specific measures to achieve compliance whereas the performance pathway is based on an energy budget allowance.

The California Building Energy Efficiency Standards apply to "residential" and "non-residential" building types. The residential category covers low-rise residential buildings with three or fewer habitable stories. The non-residential category covers all non-residential occupancies, as well as hotels/motels and high-rise residential buildings with four or more habitable stories. The 2019 California Building Energy Efficiency Standards includes some substantive changes to increase the energy efficiency of buildings and encourage the installation of solar and heat pump water heaters in low-rise residential buildings. PBCE staff will separately present the 2019 California Codes, with any related amendments, for Council adoption in October 2019 in order to allow for a January 1, 2020 implementation date.

Jurisdictions also have the authority to adopt "reach codes" that require development projects to exceed minimum requirements established in the 2019 California Energy Code's Building Energy Efficiency Standards (Title 24, Part 6). In order to be approved by the CEC, a reach code must: 1) be at least as stringent as the statewide code; 2) be cost effective as defined by standards set by the CEC; 3) be submitted to and approved by the CEC; and 4) not preempt federal appliance regulations.

Nineteen cities, including eight in the Bay Area (e.g. San Francisco, Oakland, and Fremont), adopted reach codes in the current (2016) code cycle to encourage or require building electrification, increased building energy efficiency, the installation of electric vehicle infrastructure (EVCI), and/or solar installation. According to the CEC, over 50 cities are considering reach codes, with a focus on encouraging or requiring building and transportation electrification, for implementation in the 2019 building code cycle. In the Bay Area alone, more than 45 jurisdictions are pursuing a reach code including eight in Alameda County, 19 in San Mateo County, 14 in Santa Clara County, the City and County of San Francisco, and five in Sonoma County. Many cities, including San José, have been coordinating to support and encourage consistency of reach codes, particularly among those located in the same geographic area.

At the February 26, 2019 City Council meeting, City Council approved the City's scope of work in its ACCC memorandum of understanding, which included a support package of in-kind services valued at $2.5 million over a two-year period concluding at the end of 2020. As part of its ACCC commitment, the City agreed to pursue adoption of a reach code for EV and solar-readiness in new residential and commercial construction, aligned with Climate Smart goals. In

order to advance this initiative, the City has partnered with the NBI through the ACCC to facilitate the reach code development process, including stakeholder engagement.

In May 2019, staff included an update on the City's reach code initiative at the Transportation and Environment (T&E) Committee meeting (May 6, 2019) and a City Council meeting (May 21, 2019) as part of the Climate Smart semi-annual update. In addition, ESD and PBCE staff presented an update on the reach code work completed to-date at the June 24, 2019 Community and Economic Development Committee meeting.

ANALYSIS

There are several factors influencing: 1) whether San José should adopt a reach code, 2) what San José's reach code should consist of, and 3) when San José should adopt a reach code. The following sections provide context informing staff's proposed reach code.

Greenhouse Gas Emissions Reduction Benefits

One of the reasons why moving away from natural gas would have such a large impact on greenhouse gas emissions in San José is because natural gas is made up primarily of methane, a super pollutant that is 84 times more effective at trapping heat in the atmosphere than CO_2 over the short term[9].

In order to further San José's Climate Smart GHG reduction goals, new construction in San José will need to be designed to exceed the requirements of the 2019 Building Energy Efficiency Standards and CALGreen Building Standards. Based on the City's latest five-year development forecast[10], San José can conservatively expect approximately 350 single-family new residences, 2,400 new multi-family residences, and 2.4 million additional square feet of commercial/industrial construction per year over the next three years. If these buildings use natural gas, an estimated increase of 897,000 tons of greenhouse gas emissions would result over the expected life of the buildings (50 years for residential and 50 years for commercial). This equates to almost 300,000 Metric Tons of CO_2 emissions per year, equivalent to 1.7 trillion car miles[11], as shown in Table 1 below.

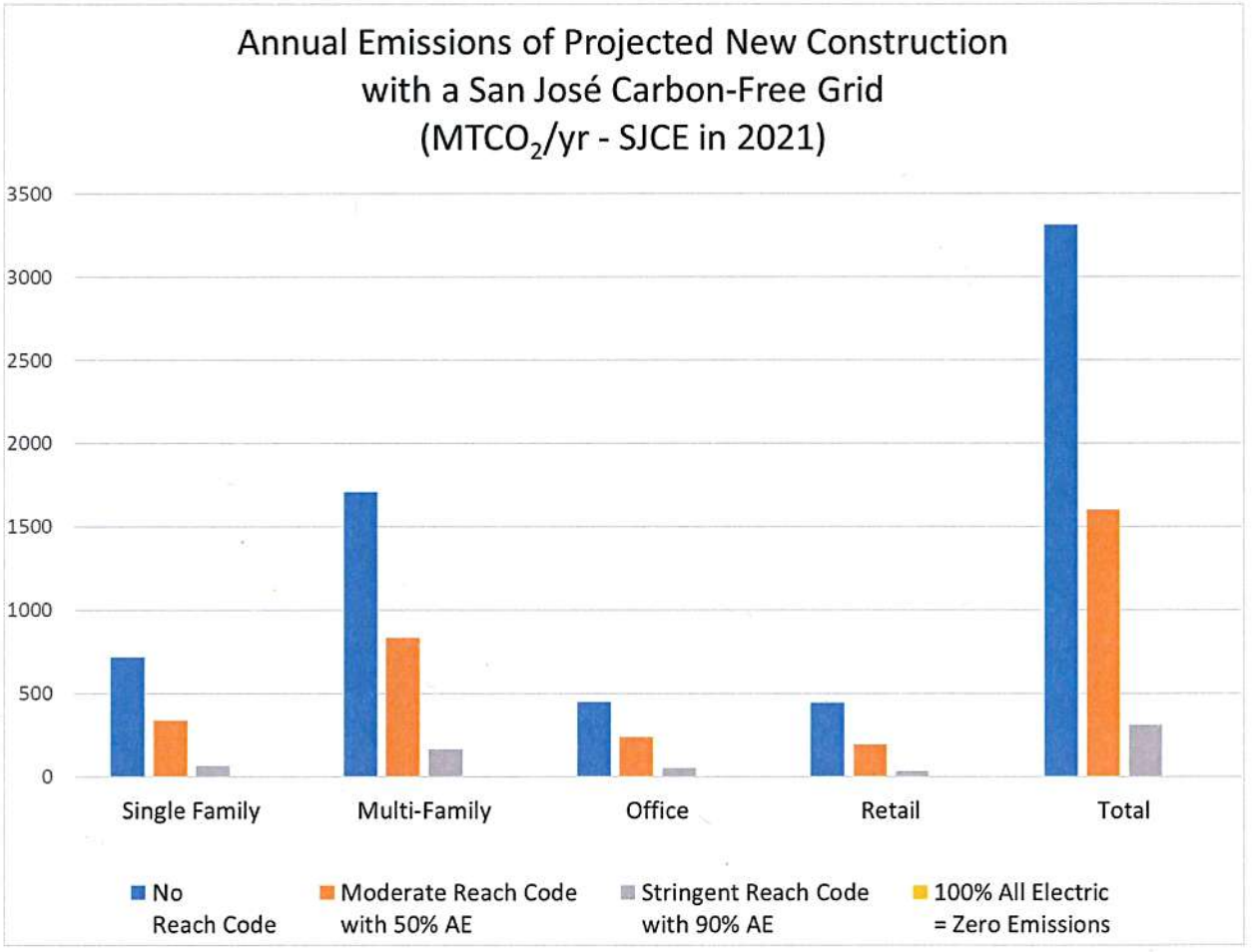
Table 1. Projected New Construction Development in San José and CO_2 Impact[10]

Building Type	Sq. Ft.	CO_2/Yr.	x	Units/Yr.	x	Years in service	Total tons of CO_2
Single-Family	2,700	2 tons	x	350	x	50	105,000 tons
Multi-Family	1,000	1 ton	x	2400	x	50	360,000 tons
Commercial/ Industrial	100,000	120 tons	x	24	x	50	432,000 tons
						Total CO_2:	**897,000 tons**

Graph 1 compares the potential GHG emissions offset by San José's proposed reach code when compared with the Title 24 Base Code (based on the development forecast as shown in Table 1).

The graph looks at the emissions impact for each building category for mixed fuel and all-electric buildings. It is important to note that this graph assumes 100 percent of electricity is carbon neutral and begins in 2021, in accordance with SJCE's scheduled delivery plans. The emissions offset by mixed fuel buildings come from increased efficiency requirements as required by the reach code. The graph shows emissions if no reach code is implemented (blue), if 50 percent (orange) and 90 percent (gray) of all new construction is all-electric. Emissions from all-electric buildings are zero or negligible and therefore are not shown. The emissions impact of the proposed reach code will largely depend on how much it incentivizes all-electric new construction, but it is estimated that staff's recommendation will reduce emissions from new construction to at least 1,500 $MTCO_2$/year.

Graph 1: Carbon Impact from Reach Code in Mixed Fuel vs All-Electric New Construction[12]



Based on the City and State goals to reduce GHG emissions, electrification retrofits will be necessary and ultimately required for existing buildings. Addressing electrification now in new buildings avoids hardships and retrofit costs for building owners in the future and acknowledges the GHG impacts of taking no action, particularly considering the benefits of building and

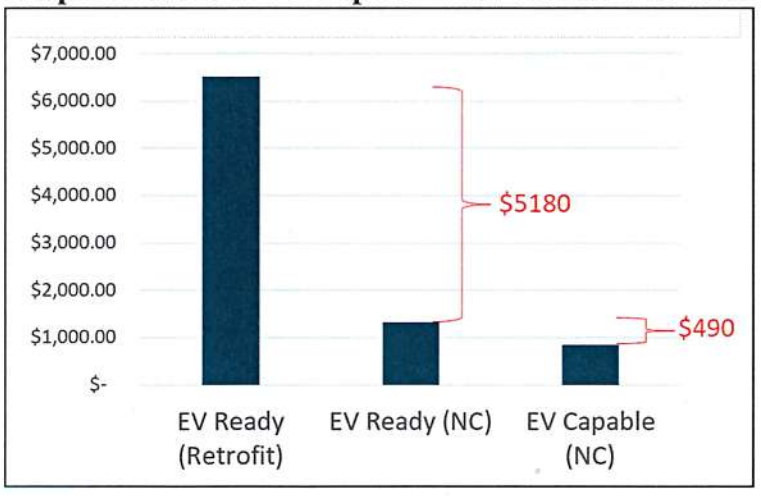
transportation electrification when paired with carbon-free electricity that will be provided by SJCE.

Promoting EV adoption and solar infrastructure represents further opportunity to reduce GHGs. Since EVs are powered by electricity, they have the potential for zero tailpipe emissions and, therefore, represent a significant potential to reduce GHGs in San José. SJCE purchases renewable energy from sources such as solar and wind, helping reduce GHG emissions dramatically from the electricity sector and reduce energy costs for consumers. Solar heating and cooling systems can provide about 80 percent of the energy used for space heating and water heating needs[13], as well as provide clean emissions-free energy sources to charge EVs.

Financial Benefits

Adding additional amenities (e.g. conduit, wiring, breaker space) to accommodate building electrification or Electric Vehicle Charging Infrastructure (EVCI) during initial construction is more efficient and significantly more cost effective than retrofitting a building after it is constructed. There are three different levels of EVCI: 1) EV Capable: a parking space with conduit sized for a 40-amp, 208/240 Volt dedicated branch circuit and sufficient physical space on the service panel, 2) EV Ready (full circuit): a space with conduit and wiring for a 40-amp, 208/240 Volt circuit, electrical service capacity, and outlet, 3) Electric Vehicle Service Equipment (EVSE): a parking space with electric vehicle supply equipment capable of supplying current at 40amps at 208/240 volts. The amount of EVCI needed in each building will depend primarily on the type of building and occupant use. The importance of adding the right level of EVCI at the time of new construction is critical. The Graph 2 shows the EVCI cost differences in new construction (NC) versus building retrofits for EV Ready (essentially plug and play) and EV Capable (conduit and breaker space only) parking spaces. One of the reasons why requiring electrification-ready spaces at the time of new construction is so important is because the retrofit cost is often a barrier to installing EVSE.

Graph 2. Cost of EVCI/ Space – New Construction versus Retrofit[14]



Providing EVCI encourages the uptake of EVs and EVs offer owners a lower operating cost versus standard vehicles, which is particularly significant to our lower-income communities as detailed in the following section.

Benefits to Low-Income Communities

Promoting electrification of buildings and EV charging access is expected to have positive economic and health-related effects on low-income communities. A recent study by U.S. Environmental Protection Agency (EPA) scientists shows that low-income communities, particularly those of color, are disproportionately affected by air pollution[15]. It is therefore imperative that clean fuel options (i.e., electric) are incorporated into San José's low-income community housing to promote the reduction of indoor and outdoor air pollution.

