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CITY COUNCIL STAFF REPORT

Meeting: November 16, 2021

Subject

Consider Climate Action Plan Update draft measures

Recommended Action

Provide input on Climate Action Plan Update draft measures

Background

At a Study Session in December 2020, the Council provided direction to create a roadmap towards a carbon-neutral and Zero Waste City as follows:

- Achieve carbon neutrality in City-owned facilities and operations no later than 2030
- Reduce community-wide emissions by 50% below 2010 levels by 2030
- Achieve community-wide carbon neutrality no later than 2040 (five years earlier than the state target)
- Achieve negative net carbon emissions after 2045
- Establish a Zero Waste¹ Community target date of 2035
- Pursue the Climate Action Plan (CAP) Update process with the guiding principles of equity, innovation, urgency and flexibility, resilience, and adaptation

The City and its consultant, Rincon Consultants, have completed draft technical analyses, including an updated forecast of greenhouse gas (GHG) emissions to calculate the reduction necessary to reach carbon neutrality by 2040. Alongside the technical analyses, the City is engaging with stakeholders and the public to explore GHG reduction and waste reduction measures in the short-term, mid-term, and long-term to achieve the community-wide goals. The Sustainability Commission CAP Update Subcommittee has played a core role in reviewing draft documents and receiving feedback directly from stakeholders throughout the planning process.

Discussion

¹ Zero Waste is generally defined as 90% diversion from the landfill.

Community Engagement

The City is using a variety of engagement tools with a focus on embedding equity into the public process of CAP adoption. Methods include virtual meetings, surveys, polls, tabling at events and around the community, and a new website with interactive features. A wide range of feedback has been received via the activities listed below.

Activities to date:

- Four Sustainability Commission meetings (October and November 2020, July and October 2021)
- Two stakeholder meetings with representatives and leaders from businesses, nonprofits, advocacy groups, and Below Market Rate housing stakeholders (July and October 2021)
- Two public workshops open to anyone (July and October 2021)
- Two public surveys (Survey 1: July 23 through September 19, 2021; Survey 2: Opened September 20, 2021, in progress)
- Tabling at Day 'n Night Fun Festival (September 2021)
- Tabling at the Cupertino Library
- CAP Update engagement website: cupertino.org/climateaction
 - o Digital note board for open ended ideas
 - o News feed with upcoming opportunities for involvement

Attendance and participation numbers to date:

- 1033 unique visitors to the CAP Update engagement portal
- 169 people engaged via the website by either taking a survey, leaving a comment on the note board, or asking a question
- 126 people attended at least one virtual workshop
- 230 visitors to the Sustainability booth at the Day 'n Night Fun Festival

Public and stakeholder feedback will be used to inform the general direction of the CAP update and was used in the development of the draft measures. Although the engagement process is ongoing and analysis of the results is not finalized, below is a summary of themes from the feedback received to date that is most relevant to the high-impact measures list in Table 1:

- Awareness that climate change is already impacting the environment and community. Impacts of greatest concern are wildfire, smoke, drought, and water supply.
- Desire to increase resiliency and support vulnerable populations to be prepared for climate risks through efforts such as increasing tree coverage in low-income housing areas.
- Strong interest in equity across multiple sectors and appreciation for the inclusion of equity in the CAP Update process.
 - o Support for improving access to active and shared transportation but a concern about the equity implications of disincentives for single-occupancy vehicles. Examples include concerns that shifting to electric

- vehicles may be an inequitable solution due to costs, and a shift from passenger cars may reduce access for people with disabilities.
 - Concerns that renters and people who live in multi-family homes have more barriers to making the switch to electric vehicles and electric appliances, including higher cost or lack of control over costs, logistical challenges of shared infrastructure, etc.
 - Concern that certain actions could lead to residents being displaced. For example, a concern that the cost to electrify buildings would be burdensome for low-income households and reduce housing affordability.
- Ensuring a high quality of living for future generations is high on the list of priorities for climate action. Actions with significant co-benefits such as increasing neighborhood walkability and promoting micro-grids to protect infrastructure and homes are especially popular.
- General support for improving bike, pedestrian, and public transportation infrastructure. An example action that received a high level of support is a pilot to designate streets specifically for bikes.
- Support for policies that transition away from natural gas in new and existing buildings, reduce single-use plastics, increase tree coverage, increase resiliency for vulnerable communities, preserve natural spaces, and improve air quality.
 - General support for more technical actions such as electrifying homes but expressing the need for more education, incentives, and support from the City. Concerns about the capacity of the grid to support the increase in electricity demand.
 - Interest and support for policies and programs to reduce waste while acknowledging the limited options and incentives currently available to switch to reusables. Support for more education on how to compost and recycle in Cupertino.
 - Support for the City to take climate action in its own operations, such as replacing City vehicles with electric vehicles.

