



CITY OF SAN MATEO

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Agenda Report

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TO: City Council
FROM: Drew Corbett, City Manager
PREPARED BY: City Manager's Department
MEETING DATE: January 06, 2020
SUBJECT:
Review the Draft 2020 Climate Action Plan

RECOMMENDATION:

Review the Draft 2020 Climate Action Plan and recommend whether to bring the plan forward for formal adoption.

BACKGROUND:

The City of San Mateo adopted a Climate Action Plan (CAP) in April 2015 which provides a comprehensive strategy to reduce community-wide greenhouse gas (GHG) emissions in San Mateo. The 2015 CAP identified GHG reduction measures and implementation strategies for the City to achieve the State-recommended GHG emissions reduction target of 15% below 2005 levels (or a return to 1990 levels) by 2020 as established in Assembly Bill 32.

Since the adoption of the 2015 CAP, a number of recommended strategies in the plan have been implemented, including the highest impact strategy, joining Peninsula Clean Energy, a Community Choice Energy program. Additionally, the State adopted Senate Bill 32, which established a revised statewide GHG emission reduction target 40% below 1990 levels by 2030. Staff began work to update the 2015 CAP in order to quantify the City's progress towards GHG reduction targets, update the GHG targets to stay consistent with State regulations, and integrate with the General Plan update.

In August 2018, the City advertised a Request for Proposals (RFP) for an update to the Climate Action Plan and selected PlaceWorks. PlaceWorks was already under contract with the City to complete the General Plan update, which helps staff coordinate seamlessly with the General Plan update. The project kicked off in October 2018. The Sustainability and Infrastructure Commission (SIC) has served as the key advisory body throughout the CAP update process. With continuous feedback from the SIC, the project team prepared the updated Draft 2020 CAP (Attachment 1), which identifies new GHG reduction targets, revised GHG reduction strategies, and demonstrates the City's continuing leadership in sustainability.

CAP Update Process

At the January 9, 2019 SIC meeting, the project team introduced the project and presented the updated GHG inventories for the years 2005, 2010, 2015, and 2017. The GHG inventories quantify community-wide emissions and showed that in 2017, the City had reduced GHG emissions 18% below the 2005 baseline and is on track to reach and exceed the 2020 goal of 15% below the 2005 baseline. At the March 13, 2019 SIC meeting, the project team used the inventories to forecast GHG emissions in 2030 and 2050. The project team also evaluated and presented the 2015 CAP GHG reduction strategies, and the Commission provided feedback on how the strategies could be revised for inclusion in the updated CAP.

Since March, the project team has focused on updating the strategies from the 2015 CAP, developing additional GHG reduction strategies, and quantifying the GHG emissions for each strategy. The project team returned to the SIC on May 8, 2019 and September 11, 2019 to solicit Commission feedback on the draft GHG reduction strategies. Additionally, on June 6, 2019, the project team hosted a community workshop to receive feedback on the GHG reduction strategies. More than

50 community members attended the workshop.

Draft 2020 CAP

GHG Emission Inventories

A GHG inventory is a summary of the GHG emissions occurring as a result of activities that take place within a community. All measurements of GHG emissions are in the common metric tons of carbon dioxide equivalent (MTCO₂e), which allows for the different strengths of various GHGs to be expressed in a single unit. The project team prepared a 2017 GHG inventory to provide the most up-to-date available measurement of how San Mateo's GHG emissions have changed over time, including since the 2015 CAP. The inventories show that total emissions declined from 660,600 MTCO₂e in the 2005 baseline year to 541,960 MTCO₂e in 2017, a decrease of 18%.

The inventories also show how emissions have changed by sector. The on-road transportation sector remains the largest source of emissions in San Mateo, accounting for 50% of emissions. The residential built environment accounts for 18% of emissions followed by commercial and industrial buildings, which accounts for 16% of emissions. The next sectors include off-road equipment (8%), solid waste generation (3%), and point sources (1%). Landfill (1%), rail (1%), and water and wastewater emissions (<1%) were consistently the smallest sources.

The decrease in emissions is due to less resource use, less GHG-intensive resources, or both. For example, San Mateo buildings used less electricity and relied on electricity from much cleaner sources, thus emissions from building electricity use fell 64%. In another case, even though driving in San Mateo increased in 2017 since 2005, cars became 18% cleaner during this period, causing another decline in emissions.

The inventories allow the project team to forecast for future emissions and set appropriate targets for the 2020 CAP. Furthermore, the inventories help illuminate where there is the most potential for emission reductions.

GHG Reduction Targets

The 2020 CAP updates the GHG reduction targets in accordance with the State recommendations in the Climate Change Scoping Plan and establishes future emission reduction targets as follows:

- 2030: Reduce emissions to 4.3 MTCO₂e per-capita
- 2050: Reduce emissions to 1.2 MTCO₂e per-capita

Although the 2015 CAP used absolute reduction targets (or percentage below baseline), the project team found that per-capita targets were the most appropriate targets and align with State guidance for local communities. California's statewide targets are as follows:

- 2030: Reduce emissions 40% below 1990 levels, codified into law, by SB 32 (2016)
- 2050: Reduce emissions 80% below 1990 levels, established by Executive Order S-03-05 (not yet codified into law)

The City's per-capita targets are consistent with the State's guidance and are meant to serve as ceilings for future GHG emissions. The State's guidance for per-capita emissions allows the local government to derive evidence-based local per-capita targets that are based on local emissions sectors and population projections that are consistent with the State's framework. The City has the potential to achieve greater GHG reductions, decreasing emissions further below these levels. The City's per-capita targets in the 2020 CAP allow the document to serve as a Qualified GHG Reduction Strategy, which allows developments that are consistent with the CAP to streamline their environmental review.