EV charging can be perceived by some as incongruent with low-income housing needs, however recent studies suggest otherwise. EVs are becoming more affordable to purchase and their fuel costs are considerably lower than fossil fuel powered vehicles. While price point has traditionally been a barrier for low-income communities to purchase EVs or hybrids, recent market research suggests that prices are falling at a dramatic rate due to lowering battery costs and government rebate programs[16]. According to a recent CB Insights Report, the general industry consensus is that EVs will reach price analogy with fossil fuel vehicles within the next decade, possibly as soon as 2021[17]. Further lowering upfront costs, the California Clean Vehicle Rebate Project offers rebates of up to $4,500, with additional rebates for low-income buyers, for the purchase or lease of new, eligible battery electric vehicles[18]. In terms of operational costs, compared with $2,550 per year for similar fossil fuel vehicles[19], an EV will save the average user an estimated $10,000 in fuel costs over the course of 10 years at current fuel and SJCE utility rates. For these reasons, EV charging access, which would be facilitated by the proposed reach code, is therefore just as relevant if not more critical to low-income housing projects as market-based or commercial projects.

Public Health Benefits

Moving toward all-electric buildings will result in reduced GHG emissions and better indoor and outdoor air quality. When emissions from natural gas are compared with those from PG&E's electricity fuel mix, emissions from natural gas are almost double.

Another concern with using natural gas as a fuel source involves leaks associated with transmission. Since the majority of natural gas (84 percent) used in California is imported from other states and Canada, interstate pipelines must be operated in order to deliver natural gas to California[20]. The EPA currently estimates the national methane leakage rate to be 1.4 percent[21]. However, a study conducted by the Environmental Defense Fund shows the methane leakage rate at 2.3 percent[22]. Recent studies exposing the leaks coming from the State's natural gas pipelines predict emissions to be a lot higher, about double, when accounting for the leaks[23].

In recent years, issues over natural gas safety have caused growing concern. In 2010, an underground gas pipe explosion killed eight people and destroyed or damaged more than 100 homes in San Bruno, California. The largest natural gas leak in U.S. history occurred just a few

years ago in Southern California at the SoCalGas Aliso Canyon Gas Storage Facility site. Between 2015 and 2016, a natural gas leak at Aliso Canyon was responsible for approximately 100,000 MT of methane and forced the evacuation of more than 8,300 households for more than 100 days[24].

Statewide Cost Effectiveness Study

The California Statewide Codes and Standards Program completed cost effectiveness residential[25] and non-residential studies[26] for use statewide in the current building code adoption cycle to justify the cost effectiveness of certain types of reach codes for new construction. Jurisdictions may also develop additional cost effectiveness studies, if needed, to proceed with their specific reach code. San José's proposal is based on data in the existing studies, so additional studies were not needed. EVCI requirements going beyond building code do not need a cost effectiveness study or separate CEC approval since they are not directly related to a building's energy efficiency.

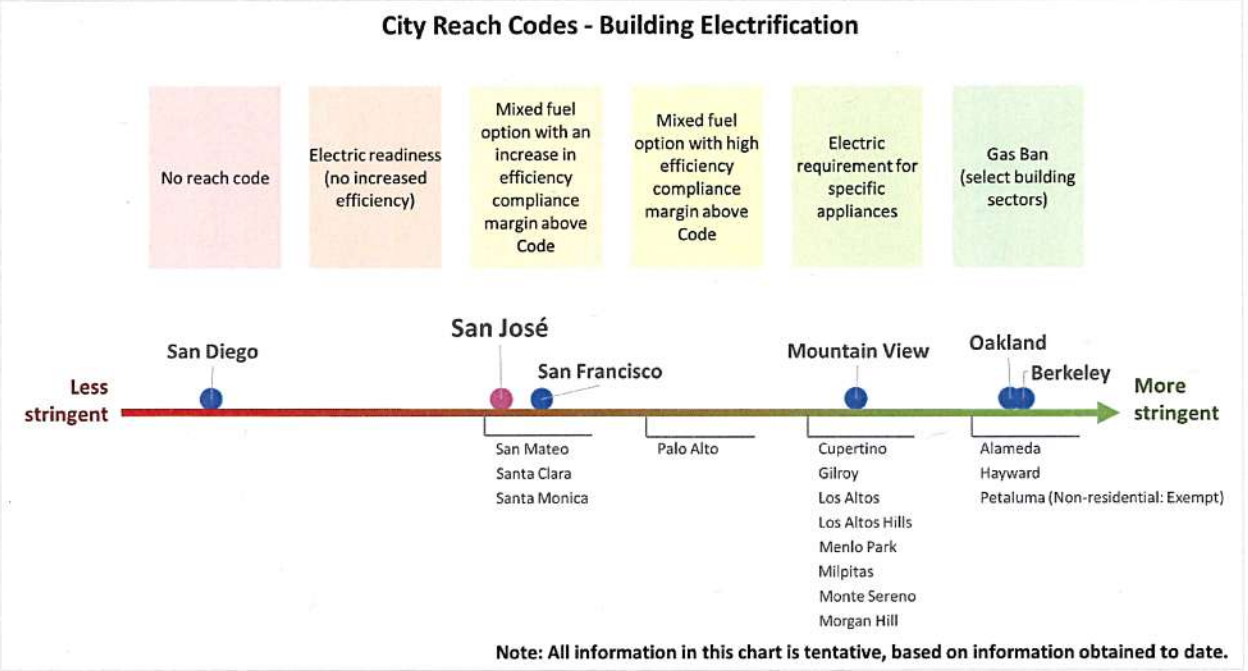
Regional Reach Code Efforts

Current regional reach code efforts are generally focused on both residential and non-residential new construction and EVCI, and incentivize or require:

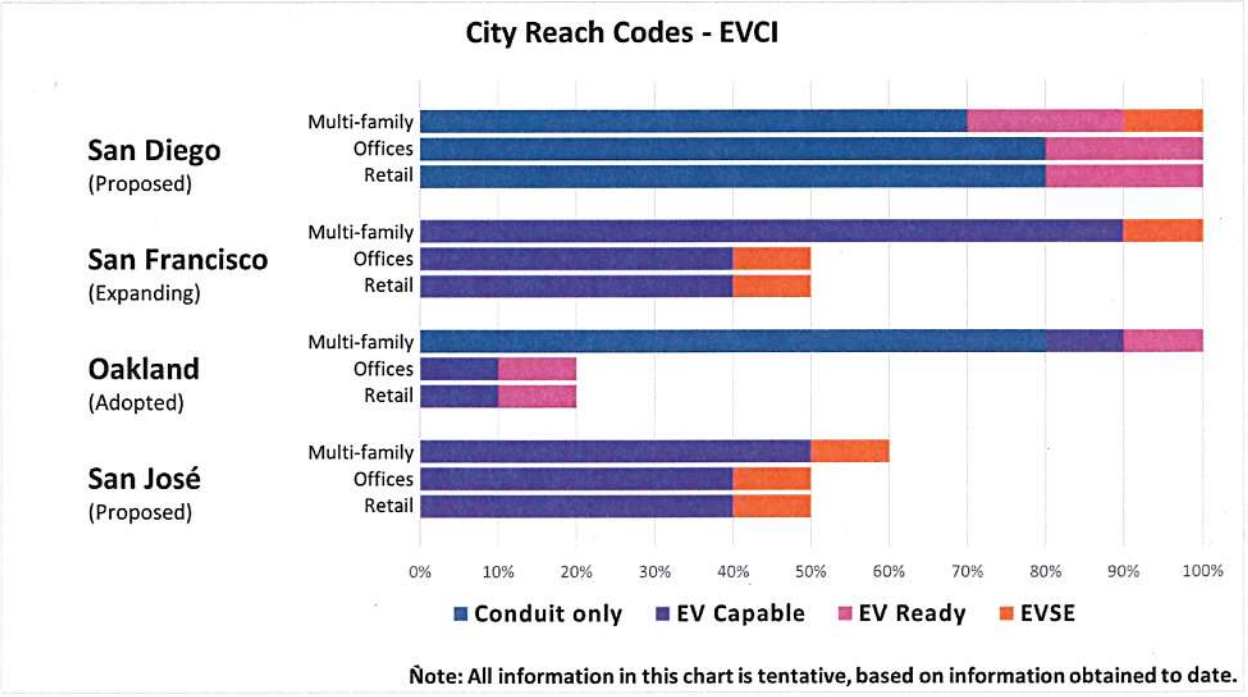
1. All-electric buildings for new construction; or
1. Mixed fuel (i.e. natural gas and electric) buildings, when allowed, go above building energy code (up to maximum limits set by existing cost effectiveness studies) and include electrification readiness in order to incentivize all-electric buildings; and
2. Additional EVCI requirements for all building types to further and prepare for current and anticipated future EV uptake.

While it is important to consider San José's unique building development characteristics, there is also a clear benefit on both the City implementation and development customer side to align as much as possible with regional reach codes for consistency. The proposed San José reach code built off of the draft reach code language released by regional partners representing jurisdictions in the rest of Santa Clara County and in San Mateo County[27]. City staff also communicated with other California jurisdictions outside of the region to vet reach code options. Regional collaboration offers local municipalities the opportunity to collectively encourage building electrification that will be similarly implemented across Silicon Valley and/or the State, therefore reducing the risk of competitive disadvantage between municipalities. For reference, Attachment A explains the components and shows the current known status of reach codes planned or under consideration in the 2019 building code cycle by a variety of California jurisdictions. Based on the information that City staff has been able to obtain to-date, Image 1 and Graph 3 below provides visual summaries of the level of San Jose's proposed building and EVCI reach code requirements versus other California cities.

Image 1. San José Proposed Building Reach Code Requirements versus Other California Cities



Graph 3. San José Proposed EVCI Reach Code Requirements versus Other California Cities



Stakeholder Input

Throughout the reach code development process, PBCE and the ESD staff informed and coordinated with other City departments including the Departments of Community Energy, Housing, Public Works, San José Mineta International Airport, Department of Transportation, and the Office of Economic Development. With the assistance of various City departments, City staff developed a stakeholder engagement list including:

- Over 65 stakeholders, including developers, contractors, environmental and transportation or energy non-profits, industry organizations, business associations, realtor organizations, labor groups, technical experts, educational groups, EV and solar companies, construction management and engineering firms, and utilities.
- More than 200 Neighborhood Associations for all ten City Council Districts.

Reach code stakeholder engagement activities included:

- Four stakeholder engagement workshops covering:
  - Introduction to San José 's reach code development process (May 29, 2019)
  - New non-residential construction focus (June 4, 2019)
  - New residential construction focus (June 25, 2019)
  - Final input on draft reach code language (July 10, 2019), with an extended public comment period through July 23, 2019.
- Presentation at the Silicon Valley Organization Housing & Development Policy Committee meeting (June 13, 2019)
- Presentation at the City's Developers and Construction Roundtable (June 21, 2019)
- Presentation to the City's Community and Economic Development Subcommittee (June 24, 2019)
- Individual meetings, as requested, with organizations representing the affordable housing and market-rate development community
- City Reach Code webpage (www.sanjoseca.gov/reachcode) to keep the public informed about the City's reach code development process and timeline, including key meeting dates, agendas and content for stakeholder meetings, and draft reach code language.

Cost Concerns

The primary concern raised by external stakeholders and other City departments is whether there is a cost increase to build and/or operate all-electric buildings. According to the statewide cost effectiveness studies, all-electric buildings offer savings on "first" construction cost for all building types when compared to mixed fuel buildings. Table 2 shows the first, annual utility, and life-cycle costs for all-electric buildings and mixed fuel buildings under a reach code compared to base code, and demonstrates that beyond the costs inherent to base code compliance, all-electric construction has no added costs for San José's proposed reach code. The cost effectiveness studies do however show an increase in the annual utility costs for all electric buildings, which is the primary reason why lifecycle costs for all electric buildings show an increase in certain building types. The life cycle costs in the table below include annual utility costs (over a 30-year period), maintenance, and the Net Present Value of building equipment. It is important to note that the costs presented below do not account for the projected change in fuel

costs for electricity and natural gas. These projections are based on the notion that a considerable amount of gas infrastructure is nearing the end of its life and will need to be replaced and/or seismically retrofitted. For example, in 2018, SoCalGas requested a rate increase from the CPUC on the cost of natural gas[28]. If approved, SoCalGas ratepayers will see an increase of 19% in 2019, 8.1% in 2020 and 6.1% in 2021, which will be used to replace existing infrastructure, increase safety and cover transportation costs. If these factors are accounted for, the LCC and annual utility costs are reduced, relative to increasing gas costs, for all electric buildings.

