TO:  HONORABLE CITY COUNCIL
FROM:  BRAD EGGLESTON, DIRECTOR OF PUBLIC WORKS
DATE:  2/22/2021
SUBJECT:  AGENDA ITEM NUMBER 3- STATUS REPORT ON 2021 SUSTAINABILITY AND CLIMATE ACTION PLAN (S/CAP) DEVELOPMENT AND ENGAGEMENT

Given the desire to allow Council and the public to review the staff presentation for Agenda Item Number 3 in advance, we are distributing the presentation early.

Brad Eggleston
Director of Public Works

Ed Shikada
City Manager
2021 Sustainability and Climate Action Plan Status Report

February 22, 2021

cityofpaloalto.org/ClimateAction

Acting Now for A Resilient Future
Objectives for Tonight

• Review 2021 Sustainability and Climate Action Plan (S/CAP) Progress to-date

• Review principles guiding analysis of proposed strategies

• Provide a status update on the 2021 S/CAP Update process

• Highlight next steps in the 2021 S/CAP Update process
2021 S/CAP Goals

California’s Goal: 80% BELOW 1990 LEVEL BY 2050

Palo Alto’s Goal: 80% BELOW 1990 LEVEL BY 2030

- Additional goals in seven areas
  - Energy
  - Mobility
  - Electric Vehicles
  - Water
  - Climate Adaptation and Sea Level Rise
  - Natural Environment
  - Zero Waste
GHG Emission Sources in Palo Alto

- Road travel into, from, and within City: 64%
- Natural gas use in buildings and distribution leakage: 32%
- Electricity use: 0%
- Landfill-related: 3%
- Wastewater process: 1%

Source: 2018 Palo Alto Municipal Operations & Community GHG Emissions
Acting Now for A Resilient Future
Key Milestones To-Date

- March 31 – April 14, 2020 Community Engagement Virtual Workshop
- S/CAP Co-Benefits Survey
- Council Study Sessions: 4/13/20, 6/16/20
- Commission Study Sessions
  - Utilities Advisory Commission: 5/20/20, 6/17/20, 2/3/21
  - Planning and Transportation Commission: 6/24/20
  - Parks and Recreation Commission: 6/30/20
- Fall 2020 S/CAP Webinar series
Highlights from June 16, 2020 Council Study Session

• Reviewed the S/CAP Potential High Impact Goals and Key Actions related to greenhouse gas (GHG) emissions reduction
• Reviewed the Spectrum of Tools for Achieving Climate Goals
• Preliminary feedback from Council on the updated High Impact Goals & Key Actions before AECOM and staff analysis
1. Retrofit all gas wall furnaces in multifamily buildings to electric heat pump systems for space heating by 2030

2. Electrify gas appliances in single family homes upon home sale beginning in 2025

3. Electrify water heating upon equipment failure replacement in single family homes beginning in 2025

4. Phase out fossil fuel use in existing buildings starting with areas that have older gas lines that need to be repaired or replaced. Disconnect natural gas distribution service to residential areas by 2030.
6/16/20: Energy High Impact Key Actions – Non-Residential Buildings

1. Electrify water heating and space heating in all K-12 facilities by 2030

2. Convert all rooftop gas packs on non-residential buildings to electric heat pump systems by 2030

3. Require all-electric non-residential new construction projects starting in 2021

4. Electrify 80% of existing city-owned buildings by 2030

5. Require all commercial buildings above 25,000 sq ft to reduce carbon emissions by 40% by 2030
6/16/20: Mobility High Impact Key Actions – Transportation / Vehicles

1. Provide safer infrastructure for vulnerable road users, such as children, seniors, pedestrians, and bicyclists to reduce Single Occupancy Vehicle (SOV) use for work trips

2. Reduce SOV mode share using pricing to manage our parking supply and adjust parking requirements

3. Build transit-supportive roadways

4. Enhance the efficiency of the existing traffic signal system to reduce idling

5. Improve our Transportation Demand Management strategies, including encouraging telecommuting as a new norm

6. Use land use to reduce vehicle miles of travel by thoughtfully locating people close to goods and services so they can more easily walk, bike or take transit to meet their needs
6/16/20: EVs High Impact Key Actions – Transportation / Vehicles