The City is developing a list of actions to achieve the high-impact measures in Table 1. This list will include actions that directly address concerns expressed during the community engagement process. Following the City Council's direction to center equity in the process, the CAP will include "equity guardrails" to ensure that vulnerable populations are supported in the transition to a carbon neutral city. The technical consulting team and City staff will document how community feedback was integrated into the development of the proposed actions list, which will be prepared in the next step of the CAP Update process.

See Attachment B for detailed summaries of public and stakeholder workshops and Attachment C for the Survey #1 summary of results.

Draft Measures

The table below lists the high-impact proposed measures that would nearly achieve the City's 2040 carbon neutral and zero waste goals, according to modeling by Rincon Consultants. These proposed measures have the potential to reduce local greenhouse gas emissions by approximately 133,220 metric tons of carbon dioxide equivalent (MT CO₂e) each year by 2030. By 2040, the proposed measures are calculated to reduce emissions by approximately 257,790 annual MT CO₂e, which accounts for the majority of the GHG reduction needed.

Each measure is backed by robust calculation to ensure that Cupertino's various climate commitments can be achieved with verifiable and feasible actions. When combined with the policy commitments by the State of California, as well as expected system-wide increases in efficiency and expected changes in population, these measures will allow Cupertino to meet the City's draft GHG emissions targets to achieve carbon neutrality by 2040. The next step in the CAP Update process is to incorporate public feedback into a more detailed list of supporting actions to achieve the measures in Table 1.

At this time, feedback from the City Council is requested on the draft measures listed in Table 1 below. City Council feedback at this stage will allow the consulting team to solidify the high-impact measures and proceed with finalizing the technical modeling which is needed to substantiate the plan according to defensible standards of calculating GHG impact.

Table 1. Draft Climate Action Plan Update Measures

| Proposed Greenhouse Gas Reduction Measures | 2030 Emissions reduction (MT CO₂e) | 2040 Emissions reduction (MT CO₂e) |
|---|--|--|
| Building Energy | | |
| Increase participation rates in Silicon Valley Clean Energy (SVCE) | | |
| Reduce SVCE opt-out rate to 2% for residential use by 2030 and maintain through 2040 | 40 | 20 |
| Reduce SVCE opt-out rate to 10% for commercial use by 2030 and maintain through 2040 | 740 | 250 |
| Electrify existing buildings | | |
| Electrify 49% of existing residential buildings by 2030 and 86% by 2040 | 21,920 | 38,610 |
| Electrify 24% of existing commercial buildings by 2030 and 49% by 2040 | 13,960 | 28,730 |
| Transportation | | |
| Implement programs for active transit that reduce vehicle miles traveled (VMT) | | |
| Achieve 15% of bicycle mode share by 2030 and 25% by 2040 | 180 | 290 |

| Proposed Greenhouse Gas Reduction Measures | 2030 Emissions reduction (MT CO₂e) | 2040 Emissions reduction (MT CO₂e) |
|---|--|--|
| Implement programs for shared transit that reduce VMT | | |
| Achieve 35% of public and shared transit mode share by 2030 and 40% by 2040 | 64,240 | 73,210 |
| Increase zero-emission vehicle (ZEV) adoption | | |
| 35% of passenger cars are zero-emission vehicles by 2030, and 100% by 2040 | 11,470 | 35,210 |
| 20% of commercial vehicles are zero-emission vehicles by 2030, and 100% by 2040 | 7,760 | 47,590 |
| Waste | | |
| Reduce community-wide landfilled organics 80% by 2025 and 90% by 2040 compared to 2018 levels | 2,400 | 2,610 |
| Reduce community-wide landfilled inorganics 35% by 2030 and 90% by 2040 compared to 2018 levels | 5,160 | 13,490 |
| Off-road | | |
| Off-road equipment such as construction machinery and landscaping tools are 25% electric by 2030, and 100% electric by 2040 | 3,950 | 16,380 |
| Carbon Sequestration | | |
| Double the urban tree canopy by 2030 to absorb more carbon from the air and provide resiliency benefits | 1,400 | 1,400 |
| Total GHG Reduction Potential | 133,220 | 257,790 |

Further analysis of the impact of the proposed measures on the community is underway and may result in fine-tuning of the measure objectives. However, feedback from City Council is valuable at this stage to provide the project team with direction for the next stage of analysis to determine actions to achieve each measure. The CAP Update will need to include these technical calculations to demonstrate the plan is defensible and feasible.