Table 2. Costs of Reach Code All-Electric and Mixed Fuel Buildings over 2019 Base Code[25, 26]

	Costs of a Reach Code All-Electric Building over 2019 Title 24 Base Code			Costs of a Reach Code Mixed Fuel Building[ii] over 2019 Title 24 Base Code		
	First Cost	Annual Utility	Life-Cycle	First Cost	Annual Utility	Life-Cycle
Single-family	$0/unit	$0/unit	$0/unit	+$5,434/unit	-$17.43/unit	+$4,911/unit
Low-Rise Multi-family	$0/unit	$0/unit	$0/unit	+$2,429/unit	-$9.60/unit	+$2,141/unit
Office	$0/sf	$0/sf	$0/sf	+1.24/sf	-$0.10/sf	-$1.78/sf
Retail	$0/sf	$0/sf	$0/sf	+$0.23/sf	-$0.10/sf	-$2.85/sf
Small Hotel	$0/sf	$0/sf	$0/sf	+$0.51/sf	-$0.02/sf	-$0.06/sf

Other recent studies found lower upfront and/or lifecycle costs for both residential and non-residential all-electric buildings[29] [30]. Multi-family, affordable housing, and non-residential development projects in California (including several in San José) are already building all-electric (see Attachment B for examples all-electric development projects in the Bay Area).

In terms of EVCI, increased construction costs will be incurred by requiring new construction to provide additional charging infrastructure. Table 3 provides a hypothetical scenario to illustrate how additional EVCI requirements could impact first construction costs under the proposed reach code. The costs represented in Table 3 are for a multi-family building and a commercial

[ii] Figures are based on the highest Energy Design Rating and compliance margins possible for mixed fuel buildings while still maintaining cost-effectiveness.

office building each with 100 parking spaces. The incremental costs are projected to be less than one percent of total project costs.

Table 3. EVCI Additional Construction Costs for Multi-family and Non-Residential Buildings Scenarios[12]

	Multi-family 2019 Base Code	Multi-family Reach Code	Non-Res 2019 Base Code	Non-Res Reach Code
EV Capable Spaces	0	50	0	40
EV Ready Spaces	10	0	10	0
EVSE Spaces	0	10	0	10
Total Cost of EV Capable (w/8A capacity)	$ -	$ 49,500	$ -	$ 39,600
Total Cost of EV Ready[1]	$ 13,300	$ -	$ 13,300	$ -
Total Cost of EVSE	$ -	$ 23,300	$ -	$ 23,300
Total EVCI Cost	**$ 13,300**	**$ 72,800**	**$ 13,300**	**$ 62,900**
Total Project Cost[2]		$ 23,000,000		$ 30,000,000
Incremental Cost of reach code over 2019 base code		0.26%		0.17%

1. Pike, Ed P.E., (2018, June 20). Opportunities to Support PEV Adoption, Roadmap 11, Portland, OR. Energy Solutions [PowerPoint Slides] Retrieved from http://roadmapforth.org/program/presentations18/EdPike.pdf
2. Assumed $250/sf for a 92,000 sf MF development and $300/sf for a 100,000 sf non-res development.

San José Reach Code Components

Considering stakeholder input and the various benefits that can be achieved through a reach code, San José updated the draft reach code language (see Attachment C for a redlined version).

The proposed reach code, codified in the San José Reach Code Ordinance (Attachment D), includes the following:

1. Incentivizes all-electric buildings by requiring that mixed-fuel buildings achieve a higher energy efficiency (demonstrated through a higher Energy Design Rating or compliance margin[iii]) and be electrification ready for all building types;
2. Requires additional electric vehicle charging infrastructure requirements across all building types; and
3. Requires solar readiness for non-residential buildings.

The specific components of San José's proposed reach code are summarized in Table 4.

[iii] Compliance Margin, applicable to non-residential buildings, is the percentage difference between the energy use of the proposed building project over the baseline requirement. An Energy Design Rating, applicable to low-rise residential projects, is a way to express the energy consumption of a building as a rating score index from 1-100 wherein a score of 0 represents a building that has zero energy consumption.

Table 4. Proposed Reach Code Components

	Proposed Reach Code Compliance Pathways	
Occupancy Type	**All-Electric***	**Mixed Fuel***
Single-family & Low-Rise Multi-family	**Efficiency:** To code	**Efficiency:** Energy Design Rating ≤10, electrification-ready
High-rise Multi-family & Hotel	**Efficiency:** To code **EVCI:** Same as mixed fuel	**Efficiency:** 5% (compliance margin), electrification-ready **EVCI:** 10% EVSE, 50% EV Capable
Non-Residential	**Efficiency:** To code **EVCI:** Same as mixed fuel	**Efficiency:** 10% office/retail, 0% industrial/manufacturing, 5% all other occupancies, electrification-ready **EVCI:** 10% EVSE, 40% EV Capable

*Solar-readiness required for all buildings.

Both the mixed fuel building and EVCI requirements were reduced in response to concerns raised by other City departments and external stakeholders around construction costs. A comparison of the proposed components versus the draft components is included in Attachment E.

Reach Code Implementation

City staff intended for the reach code implementation timing to be aligned with the City's implementation of the 2019 California Code, which will go into effect on January 1, 2020. Due to the CEC's review and approval period for a reach code, the ordinance for the San José Reach Code should be approved by City Council and submitted to the CEC no later than September 2019, in order to align with the January 1, 2020 implementation date.

This implementation timing will allow for:

1. Simultaneous implementation of the updated California Code and the reach code requirements, streamlining the process for both City staff and for those submitting development projects;
2. An efficient process that maximizes the implementation period of the reach code since a reach code needs to be re-approved with each code update;
3. Maximization of the impact of the reach code by ensuring it applies to development in San José as soon as possible; and
4. City fulfillment of its commitment to the ACCC and furtherance of its Climate Smart goals.

Next Steps
Pending City Council approval of the proposed reach code, the reach code would be implemented with existing staff and resources with the following next steps:

1. Submit reach code to the CEC for review and approval.
2. File the CEC-approved reach code with the California Buildings Standards Commission.
3. Work with NBI and regional cities to develop implementation resources, such as trainings and checklists, for City staff.
4. Implement San José 's reach code starting January 1, 2020.
5. Continue to provide building and transportation electrification educational opportunities to both City staff and the public.
6. Pursue funding opportunities to incentivize all-electric buildings and transportation in San José, such as the SB 1477 BUILD program funding for decarbonization efforts in new construction.
7. Collect and document data on the reach code impact to consider for future reach code updates

EVALUATION AND FOLLOW-UP

Staff will provide progress updates to T&E Committee and City Council on Climate Smart San José activities, including the reach code, on a semi-annual basis.

POLICY ALTERNATIVES

Alternative #1: Adopt a reach code that requires all-electric buildings while maintaining all other proposed reach code provisions.
Pros: An all-electric building requirement would significantly reduce GHG emissions from new construction and supports the State and City GHG emissions reduction goals. All-electric new construction is also supported by the State's cost effectiveness studies. There would be no incremental costs associated with efficiency performance requirements since all-electric buildings would not be required to go further than the base 2019 Building Code.
Cons: This approach would rapidly transition construction to all-electric with no flexibility.
Reason for not recommending: This approach would offer less flexibility for development as it continues to transition to all-electric in a still emerging and developing marketplace.

Alternative #2: Adopt a reach code that increases energy efficiency requirements for non-residential mixed fuel buildings to the maximum allowable under the 2019 Non-residential New Construction Cost Effectiveness Study and increases EVCI requirements for non-residential and multi-family developments while maintaining all other proposed reach code provisions.
Pros: Increased energy efficiency requirements for non-residential mixed fuel buildings would have a greater impact on GHG emissions due to increased efficiency. Requiring increased energy

efficiency requirements for mixed fuel buildings would also send a stronger signal to more rapidly transition to all-electric buildings.
Cons: This would result in an increased construction cost for mixed fuel buildings.
Reason for not recommending: There are concerns about increasing construction costs for mixed fuel buildings.

PUBLIC OUTREACH

The City established its Reach Code webpage (www.sjenvironment.org/reachcode) in May 2019, which includes FAQs as well as a pathway to receive updates and to sign up for stakeholder meetings. City staff reached out to over 250 stakeholders and presented at seven public meetings since May 2019.

This memorandum will be posted on the City's website for the September 9, 2019 T&E agenda as well on the September 17, 2019 City Council's Agenda website.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the Department of Transportation, Department of Community Energy, Housing Department, Office of Economic Development, and Public Works.

FISCAL/POLICY ALIGNMENT

The reach code components align with the Climate Smart San José strategies and the City's Envision 2040 General Plan approved by City Council.

CEQA

Categorically Exempt, File No. PP19-067, CEQA Guidelines Section 15308, Actions by Regulatory Agencies for Protection of the Environment.

/s/
ROSALYNN HUGHEY
Director, Planning, Building, and Code Enforcement

/s/
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Director, Environmental Services

For questions, please contact Ken Davies, Deputy Director, at (408) 975-2587.

Attachments:
Attachment A – Reach Code Efforts in Other Jurisdictions
Attachment B – Bay Area All-Electric Development Projects
Attachment C – Redlined Draft Reach Code Components
Attachment D – San José Reach Code Ordinance
Attachment E – Summary of San José Reach Code Components

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[1] Smith, Kathryn Exon. (2018, May 31). After Coyote Creek, Is San Jose Ready for Future Floods? San Francisco Bay Area Planning and Urban Research Association. Retrieved from https://www.spur.org/news/2018-05-31/after-coyote-creek-san-jose-ready-future-floods

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CITY OF SAN MATEO
Regular Meeting Agenda
September 3, 2019
7:00 PM

City Hall Council Chamber
330 W. 20th Avenue
San Mateo CA 94403

COUNCIL MEMBERS
Diane Papan, Mayor
Maureen Freschet, Deputy Mayor
Rick Bonilla
Joe Goethals
Eric Rodriguez

AGENDA ITEM

4. Local Amendments to the California Energy and Green Building Code – Ordinance Adoption

Adopt an Ordinance to amend San Mateo Municipal Code Chapter 23.24, "Energy Code," and an ordinance to amend Chapter 23.70, "Green Building Code," to make local amendments to the State Energy and Green Building Codes.

Ordinance Introduced on August 19, 2019

Agendas are posted on the City's website on the Friday preceding each Council Meeting. Background material can be viewed at City Hall or on the City's website www.cityofsanmateo.org. Any supplemental material distributed to the Council after the posting of the agenda will be available for review in the City Clerk's Office.

City Council meetings are broadcast live at 7:00 p.m. on Cable Channel 27 for Comcast, Channel 26 for Astound, and Channel 99 for AT&T customers. For transmission problems during the broadcast, please call (650) 522-7099. For all other broadcast comments, call (650) 522-7040, Monday-Friday, 8 a.m. - 5 p.m.

In compliance with the Americans with Disabilities Act, those with disabilities requiring special accommodations to participate in this meeting may contact the City Clerk's Office at (650) 522-7040 or polds@cityofsanmateo.org. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

CITY OF SAN MATEO
ORDINANCE NO. 2019-__

AMENDING CHAPTER 23.24, "ENERGY CODE," OF TITLE 23, "BUILDING AND CONSTRUCTION," OF THE SAN MATEO MUNICIPAL CODE TO ADOPT THE CALIFORNIA ENERGY CODE, 2019 EDITION, WITH LOCAL AMENDMENTS

WHEREAS, the California Energy Code, 2019 Edition, Title 24, Part 6 of the California Code of Regulations has been released by the State and needs to be adopted by local jurisdictions; and

WHEREAS, The City's Climate Action Plan recommended that the City review local amendments to the California Energy Code to promote increased energy efficiency and the use of renewable energy sources; and

WHEREAS, The City has completed an analysis and has determined that the requirements of the local amendments to the California Energy Code would provide a positive cost benefit to new construction within the City of San Mateo; and

WHEREAS, California Health and Safety Code Section 17958 requires that the City, in order to make local amendments, find that the local amendments are reasonably necessary due to local climatic, geographical, or topographical conditions; and

WHEREAS, The City's Section 17958 findings are attached as Exhibit A to this Ordinance;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAN MATEO CALIFORNIA ORDAINS AS FOLLOWS:

Section 1. Chapter 23.24, Energy Code," of the San Mateo Municipal Code is hereby amended to read:

Chapter 23.24 – Energy Code

Sections:

23.24.010 Adoption

(a) The California Energy Code, 2019 Edition, Title 24, Part 6 of the California Code of Regulations, as adopted and amended by the State of California, hereinafter called "Energy Code," is adopted as the rules, regulations and standards within this City as to all matters therein except as hereinafter modified or amended for so long as the 2019 Edition of the Building Code is in effect;

(b) One copy of the Energy Code shall at all times be kept on file in the office of the City Clerk.

23.24.020 Local Amendment to Definitions

Subchapter 1, "All Occupancies – General Provisions," Section 100.1(b), of the state Energy Code is amended to include the following definitions:

All-Electric building or all-electric design is a building or building design that uses a permanent supply of electricity as the only source of energy for space conditioning (including heating and cooling), water heating (including pools and spas), cooking appliances, and clothes drying appliances, and has no natural gas or propane plumbing installed at the building.

Mixed-fuel building or mixed-fuel design is a building or building design that uses natural gas or propane as fuel for space heating, water heating (including pools and spas), cooking appliances or clothes drying appliances or is plumbed for such equipment.