GHG Reduction Strategies

Much of the focus of the project team is updating and quantifying GHG reduction strategies. These strategies lay out a comprehensive roadmap to reduce emissions and meet the new targets. The 2020 CAP includes 29 measures organized into nine categories:

1. Building Electrification
2. Renewable Energy
3. Energy Efficiency
4. Municipal Energy Efficiency and Electrification

5. Clean Transportation Fuels
6. Sustainable Transportation
7. Solid Waste
8. Water and Wastewater
9. Off-Road Equipment

The 2020 CAP includes all the categories addressed in the 2015 CAP, with some revised category names, for example, the “Alternative Fuels” category has been renamed to “Clean Transportation Fuels.” Some measures are reorganized to improve monitoring and tracking. For example, renewable energy systems for new and existing residences is now under one measure instead of being tracked separately.

The 2020 CAP also includes some new measures that address new trends in the sustainability field, including building electrification, battery storage, and waste source reduction. Building electrification refers to replacing some or all of a building’s natural gas-powered appliances or machinery to models that run on electricity. Since electricity releases much fewer GHGs, there is a significant GHG reduction benefit. A new measure category, “Building Electrification,” has been added to encourage the construction of all-electric buildings and installation of electric technologies. The 2020 CAP also includes measures that address building electrification in municipal facilities.

Battery storage technology has advanced since the development of the 2015 CAP. There are more cases of battery storage use at the residential scale and potential resilience benefits when deploying battery storage paired with solar. Waste source reduction opportunities, such as the reduction of single-use plastics, have recently gained more attention. While it is important to sort waste properly and use recyclable or compostable material whenever possible, it is also helpful for community members to minimize the amount of materials they throw away at all.

Implementation

Following the format of the 2015 CAP, each GHG reduction measure has a list of recommended potential actions that represent suggested means of achieving the measure, but are not a prescriptive path to implementation. Due to constant changes in technology and regulations and the emergence of new best practices and funding opportunities, the recommended actions enable the City to adapt and leverage new opportunities or partnerships without being constrained to a specific implementation pathway.

The 2020 CAP contains several new recommended actions for implementation including exploring reduced permitting fees for sustainable improvements, including the construction of Zero Net Energy buildings, installation of EV chargers, or solar projects. Reduction of permitting fees can serve as an incentive to builders to try new technologies. Another example new action includes the development of a benchmarking ordinance for smaller commercial and multifamily buildings that are below the minimum size threshold for mandatory benchmarking under AB 802. A benchmarking ordinance requires building owners to receive an energy assessment at a set time interval. The energy assessments highlight opportunities to save energy and money, potentially motivating building owners to make energy efficiency upgrades. Finally, the 2020 CAP highlights opportunities to partner with Peninsula Clean Energy. For example, the City can support PCE’s outreach to direct access customers that do not buy electricity from PCE to consider the use of carbon-free electricity.

Staff will monitor and report progress toward 2020 CAP measures to City Council on an annual basis. The most recent 2015 CAP Progress Report was presented at the June 3, 2019 City Council meeting. Staff will return to the City Council in June 2020 to wrap up the 2015 CAP implementation progress and report on initial progress under the newly adopted 2020 CAP. These annual reports are more qualitative in nature but help highlight how the City is working towards the CAP goals. The CAP is intended to be a living document and will need to be updated every 5 to 10 years to reflect changes in State policy, shifting technologies, and best practices.

Next Steps

The Draft 2020 CAP was presented at the SIC at the December 11, 2019 meeting, and the Commission recommended that the Draft 2020 CAP be brought forward to the City Council for review at its January 6, 2020 City Council Study Session. The adoption of the 2020 CAP requires an amendment to the General Plan and an Environmental Impact Report (EIR)

addendum to be considered a Qualified GHG Reduction Strategy. Once the draft CAP is reviewed by the City Council, the project team will present Draft 2020 CAP along with draft General Plan Amendments and EIR Addendum, to Planning Commission in February 2020. Following Planning Commission's approval, the project team will return to City Council for the adoption of the 2020 CAP and related General Plan amendments and EIR addendum in March 2020.

The project team now seeks City Council review and input on the Draft 2020 CAP and asks that the City Council consider whether the document should be brought forward for adoption.

BUDGET IMPACT:

Sufficient funding for the update of the CAP was budgeted in the Construction Services Fund as part of the 2018-2020 Business Plan. Implementation of specific measures under the CAP will be reviewed on a project-by-project basis and may require additional funding to implement.

ENVIRONMENTAL DETERMINATION:

In accordance with CEQA Guidelines section 15378(b)(5), receipt of information is not subject to CEQA because it is an administrative activity of government that will not result in physical changes to the environment. An environmental review of the 2020 Climate Action Plan is being conducted and is included in the overall project scope.

NOTICE PROVIDED

All meeting noticing requirements were met.

ATTACHMENTS

Att 1 - Draft 2020 Climate Action Plan

STAFF CONTACT

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