The recommended measures in Table 1 are high-impact measures that will make up close to 100% of the GHG reduction needed to achieve carbon neutrality. The City is also considering supporting measures and actions (Attachment A) which are directly related to the high-impact measures above. The City will continue to refine this list throughout the public process as outlined in the Next Steps section below. The final CAP Update plan, with high-impact measures, supporting measures, and actions, will achieve carbon neutrality by 2040.

Commission Recommendation

The Sustainability Commission discussed this list of draft CAP update measures at its October 2021 meeting. Public comment was received from five community members representing Cupertino for All, Santa Clara Valley Audubon Society, Sierra Club Loma Prieta Chapter, and Silicon Valley Youth Climate Action. Topics raised during public comment included support for increasing housing density, more aggressive carbon reduction goals, more aggressive policy to reduce natural gas, protecting biodiversity, and general support for the goals of the CAP and focus on equity. Commissioners raised ideas and issues during the discussion, including:

- Urgency of the climate emergency
- Do not rely on carbon offsets to achieve carbon goals
- Concerns of cost and equity impacts of actions, burden on City staff
- Suggestions for transportation actions such as disincentives for new gasoline stations, introduce personal rapid transit, expand free electric vehicle charging
- Actions that conserve water and mitigate heat impacts alongside building electrification
- Consider out-of-the-box solutions and global best practices
- Ensure City facilities adhere to electrification goals
- General support for including biodiversity language in the CAP measures. The consultant confirmed that biodiversity and resiliency can be addressed in the adaptation and resiliency section.
- Increase percentage of public and shared transit mode share and increase percentage of electrifying the existing commercial buildings. The consultant noted that changing percentages would require substantial evidence to support the increase.

The Commission expressed appreciation for the clarity and coverage of the high-impact measures as presented in Table 1. The Commission voted to recommend the draft list of high-impact measures in Table 1 to the City Council, with the acknowledgement that further modifications may be needed as analysis proceeds. The Sustainability Commission will continue to be engaged at key junctures as this project moves forward towards a draft document and adoption by the City Council.

Next Steps

1. The City Council reviews the draft measures in its November 16 Study Session and provides input to the project team.
2. The City continues to refine and develop the measures and actions list based on:
 - The City Council and Commission recommendations and feedback
 - Feedback received during public workshops, surveys, stakeholder meetings, and CAP Update Subcommittee meetings
 - Alignment with State of California guidelines and standard GHG emissions accounting protocols
 - Alignment with the best available climate science and climate policy best practices

3. Creation of the CAP Update draft document and technical appendices for public review. Estimated to be released in February 2022.
4. A final round of stakeholder and public workshop meetings, estimated to be held in February 2022.
5. Begin the California Environmental Quality Act (CEQA) review process for the CAP Update to be considered qualified. A CEQA review document plus a CEQA GHG compliance checklist for use by City staff will allow future projects/plans proposed within the City to streamline respective GHG emissions analyses under CEQA. Qualification of the CAP under CEQA is a strategy listed in the Cupertino General Plan Environmental Resources and Sustainability Element.
6. Bring the CAP Update final plan to the City Council for adoption, estimated to be in May 2022.

An up-to-date, full schedule for the CAP Update planning process is on the engagement portal (Cupertino.org/climateaction).

Sustainability Impact

Direction from current climate science is that aggressive actions are needed on a global scale to maintain warming at a manageable 1.5 degrees Celsius in the future.

Establishing a set of measures that align with climate science will place Cupertino on a path for significant carbon reductions in the mid-term and on a trajectory to become a carbon-neutral city by 2040.

Fiscal Impact

The draft Climate Action Plan Update will estimate relative cost and resource impacts so that the City Council has an indication of the level of effort required for each measure. However, a full cost study is not in the scope of this current process nor is there enough detail at this stage to produce a full cost and benefits study. The City plans to evaluate CAP implementation every year to determine in much greater detail the short-term and mid-term needs that the City should budget for in the next budget cycle.

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Attachments:

A – Draft CAP Update Measures and Actions

B – Workshop Summaries

C – Survey Results