Accessory building, shall have the meaning set forth in Section 27.04.010 of the City of San Mateo Municipal Code.

23.24.030 Local Amendment Regarding Mandatory Solar Installations

Subchapter 5—"Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," Section 140.0(b), of the state Energy Code is amended to include:

A. Solar photovoltaic systems shall be installed as follows:

1. New residential buildings four stories or more shall provide a minimum of a 3-kilowatt photovoltaic system.

2. New non-residential buildings with less than 10,000 square feet of gross floor area shall provide a minimum of a 3- kilowatt photovoltaic system.

3. New non-residential buildings greater than or equal to 10,000 square feet of gross floor area shall provide a minimum of a 5-kilowatt photovoltaic system.

Exception to Section A: As an alternative to a solar photovoltaic system, all of the building types listed above may provide a solar hot water system (solar thermal) with a minimum collector area of 40 square feet.

23.24.040 Local Amendment Regarding All-Electric Buildings or Energy Efficiency Standards for Mixed-Fuel Office Use Buildings

(a) All-electric buildings with office use are required to meet the established energy efficiency standards in Subchapter 5, "Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," of the state Energy Code.

(b) Mixed-fuel buildings with office use shall comply with increased energy efficiency standards. Subchapter 5, "Nonresidential, High-rise Residential, and Hotel/Motel Occupancies – Performance and Prescriptive Compliance Approaches for Achieving Energy Efficiency," of the state Energy Code is amended to require increased energy efficiency standards in the performance or prescriptive compliance approaches as follows:

(1) Performance Approach: Energy Code Section 140.1 "Performance Approach: Energy Budgets" is amended to include the following performance standards for mixed-fuel buildings with office use:

A newly constructed mixed-fuel building complies with the performance approach if the energy budget calculated for the Proposed Design Building under Subsection (b) has a compliance margin exceeding the energy budget calculated for the Standard Design Building under Subsection (a) of at least the value specified for the corresponding occupancy type in Table 140.1-A below.

Table 140.1-A Mixed-fuel Building Energy Budgets Adjustments

Occupancy Type	Compliance Margin Exceeding State Code
Office	10%
All Other occupancies	0%

(2) Prescriptive Approach: Energy Code Section 140.2 "Prescriptive Approach" is amended to include the following prescriptive standards for mixed-fuel buildings with office use:

(A) Install fenestration with a solar heat gain coefficient no greater than 0.22.

(B) Limit the fenestration area on east-facing and west-facing walls to one-half of the average amount of north-facing and south-facing fenestration.

(C) Design Variable Air Volume (VAV) box minimum airflows to be equal to the zone ventilation minimums.

(D) Include economizers and staged fan control in air handlers with a mechanical cooling capacity ≥ 33,000 Btu/h

(E) Reduce the total lighting power density (Watts/ft^2) by ten percent (10%) from that required from Table 140.6-C.

(F) Improve lighting without claiming any Power Adjustment Factor credits:

(i) Control to daylight dimming plus off per Section 140.6(a)2H, and

(ii) Install Occupant Sensing Controls in Large Open Plan Offices per Section 140.6(a)2I, and

Perform Institutional Tuning per Section 140.6(a)2J.

23.24.050 Local Amendment Regarding All-Electric Buildings or Energy Efficiency Standards for Mixed-Fuel Single Family and Duplex Buildings

(a) Accessory buildings and low-rise multifamily buildings are required to meet the established energy efficiency standards in Subchapter 8, "Low-rise Residential Buildings – Performance and Prescriptive Compliance Approaches," of the state Energy Code.

(b) All-electric single-family and duplex buildings are required to meet the established energy efficiency standards in Subchapter 8, "Low-rise Residential Buildings – Performance and Prescriptive Compliance Approaches," of the state Energy Code.

(c) Mixed-fuel single family and duplex buildings shall comply with increased energy efficiency standards. Subchapter 8, "Low-rise Residential Buildings – Performance and Prescriptive Compliance Approaches," of the state Energy Code is amended to require increased energy efficiency standards in the performance and prescriptive compliance approaches as follows:

(1) Performance Approach: Section 150.1.b. "Performance standards" is amended to include the following performance standard for mixed-fuel single family and duplex buildings:

The Energy Efficiency Design Rating calculated for the Proposed Design Building shall be at least 2.5 EDR points less than the Energy Efficiency Design Rating calculated for the Standard Design Building.

(2) Prescriptive Approach: Section 150.1.c. "Prescriptive standards/component packages" is amended to include the following prescriptive standards for mixed-fuel single-family and duplex buildings:

(A) Duct System Sealing and Leakage Testing. The duct systems shall exceed the minimum mandatory requirements of Section 150.0(m)11 A and B such that the total duct system leakage shall not exceed 2 percent of the nominal system air handler air flow.

(B) Slab floor perimeter insulation shall be installed with an R-value equal to or greater than R10. The minimum depth of concrete-slab floor perimeter insulation shall be 16 inches or the depth of the footing of the building, whichever is less.

(C) The hot water distribution system shall be designed and installed to meet minimum requirements for the basic compact hot water distribution credit according to the procedures outlined in the 2019 Reference Appendices RA4.4.6.

(D) Central Fan Integrated Ventilation Systems. The duct distribution system shall be designed reduce external static pressure to meet a maximum fan efficacy equal to:

(i) Gas Furnaces: 0.35 Watts per cfm

(ii) Heat Pumps: 0.45 Watts per cfm, according to the procedures outlined in the 2019 Reference Appendices RA 3.3.

(E) For buildings with either space heating or water heating systems fueled by gas or propane, also include:

(i) 5 kWh battery of battery storage, OR

(ii) A solar water heating system with a minimum solar savings fraction of 0.20.

23.24.060 Modifications

If an applicant for a Covered Project believes that circumstances exist that make it infeasible to meet the requirements of this Chapter, the applicant may request a modification as set forth in Section 23.06.015 of the Municipal Code. In applying for the modification, the burden is on the Applicant to demonstrate infeasibility to the City's Building Official.

23.24.070 Expiration

These local code amendments shall sunset when the California Energy Code, 2019 Edition, is no longer in effect.

Section 2. The Council adopts the findings supporting the local amendments to the California Energy Code, 2019 Edition, attached hereto as Exhibit A and incorporated herein by reference.

Section 3. Environmental determination. In accordance with CEQA Guidelines Section 15308, adoption of this Ordinance is categorially exempt from CEQA, because it imposes stricter energy efficiency requirements and is a regulatory action authorized by state law and intended to protect the environment.

Section 4. Severability. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it should have adopted the ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

Section 5. Publication. This ordinance shall be published in summary in the San Mateo Daily Journal, posted in the City Clerk's Office, and posted on the City's website, all in accordance with Section 2.15 of the City Charter.

Section 6. Legislative history and effective date. This ordinance was introduced on August 19, 2019, and adopted on Click or tap to enter a date., and shall be effective on January 1, 2020

Exhibit A

FINDINGS SUPPORTING LOCAL AMENDMENTS TO CALIFORNIA ENERGY CODE, 2019 EDITION

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions in the uniform codes that are published in the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions in the uniform codes and published in the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970, and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation, including amendments made only for administrative consistency, do not require findings.

Code: California Energy Code

Section(s)	Title	Add	Deleted	Amended	Justification (See below for keys)
Subchapter 1, Section 100.1	Definitions and Rules of Construction	X			A, B
Subchapter 5, Section 140.0	Performance and Prescriptive Compliance Approaches	X		X	A, B
Subchapter 8, Section 150.1	Performance and Prescriptive Compliance Approaches for Low-Rise Residential Buildings	X		X	A, B

Key to Justification Supporting Amendments to Title 24 of the California Code of Regulations

A. This amendment is justified on the basis of a local **climatic** condition. Failure to address and significantly reduce greenhouse gas (GHG) emissions could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101 (Bayshore Freeway), particularly the mapped Flood Hazard areas of the City. Energy efficiency and the use of renewable energy sources are key components in reducing GHG emissions, and construction of more energy efficient buildings with dedicated renewable energy installations can help the City of San Mateo reduce its share of the GHG emissions that contribute to climate change. The burning of fossil fuels used in the generation of electric power and heating of buildings contributes to climate change, which could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101.

B. Energy efficiency enhances the public health and welfare by promoting the **environmental** and economic health of the City through the design, construction, maintenance, operation and deconstruction of buildings and sites by incorporating green practices into all development. The provisions in this Chapter are designed to achieve the following goals:
(a) Increase energy efficiency in buildings;

(b) Increase resource conservation;

(c) Provide durable buildings that are efficient and economical to own and operate;

(d) Promote the health and productivity of residents, workers, and visitors to the city;

(e) Recognize and conserve the energy embodied in existing buildings; and

(f) Reduce disturbance of natural ecosystems.

CITY OF SAN MATEO
ORDINANCE NO. 2019-__

AMENDING CHAPTER 23.70, "GREEN BUILDING CODE," OF TITLE 23, "BUILDING AND CONSTRUCTION," OF THE SAN MATEO MUNICIPAL CODE TO ADOPT THE CALIFORNIA GREEN BUILDING STANDARDS CODE, 2019 EDITION, WITH LOCAL AMENDMENTS

WHEREAS, the California Green Building Standards Code, 2019 Edition, Title 24, Part 11 of the California Code of Regulations has been released by the State and needs to be adopted by local jurisdictions; and

WHEREAS, the City's Climate Action Plan recommended that the City review local amendments to the California Green Building Standards Code to promote clean transportation fuels and increase electric vehicle adoption; and

WHEREAS, California Health and Safety Code Section 17958 requires that the City, in order to make local amendments, find that the local amendments are reasonably necessary due to local climatic, geographical, or topographical conditions; and

WHEREAS, the City's Section 17958 findings are attached as Exhibit A to this Ordinance;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAN MATEO CALIFORNIA ORDAINS AS THAT:

Section 1. Chapter 23.70, "Green Building Code," is hereby amended to read:

Chapter 23.70 -Green Building Code

23.70.010 Adoption

(a) The California Green Building Standards Code, 2019 Edition, Title 24, Part 11 of the California Code of Regulations, as adopted and amended by the State of California, hereinafter called "Green Building Code," is adopted as the rules, regulations and standards within this City as to all matters therein except as hereinafter modified or amended;

(b) One copy of the Green Building Code shall at all times be kept on file in the office of the City Clerk.

23.70.020 Local Amendments to Definitions

(a) The definitions contained Chapter 2, "Definitions" of the state Green Building Code are adopted.

(b) The most commonly used definitions are set forth below:

Electric Vehicle (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

Electric Vehicle Charging Space (EV Space). A space intended for future installation of EV charging equipment and charging of electric vehicles.

Electric vehicle supply equipment (EVSE). The conductors, including the undergrounded, grounded, and equipment grounding conductors and the electric vehicles connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between premises wiring and the electric vehicle.

(c) Chapter 2 "Definitions," Section 202 of the state Green Building Code is amended to include the following definition:

Level 2 EVSE. An EVSE capable of charging at 30 amperes or higher at 208 or 240 VAC. An EVSE capable of simultaneously charging at 30 amperes for each of two vehicles shall be counted as two Level 2 EVSE.

23.70.030 Local Amendment Regarding Electric Vehicle Charging For New One- and Two-Family Dwellings and Town-Houses

(a) Green Building Code Section 4.106.4.1, "New one- and two-family dwellings and town-houses with attached private garages," is amended to require the Tier 1 and Tier 2 requirement per Section A4.106.8.1 and A4.106.8.1.1 of the Green Building Code as follows:

(1) Tier 1 and Tier 2. For each dwelling unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Section 4.106.4.1. The branch circuit and associated overcurrent protective device shall be rated at 40 amperes minimum. Other electrical components, including a receptacle or blank cover, related to this section shall be installed in accordance with the *California Electrical Code*.

A4.106.8.1.1 Identification. The service panel or sub-panel circuit directory shall identify the overcurrent protective device designated for future EV charging purposes as "EV READY" in accordance with the *California Electrical Code*. The receptacle or blank cover shall be identified as "EV READY."

23.70.040 Local Amendment Regarding Electric Vehicle Charging For New Multifamily Residential Construction

(a) Green Building Code Section 4.106.4.2, "New multifamily dwellings," is amended to require the Residential Voluntary Tier 1 Measure for EV charging space calculation per Section A4.106.8.2, "New multifamily dwellings," as follows:

Tier 1: 15 percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future electric vehicle supply equipment (EVSE). Calculations for required number of EV spaces shall be rounded up to the nearest whole number.

Requirements related to EV spaces for multifamily residential projects can be found in Green Building Code Sections 4.106.4.2.3 "Single EV space required" and 4.106.4.2.4 "Multiple EV spaces required."

23.70.050 Local Amendment Regarding Electric Vehicle Charging for New Non-residential Construction

(a) Green Building Code Section 5.106.5.3.3, "EV charging space calculation," is amended to require increased standards for new non-residential buildings with ten parking spaces or more as follows:

(1) Ten percent of the total number of parking spaces provided for all types of parking facilities shall be EV spaces capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

(2) Five percent of the total number of parking spaces provided for all types of parking facilities shall be equipped with Level 2 EVSE. Calculations for the required number of spaces with Level 2 EVSE shall be rounded up to the nearest whole number.