1. Require an appropriate percentage of all parking spaces at Palo Alto’s 800+ multi-family properties install EV chargers (e.g. 50% of all parking spaces)

2. Require an appropriate percentage of EV charger installations at all commercial parking spots (e.g. 25 to 50% of all parking spaces)

3. Implement a Palo Alto-specific Internal Combustion Engine (ICE) vehicle fee, tax and/or assessment to provide a disincentive for the ownership or use of a fossil fuel vehicle and fund incentives for VMT reduction and EV adoption

4. Require private bus fleets serving Palo Alto office campuses to electrify by 2030

5. Ban the registration of gasoline vehicles in Palo Alto by 2030
6/16/20: Spectrum of Tools for Achieving Climate Goals

Low Intervention
Examples:
- Early Adopters
- Voluntary Programs
- Awareness and Outreach
- Pilot Projects

Some Intervention
Examples:
- Council Policies, Plans, and Reach Ordinances
- Council Ordinances, Bans, and Mandates
- Financial Incentives

Higher Intervention
Examples:
- City-wide Voter-Approved Mandates or Financing
- Utility-scale Infrastructure Shift

Voluntary Market driven solutions ➔ Government driven solutions
• Several points are clear:
  – Climate change is urgent, there are costs to inaction
  – Costs and logistics of taking action are significant
  – While the cost looks large, it could be manageable

• Addressing transitional issues (reliability, resiliency, gas rates) is required to build trust

• We must address issues specific to the business community, low-income residents, and renters
Types of Outcomes Needed to Achieve S/CAP Goals

• Reduce vehicle travel through increased transit and bicycle use, telecommuting, use of small EVs like e-bikes
• For households that need to drive, encourage ownership of at least one EV, use it as frequently as possible
• Aim for most or all new & used vehicle purchases to be EVs or plug-in hybrids, except infrequently used vehicles
• Substantial growth in the use of EVs by commuters
• Targeted emissions reductions to multi-family and non-residential emissions focused on the most economically and technically feasible measures
• Electrify 100% of single-family residential buildings
S/CAP – Principles for Going to Scale

- Engage and raise awareness
- Activate early adopters and ensure good customer experience to create positive stories
- Reward neighborhood-level action (e.g., undergrounding for block-level electrification)
- Demonstrate care for small businesses, renters, low-income
- Seek ways to increase funding for greater impact prior to any ballot measure (e.g., on-bill financing, outside funding)
- Partner with major employers to maximize impact
- Clear, documented strategies before going to scale
- When community is ready, fully scale up
Foundational Implementation Activities

- Launch high touch, high participation voluntary programs
- Extensive awareness campaign
- Customer-friendly permitting for electrification
- Preserve and enhance electric reliability and resiliency
- Develop plan for scaling up programs to achieve emissions reductions goals

**Timeline:**
- Start immediately in 2021 after Council adoption
- Aim for clear progress on these items by 2022
- May need until 2024 to show adequate progress
Status of Deliverables

• Proposed Goals and Key Actions, incorporating community input: Updated and completed
• Sea Level Rise Vulnerability Assessment: Initiated
• 2019 vehicles miles traveled (VMT): Completed
• 2019 GHG inventory: Draft under review
• Business as Usual Forecast: Draft under review
• Impact Analysis of proposed strategies: Nearly final
  – Co-benefits analysis: Complete
• Analytical models for energy, transportation, electric vehicles and financing: Nearly final
• CEQA strategy: Finalized
2021 S/CAP Timeline

- April: Climate Change Protection and Adaptation Work Plan and Earth Day Report Council Study Session
- May: Council Study Session on technical analysis of the goals and key actions needed to achieve 80 x 30
- May: Commission Study Sessions
- Spring: Continued Public engagement
- Summer: S/CAP presented to Council for acceptance
- Fall: Sea Level Rise (SLR) Plan draft presented to Council
- By December: California Environmental Quality Act (CEQA) evaluation completed
- By December: S/CAP and SLR Plan with CEQA Review presented to Council for approval

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Thank You!

Brad Eggleston, Director of Public Works
Jonathan Abendschein, Assistant Director Utilities
Resource Management
Christine Luong, Sustainability Manager

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Certificate Of Completion

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