Requirements related to EV spaces for nonresidential projects can be found in Green Building Code Sections 5.106.5.3.1 "Single charging space requirements" and 5.106.5.3.2 "Multiple charging space requirements."

23.70.060 Local Amendment Regarding Electric Vehicle Space Design Requirements

Green Building Code Section 4.106.4.2, "New multifamily dwellings," and Section 5.106.5.3.3, "EV charging space calculation" are amended to require EV space design requirements as follows:

For all projects subject to Title 24, Part 2, Chapter 11B, construction documents shall indicate how many accessible EV spaces would be required under the California Code of Regulations Title 24, Chapter 11B, if applicable, in order to convert EV spaces to include EVSE. Construction documents shall also demonstrate that the facility is designed such that compliance with accessibility standards, including Chapter 11B accessible routes, will be feasible for the required accessible EV Space at the time of EVSE installation. Surface slope for any area designated for accessible EV Space shall meet slope requirements in Chapter 11B and vertical clearance requirements in Chapter 11B at the time of original building construction.

23.70.070 Modifications

If an applicant for a Covered Project believes that circumstances exist that make it infeasible to meet the requirements of this Chapter, the applicant may request a modification set forth in Section 23.06.015 of the Municipal Code. In applying for the modification, the burden is on the Applicant to show infeasibility. The Building Official may grant a modification to exempt the applicant from these requirements if he or she makes either of the following findings:

1. Where there is insufficient electrical supply.

Where there is evidence substantiating that additional local utility infrastructure design requirements, directly related to the implementation of these requirements, may have a significant adverse impact the construction cost of the project.

23.70.080 Expiration

These local code amendments shall sunset the when the California Green Building Standards Code, 2019 Edition, is no longer in effect.

Section 2. The Council adopts the findings supporting the local amendments to the California Green Building Standards Code, 2019 Edition, attached hereto as Exhibit A and incorporated herein by reference.

Section 3. Environmental determination. In accordance with CEQA Guidelines Section 15308, adoption of this Ordinance is categorically exempt from CEQA because adoption of these green building standards is authorized by the state and is intended to assure the protection of the environment by reducing greenhouse gas emissions.

Section 4. Severability. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it should have adopted the ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

Section 5. Publication. This ordinance shall be published in summary in the San Mateo Daily Journal, posted in the City Clerk's Office, and posted on the City's website, all in accordance with Section 2.15 of the City Charter.

Section 6. Legislative history and effective date. This ordinance was introduced on August 19, 2019, and adopted on Click or tap to enter a date., and shall be effective on January 1, 2020..

Exhibit A

FINDINGS SUPPORTING LOCAL AMENDMENTS TO CALIFORNIA GREEN BUILDING STANDARDS CODE, 2019 EDITION

Section 17958 of the California Health and Safety Code provides that the City may make changes to the provisions in the uniform codes that are published in the California Building Standards Code. Sections 17958.5 and 17958.7 of the Health and Safety Code require that for each proposed local change to those provisions in the uniform codes and published in the California Building Standards Code which regulate buildings used for human habitation, the City Council must make findings supporting its determination that each such local change is reasonably necessary because of local climatic, geological, or topographical conditions.

Local building regulations having the effect of amending the uniform codes, which were adopted by the City prior to November 23, 1970, were unaffected by the regulations of Sections 17958, 17958.5 and 17958.7 of the Health and Safety Code. Therefore, amendments to the uniform codes which were adopted by the City Council prior to November 23, 1970, and have been carried through from year to year without significant change, need no required findings. Also, amendments to provisions not regulating buildings used for human habitation, including amendments made only for administrative consistency, do not require findings.

Code: California Green Building Standards Code					
Section(s)	**Title**	**Add**	**Deleted**	**Amended**	**Justification (See below for keys)**
Chapter 4, Section 4.106.4.1	New one- and two-family dwellings and town-houses with attached private garages			X	A
Chapter 4, Section 4.106.4.2	New multifamily dwellings			X	A
Chapter 5, Section 5.106.5.3.3	EV charging space calculation			X	A

Key to Justification Supporting Amendments to Title 24 of the California Code of Regulations

A. This amendment is justified on the basis of a local **climatic** condition. Failure to address and significantly reduce greenhouse gas (GHG) emissions could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101 (Bayshore Freeway), particularly the mapped Flood Hazard areas of the City. Electric vehicle charging infrastructure is a key component in reducing GHG emissions, and EV charging installations can help the City of San Mateo reduce its share of the GHG emissions that contribute to climate change. Electric vehicle charging infrastructure will contribute to the reduction of GHG emissions by supporting the demand for electric vehicles and the associated EV chargers. The burning of fossil fuels used in the generation of electric power and heating of buildings contributes to climate change, which could result in rises in sea level, including in San Francisco Bay, that could put at risk City homes and businesses, public facilities, and Highway 101. However, electric power will become cleaner over time as utilities achieve more stringent Renewable Portfolio Standard requirements, and translate the clean energy benefits to electric vehicles.

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date:	02/03/2020
Subject:	RECOMMEND SUPPORT for the federal Green Act.
Submitted For:	Jody London, Sustainability Coordinator
Department:	Conservation & Development
Referral No.:	N/A
Referral Name:	N/A
Presenter:	Jody London, DCD **Contact:** Jody London (925)674-7871

Referral History:

N/A

Referral Update:

Contra Costa County has demonstrated its commitment to addressing the changing climate through adoption of its Climate Action Plan, joining the We Are Still In coalition, taking the Carbon Free by 2033 pledge, and related actions. The County is in the process of updating its Climate Action Plan to reflect current State policies and goals and to align the Climate Action Plan with the County's General Plan.

The House of Representatives has released a set of bills, the Green Act, that take action on climate issues. They include: an extension of the electric vehicle tax credit; a new energy storage tax credit; expansion of energy financing; an offshore wind tax credit; energy efficiency incentives; and wind and solar tax credits. These incentives are for residential, commercial, and utility-scale investments. All except for the offshore wind tax credit would be helpful for Contra Costa County and its residents and businesses. The energy financing measure is co-authored by Representative Thompson. Attachment A is a summary memo of the Green Act. Attachment B is summary bill language.

Recommendation(s)/Next Step(s):

RECOMMEND SUPPORT for the federal Green Act.

Fiscal Impact (if any):

While there is no direct fiscal impact to the County, passage of the Green Act would potentially make available to County residents and businesses tax credits for investments in a range of technologies that will reduce the impacts of climate change.

Attachments

Item 11. Attachment A - Green Act Overview Memo

Item 11. Attachment B - Green Act Summary

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Background Memo on Clean Energy Tax Credit Package

Request:
(1) Reach out to Speaker Pelosi's office and request that the Speaker prioritize key clean energy tax incentives in a government funding bill that must pass by December 20th.
(2) Additionally, we are recommending outreach to targeted Senators and Representatives asking them to weigh in directly with Senate and House leadership respectively to encourage them to prioritize clean energy tax incentives in end-of-year government funding legislation.

Timing: Outreach to members of Congress needs to happen as soon as possible - ideally by early-mid December. Congress must pass a government funding bill by December 20th.

For detailed outreach information, please contact Meredith Epstein at mepstein@ceres.org

Background:
The House Committee on Ways and Means released on November 19 the GREEN Act, which is a discussion draft of clean energy tax incentive bills that would renew or extend climate-friendly tax incentives. We see the opportunity to get a clean energy tax credit package through Congress as the best near-term chance to pass legislation that will significantly help to reduce greenhouse gas emissions. **In fact - passing a version of this bill could be the most significant piece of climate-related legislation to go through Congress in close to 10 years. As such, it is an enormous priority for BICEP and climate advocates.**

The GREEN Act will likely not go through regular committee markup, but will rather serve as a menu of options for Congressional leadership to pick from and bargain over. Ultimately, whether the package (and individual provisions) becomes law will come down to whether it gets included in an end of the year deal that gets brokered by Congressional leadership. **This is where businesses and investors come in. We think our best shot of getting the package into the end of the year deal is if leadership makes it a priority for the package to be included.**

Impact of the GREEN Act:
Recent analysis from the Rhodium Group has found that the GREEN Act would help contribute to a decrease of 100 million metric tons of greenhouse gas emissions by 2030. Enacting the provisions of the draft bill would spur deployment of up to nearly 60 gigawatts (GW) of new non-hydro renewable generation by 2030. The market share of these clean energy resources can at least double to 19-26% of total generation, up from 10% today. By extending the EV tax credit, 3.4 to 5.7 million more electric vehicles could be sold between today and 2030. This would accelerate EVs to 38% of all light-duty vehicle sales in 2030, up from just 3% in 2018.

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Some Key Pieces of the GREEN Act:

Driving America Forward Act (H.R. 2256)
The Driving America Forward Act (with 102 cosponsors), is a bill to modify the electric vehicle tax credit by raising the volumetric cap from 200,000 to 600,000 vehicles eligible for a $7000 consumer credit for each manufacturer. This modification to the EV tax credit is critical to continue the growth of a promising new manufacturing sector. As battery costs continue to decline, electric vehicles are projected to be cost competitive on an upfront cash basis with internal combustion engine vehicles by the mid 2020's. In the meantime, it is critical to ensure that this burgeoning industry remains strong. The Senate version of the bill has bipartisan support and is cosponsored by Senator Stabenow, Senator Alexander, Senator Peters, and Senator Collins. One stumbling block to the bill is that it has a high price tag and full-throated opposition from Senator Barrasso.

Energy Storage Tax Incentive and Deployment Act of 2019 (H.R. 2096)
Energy storage can improve electric grid flexibility, reliability, and resilience and allow for the shift of electricity supply during periods of peak-demand. It also reduces risk by increasing resource options and helping the grid to react to unexpected changes in the system. In addition, energy storage enables greater renewable energy integration by increasing full-time availability of intermittent resources, providing emergency backup power, and aiding in stability during times of high energy use.

Currently, energy storage can only qualify for the federal investment tax credit (ITC) when coupled with a solar power project. This restriction makes it difficult for businesses and investors to take advantage of the range of energy storage applications across different energy-producing technologies, and ultimately it limits energy storage deployment. Making energy storage independently eligible for a 30% ITC (as proposed in this bipartisan legislation) would have a transformative impact; resolving the uncertainty facing businesses and energy storage providers, spurring private sector investment, creating jobs, and accelerating the transition to renewable energy.

Offshore WIND Act (H.R. 3473)
Extending the ITC for offshore wind would help provide policy certainty at this critical time in offshore wind development and spur capital investment to harness the abundant energy available offshore. The ITC will enable the offshore wind energy to create tens of thousands of clean energy jobs and produce renewable domestic energy. Offshore wind remains more expensive than onshore wind, but has significant benefits, including higher capacity factors and proximity to load centers (especially along the East Coast). The recent delay in the permitting process for a major offshore wind farm by the Bureau of Ocean Energy Management raises specific concerns about the ability of first-mover projects to take advantage of the existing tax credit for wind energy - providing further justification for a dedicated tax incentive structure targeted at offshore wind.

Energy Efficiency Incentives
Energy efficiency improvements reduce emissions, save businesses and residential customers money, and create jobs. In fact, in the U.S. low carbon economy, energy efficiency has created

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more jobs than any other sector. The GREEN Act contains important updates to longstanding efficiency incentives for residential units, commercial buildings, and manufactured homes. These updates increase the value of the incentives and make them easier to access. In particular, the commercial buildings incentive is a great opportunity for companies to earn tax credits in return for key efficiency upgrades.

Financing Our Energy Future Act (H.R.3249/S.1841)
Master limited partnerships (MLPs) are a business structure that is taxed as a partnership at the shareholder level as opposed to the shareholder and corporate level. MLPs are appealing to investors and attract new capital. Currently, the tax code only makes MLPs available to energy projects that rely on fossil fuels. The bipartisan *Financing Our Energy Future Act,* introduced by Senators Coons and Moran and Representatives Thompson and Estes, would level the playing field and make MLPs available to all sources of domestic energy, including renewable energy sources such as wind, solar, and hydropower as well as energy technologies such as energy storage, carbon capture, and energy efficient buildings. This change to the tax code would spur new private capital investments in clean energy by giving clean energy businesses the same advantages already given to fossil fuel businesses.

Extending Tax Credits for Solar and On-shore Wind
The Green Act includes a five year extension for solar and onshore wind before the tax credit begins to phase down over two years. These extensions will ensure that clean electricity continues to be deployed at scale over the coming half decade - a decade in which the IPCC tells us we must reduce emissions by 45 percent.

The Republican Caucus is only likely to agree to this extension in return for the inclusion of technical corrections to the recently passed tax reform bill - the Tax Cuts and Jobs Act. This would significantly aid in deployment of renewable energy and greatly aid in reducing carbon emissions. It is also the biggest lift and will be the hardest piece to negotiate with Senate Majority Leader McConnell. Our intelligence suggests that Democrats in Congress would be willing to allow passage of the technical corrections in return for inclusion of the tax credits for solar and wind power.

The GREEN Act also includes numerous other clean energy incentives including tax credits for previously owned EVs, commercial vehicles, and buses as well as many others.

Ways to Engage:
Outreach to Speaker Pelosi: Making the clean energy tax credit package a priority for Democratic leadership will be essential to getting the package included in end-of-year horse-trading. It is especially critical that Speaker Pelosi makes it a top priority. Therefore, we recommend that companies and trade associations reach out directly to Speaker Pelosi's office through meetings, phone calls, or emails to ask her to prioritize the package. The Speaker is also more likely to make the case for the package if she hears from her caucus that this is important to them.

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Request for Speaker Pelosi & House Leadership: Include as robust a package of clean energy tax incentives as possible in an end-of-year government funding bill. If the negotiations over tax provisions between Republicans and Democrats includes technical corrections to the recently passed tax reform bill (an extremely high priority for Republicans), it is critical to also include an extension of the existing solar and on-shore wind tax credits.

Outreach to House Democrats asking them to weigh in with Speaker Pelosi: Another helpful avenue for engagement would be to reach out to other House Democrats (especially in purple districts) to request that they ask Speaker Pelosi in member to member interactions to make the package a priority.

Outreach to targeted Senate Republicans asking them to weigh in with Majority Leader McConnell and Senate Finance Chairman Grassley: Softening the ground with Senate Majority leadership will help pave the way for negotiations that are favorable for clean energy incentives. Hearing from their caucus in support of bipartisan provisions could help ease the way for a deal with the broadest possible array of clean energy incentives.

Request for Majority Leader McConnell and Senate Finance Chairman Grassley: Support as many clean energy incentives as possible in an end-of-year government funding bill.

Risks of Engagement:
The outreach that we are suggesting is all private with no media or public-facing component and it is our assessment that there is little to no risk involved. There is opposition to the EV tax credit from Sen. Barrasso and the Heritage Foundation, but strong bipartisan support for it as well.

Opportunities for Engagement:
In addition to the clean energy and climate benefits of getting clean energy tax credit bills passed, there is an opportunity to build positive relationships with lawmaker offices. Supporters of the clean energy tax credit package include environmental groups, renewable energy businesses, and many major companies including the BICEP Network. Auto companies also support the EV tax credit.

Questions?
Feel free to reach out to Meredith Epstein (mepstein@ceres.org) if you have any questions.

GROWING RENEWABLE ENERGY AND EFFICIENCY NOW ("GREEN") ACT
DISCUSSION DRAFT -- SECTION BY SECTION DESCRIPTION
November 19, 2019

TITLE I – RENEWABLE ELECTRICITY AND REDUCING CARBON EMISSIONS

Sec. 101. Extension of credit for electricity produced from certain renewable resources (§§ 45 and 48(a)(5)).

The provision extends the production tax credit (PTC), which allows energy producers to claim a credit based on electricity produced from renewable energy resources. In most cases, including producers electing into the § 48 investment tax credit, these credits are extended for facilities for which construction begins by the end of 2024.

Most facilities: The PTC for the following facilities is revived and extended through the end of 2024:

- closed loop biomass,
- open loop biomass,
- landfill gas (municipal solid waste),
- trash (municipal solid waste),
- qualified hydropower, and
- marine and hydrokinetic renewable energy facilities.

Geothermal: The PTC for geothermal energy is revived and extended through the end of 2019. Separately, geothermal is made eligible for a higher investment tax credit under § 48 starting in 2020. *See* sec. 102 of the discussion draft.

Wind: The PTC for wind energy is preserved at the current phaseout levels for 2018 and 2019 (60% and 40%, respectively), and then is extended at 60% through the end of 2024.

Sec. 102. Extension and modification of energy credit (§ 48).

The provision extends the investment tax credit (ITC), which allows taxpayers to claim a credit for up to 30% of the cost of qualified energy property. In most cases, the provision extends the credit at full value for property for which construction begins by the end of 2024, and then phases down over two years.

Solar: The ITC for solar energy property is extended at 30% through the end of 2024. The ITC then phases down to 26% in 2025, 22% in 2026, and 10% thereafter.

Geothermal: The ITC for geothermal energy property is modified to match the credit timeline for solar energy property. Therefore, the ITC for geothermal energy property is 30% through the end of 2024. The ITC then phases down to 26% in 2025, 22% in 2026, and 10% thereafter. Geothermal will not be eligible for the PTC after 2019. *See* § 101 of this discussion draft.

Other currently eligible property: The ITC for fiber-optic solar equipment, fuel cell property, microturbine property, combined heat and power property, and small wind energy property is extended at 30% through the end of 2024. The ITC then phases down to 26% in 2025 and 22% in 2026.

Newly eligible property: The ITC is expanded to include energy storage technology, waste energy recovery property, qualified biogas property, and linear generators. These technologies are eligible for the 30% ITC through the end of 2024. The ITC then phases down to 26% in 2025 and 22% in 2026. These technologies are briefly described as follows:

- Energy storage technology uses batteries and other such technology to store energy for conversion to electricity and has a minimum capacity of 20 kWh, or to store energy to heat or cool a structure.
- Waste energy recovery property generates electricity solely from heat (such as exhaust heat) from buildings or equipment the primary purpose of which is not the generation of electricity and has a maximum capacity of 50 MW. If property would qualify as both waste energy recovery property and combined heat and power property, the taxpayer elects between the two.
- Biogas property converts biomass into a gas (which is at least 52% methane) for productive use, such as generating electricity. Electricity produced from property receiving an ITC under this provision is not also eligible for benefit under the PTC.
- Linear generators convert fuel into electricity through electromechanical means using a linear generator assembly without the use of rotating parts. The credit for linear generators is limited to systems with a nameplate capacity of at least 200 kW.

Sec. 103. Extension of credit for carbon oxide sequestration (§ 45Q).

The provision extends the credit for carbon oxide sequestration facilities that begin construction before the end of 2024, a one-year extension.

Sec. 104. Elective payment for energy property and electricity produced from certain renewable resources, etc. (§ 6431).

The provision allows taxpayers to elect to be treated as having made a payment of tax equal to 85% of the value of the credit they would otherwise be eligible for under the ITC or the PTC. Rather than opting to carry forward credits to years when their credits exceed their tax liability, taxpayers can take a reduced credit and request a refund of any resulting overpayment of tax. This allows entities with little or no tax liability to accelerate utilization of these credits.

Tribal governments are treated as making a payment equal to the full value of the credit, instead of 85%.

Sec. 105. Extension of energy credit for offshore wind facilities (§ 48(a)(5)).

The provision exempts offshore wind facilities that elect into the ITC (rather than the PTC) from reductions in the credit from the onshore wind facility phaseout. The credit expires for facilities that begin construction after the later of 1) the end of 2024 *or* 2) the end of the year that national offshore wind capacity is 3,000 MW above the capacity at the start of 2020. The provision directs the Secretary of the Treasury to issue an annual report starting in January 2024 of the status of the increase in offshore wind capacity.

Sec. 106. Green energy publicly traded partnerships (§ 7704).

The provision would expand the definition of qualified income for publicly traded partnerships from certain income derived from minerals and natural resources to include income derived from green and renewable energy. These additions include income from certain activities related to energy production eligible for the PTC, property eligible for the ITC, renewable fuels, and energy and fuel from certain carbon sequestration or gasification projects eligible for credits under §§ 48B or 45Q.

TITLE II – RENEWABLE FUELS

Sec. 201. Biodiesel and renewable diesel (§§ 40A, 6426, and 6427).

The provision extends the income and excise tax credits for biodiesel and biodiesel mixtures at $1.00 per gallon through 2021 and phases the credit down to $0.75 in 2022, $0.50 in 2023, and $0.33 in 2024. The credit expires at the end of 2024.

The provision also extends the $0.10-per-gallon small agri-biodiesel producer credit through the end of 2024. The provision provides a retroactive extension of these credits for qualified sales occurring between January 1, 2018, and the date of enactment of the provision, and requires the Secretary of the Treasury to issue guidance to provide for a one-time submission of claims related to these credits.

Sec. 202. Extension of excise tax credits relating to alternative fuels (§§ 6426 and 6427).

The provision extends the excise tax credits for alternative fuels and alternative fuel mixtures at the pre-expiration level of $0.50 per gallon through 2021 and phases the credit down to $0.38 in 2022, $0.25 in 2023, and $0.17 in 2024. The credit expires at the end of 2024.

The provision clarifies that for purposes of the alternative fuel mixtures credit, an alternative fuel mixture does not include a mixture that includes liquefied petroleum gas, p-series fuels, compressed or liquefied natural gas, liquefied hydrogen, fuel derived from coal gasification and sequestration, and biomass fuel. The provision provides a retroactive extension of these credits for qualified sales occurring between January 1, 2018, and the date of enactment of the provision, and requires the Secretary of the Treasury to issue guidance to provide for a one-time submission of claims related to these credits.

Sec. 203. Extension of second generation biofuel incentives (§ 40).

The provision extends the second generation biofuel income tax credit through 2024. It also extends the 50% special allowance for depreciation of second generation biofuel plant property placed in service by the end of 2024.

TITLE III – GREEN ENERGY AND EFFICIENCY INCENTIVES FOR INDIVIDUALS

Sec. 301. Extension, increase, and modifications of nonbusiness energy property credit (§ 25C).

The provision extends the § 25C nonbusiness energy property credit to property placed in service by the end of 2024. For expenditures and property placed in service starting in 2020, the provision modifies and expands the credit, including by:

- increasing the percentage of the credit for installing qualified energy efficiency improvements from 10% of the cost to 15%,
- increasing the lifetime cap on credits allowed under this section from $500 to $1,200 and restarting the lifetime limit beginning in 2020,
- updating various standards and associated limits to reflect advances in energy efficiency and removing eligibility of roofs and advanced main air circulating fans, and
- expanding the credit to cover the costs of home energy audits, allowing a credit of 30% of such costs up to a maximum credit of $150.

Sec. 302. Residential energy efficient property (§ 25D).

The provision extends the credit for the cost of qualified residential energy efficient property expenditures, including solar electric, solar water heating, fuel cell, small wind energy, and geothermal heat pumps. The provision extends the full 30% credit for eligible expenditures through the end of 2024. The credit then phases down to 26% in 2025 and 22% in 2026. The credit expires after the end of 2026.

The provision also expands the definition of eligible property to include battery storage technology and energy efficient biomass fuel property. Correspondingly, biomass stoves are removed from § 25C to prevent a double benefit.

Sec. 303. Energy efficient commercial buildings deduction (§ 179D).

The provision extends the 179D energy efficient commercial building deduction through 2024. Starting in 2020, the provision also updates and expands the deduction by increasing the maximum deduction from $1.80 per square foot to $3.00 per square foot (with corresponding increases for the partial deduction). It also changes this maximum from a lifetime cap to a three-year cap.

The provision updates the eligibility requirements so that property must reduce associated energy costs by 30% or more in comparison to a building that meets the ASHRAE standards as of two years prior to the date of construction. Under the currently expired provision, property must reduce energy costs by 50% in comparison to the 2007 ASHRAE standard.

In the case of state or local government buildings, this provision removes the ability to allocate the deduction to the designer. Instead, the bill treats the governmental entity as having made a payment of tax equivalent to 10% of the value of the amount otherwise eligible for a deduction.

Sec. 304. Extension, increase, and modifications of new energy efficient home credit (§ 45L).

The provision extends the § 45L new energy efficient home credit through 2024.

Starting in 2020, the provision expands the maximum credit for eligible new energy efficient homes from $2,000 to $2,500 and makes eligible units with energy expenditures at least 15% below the expenditures of a comparable unit based on the 2018 International Energy Conservation Code standards. It also replaces the eligibility requirements for units eligible for

the $1,000 credit to correspond with the Energy Star Labeled Homes program.

Sec. 305. Modifications to income exclusions for conservation subsidies (§ 136).

The provision excludes from gross income water conservation and storm water management subsidies provided by public utilities, state or local governments, or storm water management providers. This provision applies to payments received starting in 2020.

TITLE IV -- GREENING THE FLEET AND ALTERNATIVE VEHICLES

Sec. 401. Modification of limitations on new qualified plug-in electric drive motor vehicle credit (§ 30D).

The provision expands the qualified plug-in electric drive motor vehicle credit under § 30D to apply a new transition period for vehicle sales of a manufacturer between 200,000 and 600,000 electric vehicles (EVs), under which the credit is reduced by $500. The provision replaces the current phaseout period (which begins at 200,000 vehicles) with a phaseout period that instead begins during the second calendar quarter after the 600,000-vehicle threshold is reached. At the start of the new phaseout period, the credit is reduced by 50% for one quarter and terminates thereafter. For manufacturers that pass the 200,000-vehicle threshold before the enactment of this bill, the number of vehicles sold in between 200,000 and those sold on the date of enactment are excluded to determine when the 600,000-vehicle threshold is reached.

The provision extends the 2-wheeled plug-in electric vehicle credit through 2024. Starting in 2020, it also extends the 3-wheeled plug-in electric vehicle credit through 2024.

Sec. 402. Credit for previously-owned qualified plug-in electric drive motor vehicles (§ 25E).

The provision creates a new credit for buyers of used plug-in electric cars from date of enactment through 2024. Buyers can claim a base credit of $1,250 for the purchase of qualifying used EVs, with additional incentives for battery capacity. The credit is capped at the lesser of $2,500 credit or 30% of the sale price.

To qualify for this credit, used EVs must generally meet the eligibility requirements in the existing § 30D credit for new EVs, not exceed a sale price of $25,000, and be a model year that is at least two years earlier than the date of sale.

Buyers with up to $30,000 ($60,000 for married couples filing jointly) in adjusted gross income can claim the full amount of the credit. The credit phases out so that buyers with below $40,000 ($70,000 for married couples) in AGI may be eligible for a reduced credit. Buyers must purchase the vehicle from a dealership for personal use and cannot claim the credit more than once every three years. The credit only applies to the first resale of a used EV and includes restrictions on sales between related parties.

Sec. 403. Credit for zero-emission commercial vehicles and zero-emission buses (§ 45T).

The provision creates a manufacturer credit for the sale of heavy, zero-emission vehicles starting after the date of enactment through the end of 2024. Eligible manufacturers may claim a credit of 10% of the sale price of an eligible vehicle, capped at a credit of $100,000. To be eligible, vehicles must be for domestic use, must weigh no less than 14,000 pounds, must not include an internal combustion engine, and must be propelled solely by an electric motor which draws electricity from a battery or fuel cell.

Sec. 404. Qualified fuel cell motor vehicles (§ 30B).

The provision extends the credit for the purchase of a qualified fuel cell motor vehicle through 2024.

Sec. 405. Alternative fuel refueling property credit (§ 30C).

The provision extends the alternative fuel vehicle refueling property credit through 2024. Starting in 2020, it also expands the credit for electric charging infrastructure by allowing a 20% credit for expenses above $100,000 (i.e., it allows a credit for expenses beyond the current limit if certain requirements are met). To qualify for this uncapped credit, the property must: 1) be intended for general public use and either accept credit cards as a form of payment or not charge a fee, or 2) be intended for exclusive use by government or commercial vehicle fleets.

TITLE V – INVESTMENT IN THE GREEN WORKFORCE

Sec. 501. Extension of the advanced energy project credit (§ 48C).

The provision revives the § 48C qualified advanced energy property credit, allowing the Secretary to allocate an additional $2.5 billion in credits for each year from 2020 through and including 2024.

Similar requirements to the original credit apply, with a few notable changes. The Secretary will determine allocations to projects each year with a requirement that property is placed in service

within 4 years of the date of the allocation. Projects will be given priority if the manufacturing is not for assembly of parts. The Secretary will provide a progress report to Congress by 2025 on the domestic job creation, and wages associated with such jobs, attributable to these projects.

Sec. 502. Labor costs of installing mechanical insulation property (§ 45U).

The provision provides a credit for up to 10% of the labor costs incurred by a taxpayer in installing mechanical insulation property into a mechanical system which was originally placed in service not less than 1 year before the date on which such mechanical insulation property is installed. The credit is available for costs paid starting in 2020 through the end of 2024.

TITLE VI – ENVIRONMENTAL JUSTICE

Sec. 601. Qualified environmental justice program credit (§ 36C).

The provision creates a capped refundable competitive credit of $1 billion for each year from 2020 through and including 2024 to institutions of higher education for environmental justice (EJ) programs.

The base credit is 20% of costs to be spent within five years by the receiving institution. Programs with material participation from Historically Black Colleges and Universities (HBCUs) and Minority Serving Institutions (MSIs) are eligible for a higher credit of 30%.

Qualifying EJ programs shall be designed to address or improve data about environmental stressors for the primary purpose of improving or facilitating the improvement of health and economic outcomes of individuals residing in low-income areas or areas populated disproportionately by racial or ethnic minorities.

Institutions receiving allocations shall make publicly available the application submitted to the Secretary and submit annual reports describing the amounts paid for and expected impact of the projects. The Secretary shall publicly disclose the identity of the institutions receiving the allocation and the amount of the allocation.

TITLE VII – TREASURY REPORT ON DATA FROM THE GREENHOUSE GAS REPORTING PROGRAM

Sec. 701. Report on greenhouse gas reporting program.

The provision requires the Secretary of the Treasury to assess and report on the utility of the data from the Environmental Protection Agency's Greenhouse Gas Reporting Program for determining the amount of greenhouse gases emitted by each taxpayer for the purpose of imposing a fee on such taxpayers with respect to such emissions.

TITLE VIII – REVENUE RAISERS

To be provided.

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date: 02/03/2020

Subject: REVIEW and ADOPT 2020 Sustainability Committee Discussion Schedule and 2019 Progress Report.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: Jody London, DCD **Contact:** Jody London (925)674-7871

Referral History:

N/A

Referral Update:

Advisory bodies to the Board of Supervisors are required to submit an annual report and work plan. Some Board committees adopt annual calendars and prepare reports that summarize their activies over the prior year.

Recommendation(s)/Next Step(s):

REVIEW and ADOPT 2020 Sustainability Committee Discussion Schedule and 2019 Progress Report

Fiscal Impact (if any):

None.

Attachments

2020 Discussion Schedule and 2019 Progress Report

2020 Sustainability Committee Discussion Schedule
4th Monday in January, March, May, July, September, November
1:00 p.m.
(unless otherwise noted)
As of January 28, 2020

Meeting Date	Subject	Staff Contacts
February 3 12:00 – 1:00	❖ Building Electrification Reach Code ❖ Federal Green Act ❖ Adopt 2020 Committee Calendar and 2019 Progress Report ❖ Review Sustainability Staff 2020 Work Plan	Demian Hardman Jody London Jody London Jody London
March 23	❖ Climate Action Plan Update ❖ Environmental Justice, Sustainability, and Health in General Plan ❖ Climate Emergency Resolution Update	Jody London Will Nelson Jody London
May 25*	❖ Municipal Facilities Design Guidelines Update ❖ Green and Healthy Home Initiative ❖ Bay Area Regional Energy Network Update	Demian Hardman, Frank DiMassa Demian Hardman Demian Hardman
July 27	❖ Interdepartmental Task Force on Climate and Sustainability ❖ Cleaner Contra Costa Challenge	Jody London Jody London
September 28	Topics will be identified as the year progresses, based on disposition of above items	
November 23**	Topics will be identified as the year progresses, based on disposition of above items	

At every meeting:

- ❖ Sustainability Commission Update
- ❖ Sustainability Coordinator Update

* Memorial Day, will need to find new date
** Week of Thanksgiving – find new date?

SUSTAINABILITY COMMITTEE
2019 PROGRESS REPORT

The Sustainability Committee of the Board of Supervisors (Committee) oversees implementation of the County's Climate Action Plan and related issues, and appoints at-large members of the Sustainability Commission. The Committee meets every other month; in the alternate month the County's Sustainability Commission, an advisory body, meets. At every meeting, the Committee receives reports from the leadership of the Sustainability Commission and from the County's Sustainability Coordinator.

Following is a summary of the Sustainability Committee's work in 2019.

Electrifying the County Fleet. Greenhouse gas emissions from transportation are the largest source of emissions in Contra Costa County, after emissions from large industrial facilities (close to 45%). Transportation emissions are the largest source of emissions from County operations (over 40%). The Sustainability Committee spent significant time in 2019 on issues and options for introducing more electric vehicles (EVs) into the County fleet.

At the January 28, 2019 meeting, the Committee directed that County departments should continue to pay for vehicle purchases; departments should see lower life cycle costs due to the lower operating and maintenance costs of EVs. The Committee suggested that savings from EV operations should be invested into the costs of installing EV charging infrastructure. The Committee noted that Administrative Bulletins may need to be amended to reflect that departments should purchase electric vehicles as they become available on the market.

The Committee also at the January 28, 2019 meeting directed staff to develop a master plan for EV charging infrastructure. The Committee suggested that charger use policies should consider (1) County-owned vehicles used for County business, and (2) employee-owned vehicles and the public. The Committee agreed that employees should be able to charge personal vehicles at a cost if a charger is not needed to charge a County vehicle; the priority for charging at chargers in County parking areas designated for employees should be County vehicles. At all chargers, pricing policies should increase after a certain time period to ensure vehicles are moved and chargers are available to more cars. The Committee directed staff to work with owners of properties the County leases to encourage them to install EV chargers. This should include providing information to landlords about the benefits of EV charging and the interest from County employees who work in those facilities, which data staff has from the employee survey.

At the August 1, 2019 meeting, the Committee discussed proposed amendments to existing Administrative Bulletins that pertain to County fleet. Public Works staff reported that the main bottleneck to deploying more EVs in the County fleet is charging stations. The Committee directed staff to develop a detailed plan, including costs, for EV charger deployment. The plan should address the unincorporated areas of the County, as well. The Committee directed staff to

update the Administrative Bulletins to reflect discussion about commercially or publicly available charging stations and different types of chargers for different charging needs, and incorporating EVs at a more rapid pace.

At the September 23, 2019 meeting, staff reported that Public Works provided the County Administrator's Office (CAO) with an estimate on installing more electric vehicle (EV) chargers at County facilities. Public Works has identified 18 County building sites for installation of 92 charging stations, with an equipment hookup cost estimate of $1.2 million. That does not include panel upgrades, trenching, and conduit. The Committee asked staff to make final the changes to the Administrative Bulletins on fleet to reflect greater reliance on EVs, and report back at the next meeting. The Committee also inquired about the status of County adoption of streamlined EV charger permitting pursuant to AB 1236, and a Ride and Drive event with EVs for County employees. Public Works staff reported at the December 9, 2019 meeting that changes are being made to Administrative Bulletins that affect vehicles.

Low Carbon Fuel Standard. The Low Carbon Fuel Standard program, operated by the California Air Resources Board, allows entities that produce fuels with a carbon intensity higher than standard levels to provide funding to entities that produce fuels with a lower than standard carbon level. At its January 28, 2019 meeting, the Committee authorized the Public Works Director to enroll and participate in the program This can be a revenue stream for the County, which can earn credit for EV charging at County facilities.

Appointments to At-Large Seats for the Sustainability Commission. On May 6, 2019, the Committee interviewed candidates for At-Large seats on the Sustainability Commission. The Committee recommended the following appointments:

At-Large Environmental Justice - Doria Robinson (term expires March 31, 2023)
At-Large, Business, Seat #1 - Russell Driver (term expires March 31, 2021)
At-Large, Business, Seat #2 - Nick Snyder (term expires March 31, 2023)
At-Large, Community Group, Seat #2 - Howdy Goudey (term expires March 31, 2023)

The Committee also recommended at the May 6 meeting that the Board of Supervisors create a second environmental justice seat for one member representing environmental justice issues and who lives in a community that bears a disproportionate burden of exposure to pollution and impacts of a changing climate, and helps the Commission reflect the geographic diversity of the County. The Committee interviewed applicants for this seat on September 23, 2019, and recommended the appointment of Sarah Foster, with a term that expires March 31, 2021.

Building Organizational Culture. At the August 1, 2019 meeting, the Committee received a presentation from the Sustainability Manager for Alameda County on how Alameda County has built an organizational culture that embraces environmental sustainability. The Committee learned that leadership from the Alameda County Board of Supervisors and County Administrator propelled the work. In 2006, with direction from the Board, the CAO established cross-departmental teams to bring broad thinking. The group met quarterly to report on progress

in meeting an initial goal to reduce greenhouse gas emissions from County operations by 15%. The group integrated sustainability into the County's vision and used creative strategies to engage County employees and make the work fun. Alameda County continues to innovate and be a leader on embedding environmental sustainability throughout County government.

County Purchasing Program. At its August 1, 2019 meeting, the Committee received a report on the County's Environmentally Preferable Purchasing Policy, which was adopted in 2008. Areas of particular success include integrated pest management, solar energy, lighting, custodial supplies, and buildings that meet the LEED green building standards. In Contra Costa County, many decisions are left to individual departments, with guidance and collaboration from the Purchasing group. The Committee discussed options for increasing environmentally preferable purchases across County operations, including updating the County's policy, fostering more collaboration between departments, and senior leadership requiring departments to purchase responsibly. The Committee requested that staff report back with recommendations for increasing collaboration between departments and modifying the Environmentally Preferable Purchasing Policy.

Climate Action Plan Update. At the September 23, 2019 meeting, the Committee received a report on the status of the Climate Action Plan update. Staff reviewed the draft goals for the Climate Action Plan that were recommended by the Sustainability Commission and were being presented in draft form at community meetings in September and October. The Committee directed staff to name equity and environmental justice as goals for the Climate Action Plan. The Committee discussed how to reflect economic benefits for Contra Costa County in an economy that relies less of carbon-based fuels.

Adapting to Rising Tides studies. At the September 23, 2019 meeting, the Committee received an overview of the report prepared by students from the UC Berkeley Goldman School of Public Policy on recommendations for governance and implementation of the Adapting to Rising Tides studies. Supervisor Gioia noted the question of governance and implementation can be discussed at the Bay Conservation and Development Commission. The Committee expressed interest in considering together the study for West County, which was completed in 2016, and the study for East County, which is ongoing. The Committee directed staff to bring this issue back when the study for East County is complete.

MCE Deep Green. At its December 9, 2019 meeting, the Committee received a report on options for enrolling County facilities in MCE's Deep Green (100% renewable) electricity product. The Committee clarified that additional electricity costs for Deep Green participation would be borne by the County department(s) that are in the participating buildings. The Committee voted to recommend to the Board that the County enroll in MCE's Deep Green program those facilities that do not have and will not be receiving solar panels. The Committee also voted to review this decision in one year.

Employee Commute Survey. At the December 9, 2019 meeting, the Committee received the results of the County Employee Commute Survey, which was prepared as part of the ongoing

update to the County's Climate Action Plan. The survey shows that most employees drive alone and are spending 40-45 minutes on average commuting each day. Primary factors that inform current commute choices are travel time, cost, and flexibility. Two-thirds of County employees would consider alternatives to their commute, particularly telecommuting and carpools. There is also significant interest in electric vehicles and the ability to charge at County facilities.

The Committee voted to forward the report to the Board for acceptance with a recommendation that the Board consider establishing a process to address how the County can reduce greenhouse gas emissions and congestion from employee commutes, and other alternatives to help the County achieve its climate goals.

Environmental Justice Seat for Hazardous Materials Commission. At the December 9, 2019 meeting, the Committee discussed options for the Hazardous Materials Commission to use in defining eligibility for a new environmental justice seat. The Committee agreed the representative should be someone from an impacted community, who will be able to represent community interests. The person should not have to be an expert. The Committee forwarded to the Board of Supervisors a recommendation for the Hazardous Materials Commission to add an environmental justice seat, and that the seat be filled by a layperson from a community impacted by hazardous material facilities.

Climate Emergency Resolution. At the December 9, 2019 meeting, the Committee received a referral from the Board of Supervisors regarding a County resolution declaring a climate emergency. The Committee expressed interest in seeing the County take action on those issues where it can have the greatest impact. The Committee directed the Sustainability Coordinator to develop a draft climate emergency resolution that would be reviewed by the Sustainability Commission, and come back to the Committee.

California Electric Vehicle Infrastructure Project (CALeVIP). The Committee received a presentation on the CALeVIP program, a State program that is providing tens of millions of dollars to regions across the state to install electric vehicle charging infrastructure. MCE, the County's community choice aggregator, is putting together a proposal to include the MCE member jurisdictions in the 2021 CALeVIP cohort. The Committee discussed its interest in participating and worked to understand the financial commitment that is being requested. The contribution requested for Contra Costa County - the County and the Contra Costa Transportation Authority combined - is $2.8 million over four years. The total amount that would become available for electric vehicle infrastructure in the County would be $11.5 million over the four year term of the program. The Committee voted to bring to the Board a resolution endorsing County participation with MCE in the CALeVIP application, acknowledging that a funding source is not immediately available.

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date: 02/03/2020

Subject: REVIEW Sustainability Staff 2020 Work Plan.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: Jody London, DCD **Contact:** Jody London (925)674-7871

Referral History:

None.

Referral Update:

County sustainability staff wish to share with the Sustainability Committee their anticipated work plan for 2020.

Recommendation(s)/Next Step(s):

REVIEW Sustainability Staff 2020 Work Plan.

Fiscal Impact (if any):

None.

Attachments

2020 Sustainability Work Plan

VISION:
Contra Costa County is a leader on climate and sustainability issues, ensuring County residents and workers live and work in healthy, resilient communities

MISSION:
Facilitate Implementation of County Climate Action Plan.
Provide leadership and facilitation for cities and special districts in Contra Costa County on sustainability issues.

	Lead Staff	Supporting Staff	Partners	Funding Source(s)	Timeline	Outcomes
Ongoing Programs and Activities						
Bay Area Regional Energy Network (BayREN) Energy Efficiency (EE) Programs	Demian Hardman	N/A	Bay Area Counties, ABAG, City Sustainability Staff, Building Departments and TUCC	ABAG; CPUC (~$280K Per Year)	Ongoing, Annual	Implementation of CAP Goals for County and Cities - Annual Program Deliverables through Contract with ABAG
East Bay Energy Watch (EBEW)	Demian Hardman	N/A	StopWaste, PG&E	PG&E (~$40K) Per Year	Program expires 6/30/2020	Program Deliverables through Contract with StopWaste
Sustainability Committee	Jody London	Anna Battagello (agenda prep)		General Fund	6 meetings/year	Policies, Direction to staff
Sustainability Commission	Jody London	Anna Battagello (agenda prep)		General Fund	6 meetings/year	Suggestions for staff, Board
Energy Efficiency Policy & Regulatory	Demian Hardman	Jody London	BayREN, LGSEC	BayREN	Ongoing	Monitor and/or developenergy efficiency Policy as needed to support County's Goals
Climate Action Plan Implementation	Jody London	DCD staff, staff in other departments		General Fund	Ongoing	Programs and policies that reduce greenhouse gas emissions in Contra Costa County
County CAP Working Group	Jody London		CAO, other County departments		Initiate in 2020, ongoing after	County Working Group led by CAO, supported by DCD, that develops and implements strategies to meet CAP goals for County operations and community programs
Electric Vehicles	DCD (Jody London) for one-off grant opportunities (i.e., Electrify America).	DCD (Transp. Planning) for traditional grant opportunities; Public Works (Joe Yee, Carlos Velasquez, Frank DiMassa) for vehicles and EV infrastructure @ County facilities.	Contra Costa Transportation Authority, MCE	In progress	Ongoing	Bring in resources that will facilitate (1) deployment of electric vehicle infrastructure across the County, and at County facilities for employees and public, and (2) greater adoption of electric vehicles in Contra Costa County
Sustainability Exchange	Jody London	Demian Hardman	Steering Committee - staff from cities, 511 Contra Costa		Meets quarterly	Networking, learning, collaborative projects such as Cleaner Contra Costa Challenge

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	Lead Staff	Supporting Staff	Partners	Funding Source(s)	Timeline	Outcomes
USDN Membership	Jody London			General Fund. Staff has been successful in 2019 and 2020 in obtaining a scholarship, reducing annual dues to $4,500.	Ongoing	Professional learning, capacity building through working groups, in-person meetings. Jody is Co-Chair of working group for counties.
LGSEC Membership	Demian Hardman			BayREN covers dues of $3,960.	Monthly calls; quarterly meetings	Regulatory updates, regulatory participation, networking, learning. Demian is a Board member.
Special Projects						
Climate Emergency Mobilization Resolution	Jody London	Cindy Cortez	CAO, Sustainability Commission, Sustainabilit	General Fund	TBD	Adopted Resolution
Climate Emergency Mobilization Resolution - Implementation	Jody London		TBD	General Fund	TBD	
Building Electrification Reach Code	Demian Hardman	TBD	Sustainability Commissioners, BayREN partne	BayREN	30-Jun-20	Adopted Reach Code
Green and Healthy Homes Initiative - Business Plan Implementation and funding for Comprehensive home-based asthma program with energy efficiency measures	Demian Hardman (DCD) with County Health Dept. Staff	N/A	County Health Department and MCE staff	BayREN, and County Health Dept.	Winter 2020	Secure funding sources to begin implementation of Business Plan
Cleaner Contra Costa Challenge	Jody London	Accounting, Lawrence Huang	Cities of Antioch, San Pablo, Walnut Creek; Sustainable Contra Costa; Community Climate Solutions	BAAQMD grant	Contract ends Oct. 2020; have requested six month, no-cost extension	Online platform for residents to track actions that reduce GHG emissions.
Annual County GHG Emissions Inventory Update	Demian Hardman	Cindy Cortez	StopWaste, and PlaceWorks Staff	EBEW (currently)	30-Jun-20	Complete Inventory Update - Look for ongoing funding from other sources
Municipal Facility Design Guidelines Update	Public Works, Demian	Cindy Cortez	Public Works	EBEW	30-Jun-20	Complete Draft Municipal Facility Design Guidelines Document
Climate Action Plan Update	Jody London	Demain Hardman, Cindy Cortez	Transportation, Solid Waste, Energy); County departments, especially Public Works, Health	General Fund	Board Adoption Dec. 2020	Updated CAP

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	Lead Staff	Supporting Staff	Partners	Funding Source(s)	Timeline	Outcomes
General Plan Update - provide input to Plan and to updated zoning ordinances	Jody London		Will Nelson, Current Planning	General Fund	ongoing	Updated General Plan, Updated zoning ordinances
Adapting to Rising Tides	???					Implementation of strategies to anticipate impacts of rising Bay and Delta waters
Public Safety Power Shutoffs/ Distributed Energy Resources	Jody??		CAO, Office of Emergency Services, Public Works, Health, other departments that maintain 24/7 facilities and/or provide community services.	???	???	County strategy to anticipate and plan for power outages, including installation of energy storage at critical facilities and facilities the County might designate as community gathering spots. A comprehensive needs assessment will allow County to pursue funding opportunities as they arise.

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date: 02/03/2020

Subject: RECEIVE REPORT from Sustainability Commission Chair.

Submitted For: Jody London, Sustainability Coordinator

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: Howdy Goudey, Chair, or designate **Contact:** Jody London (925)674-7871

Referral History:

This is a standing item of the Commission.

Referral Update:

The Sustainability Commission Chair provides an update at each meeting of the Sustainability Committee on the work of the Commission.

At its August meeting the Sustainability Commission adopted the attached environmental justice assessment tool and recommends its use in updating the County's General Plan.

Recommendation(s)/Next Step(s):

RECEIVE report from Sustainability Commission Chair.

Fiscal Impact (if any):

None.

Attachments

No file(s) attached.

Contra Costa County Board of Supervisors

Subcommittee Report

SUSTAINABILITY COMMITTEE

Meeting Date:	02/03/2020
Subject:	RECEIVE REPORT from Sustainability Coordinator.
Submitted For:	Jody London, Sustainability Coordinator
Department:	Conservation & Development
Referral No.:	N/A
Referral Name:	N/A
Presenter:	Jody London, DCD **Contact:** Jody London (925)674-7871

Referral History:

The Ad Hoc Committee on Sustainability has requested an update at each meeting on sustainability work by County staff.

Referral Update:

This report provides an update to the Sustainability Committee on the work of the County's Sustainability staff since the Committee last met on December 9, 2019. Key activities during this period are listed below.

- Sustainability staff continue to refine with staff from many departments the draft goals, tools, and measures for the Climate Action Plan. Staff expects to have proposed CAP goals, tools, and measures in the coming weeks. Sustainability staff also are supporting the General Plan update, where appropriate.
- The draft solar overlay zoning ordinance was approved by the Planning Commission on January 22 and will be presented to the Board of Supervisors on February 25.
- Staff works with Sustainability Commission members on specific issues and questions.
- The Bay Area Regional Energy Network (BayREN), in which Contra Costa County plays a leadership role, was approved by the California Public Utilities Commission (CPUC) for ongoing funding, meaning it is no longer a pilot program. In approving the BayREN and other regional energy networks, the CPUC cited that RENs' "may be able to utilize funding from multiple sources to deliver more comprehensive and holistic programs, especially to hard-to-reach customers." Contra Costa County will receive $287,270 in baseline funding each year for BayREN for the next three years, for a total of $861,810. County-wide BayREN program offerings include energy efficiency incentives for upgrades to residential and commercial buildings as well as other resources to city/county building departments on State energy code improvements and compliance.
- Contra Costa County received a second technical assistance grant through the Green and Healthy Homes Initiative to explore the feasibility of how the state health care billing system

could potentially provide long-term funding to the County to implement a comprehensive home-based asthma program. A final report will be completed at the end of the grant term (9 months). This effort builds upon the first grant, which developed a business plan for the home-based asthma program.

- Coordinated with CCTA and MCE on opportunities for funding to support implementation of the Electric Vehicle Readiness Blueprint.
- Continue to administer the Cleaner Contra Costa Challenge.
- In December, the Board approved an ordinance that streamlines permitting for installing electric vehicle chargers in the unincorporated County, in compliance with AB 1236.
- Collaborated with County staff working on topics including land use and transportation, hazardous materials, green business program, the County's state and federal legislative platforms, economic development, health, codes, solid waste, energy, and related.
- Participated in regional activities.

Recommendation(s)/Next Step(s):

RECEIVE REPORT from County Sustainability Coordinator.

Fiscal Impact (if any):

None.

Attachments

No file(s) attached.
