

## Climate Action Plan Progress Report

2021

### BUILDING ELECTRIFICATION

#### BE 1 ALL-ELECTRIC NEW CONSTRUCTION

- In 2019, the City adopted a reach code that encouraged building electrification by allowing for two options for the construction of new buildings, either constructing an all-electric building or constructing a mixed-fuel building that meets higher efficiency standards that exceed the State's requirements. See table below for more details. This reach code was in effect January 1, 2020 through December 31, 2020 and was later replaced.

##### ***Building Electrification Reach Codes (Effective January 1, 2020 – December 31, 2020)***

Building Type	Reach Code
New Single Family and Duplex buildings	<u>Two compliance pathways:</u> 1) Mixed fuel: Proposed Design Building shall be 2.5 EDR points less than the Efficiency EDR (roughly 15% above State Code) 2) All-electric: 0% above State Code
New Buildings with Office Use (including mixed-use buildings)	<u>Two compliance pathways:</u> 1) Mixed fuel: 10% above State Energy Code 2) All-electric: 0% above State Energy Code
All other building types including Accessory Dwelling Units	<i>No local amendment</i>

- 2020 Building Issuance Permit Analysis:
  - Seven permits for new all-electric ADUs.
  - The Waters Park Project will result in 190 all-electric dwelling units including 28 single family units and 162 condominium units.
- In 2020, the City adopted a reach code requiring residential buildings and office buildings be constructed all-electric. The reach code also requires that new residential buildings with 100% affordable units be all-electric or exceed the State Energy Code. This reach code is in effective January 1, 2021 through December 31, 2022 (the end of the triennial code cycle).

##### ***Building Electrification Reach Codes (Effective January 1, 2021 – December 31, 2022)***

Building Type	Reach Code
New Residential Buildings (including single family and duplex homes, multifamily buildings and Accessory Dwelling Units)	Required to be constructed all-electric

Building Type	Reach Code
New Nonresidential Buildings with Office use	Required to be constructed all-electric
New Residential Buildings with 100% affordable units	<u>Two compliance pathways:</u> 1) Mixed fuel: must exceed State Energy Code 2) All-electric: 0% above State Energy Code

- The following residential projects will be subject to the City's building electrification reach code and required to be all-electric: Concar Passage (961 units), 1919 O'Farrell (49 units), and Peninsula Heights (290 units). The Downtown Affordable Housing Project Kiku Crossing (225 units) is also planned to be all-electric. These projects amount to 1,525 new all-electric residential units.

## BE 2 ALL-ELECTRIC EXISTING BUILDINGS

- Through the BayREN Home + Program, residents can receive rebates for the installation electric equipment including, heat pump hot water heaters, heat pump dryers or induction cooktops.

## RENEWABLE ENERGY

### RE 1 PENINSULA CLEAN ENERGY

- The City of San Mateo had an average opt out rate of 2.8% for 2020. This low opt out rate means 97.2% of San Mateo residents and businesses are powered by PCE.
- Peninsula Clean Energy has an ambitious plan to have a diverse power portfolio that is greenhouse gas free will help the City reduce greenhouse gas emissions associated with electricity consumption. PCE adopted the following procurement goals:
  - 100% greenhouse gas free by 2021
  - sourced by 100% California renewable portfolio s eligible renewable energy by 2025, and
  - create a minimum of 20 MWs of new local power by 2025.

### RE 2 RENEWABLE ENERGY SYSTEMS FOR NEW AND EXISTING RESIDENCES

- Beginning in the 2019 Code Cycle, the State of California Building Code requires all residential new construction to install solar.
- The City provided information to property owners about discounts for solar including the annual Bay Area Sun Shares program and Peninsula Clean Energy's rebate for solar and battery storage.
- In 2020, the Community Development Department launched a new self-service online permit center in response to COVID-19. The online permit center allows Public to apply permits, submit plans, pay permit fees, receive issued permitted plans, and request inspections electronically. In addition, the "Virtual Over the Counter" featured in the online permit center allows a further streamlined and efficient process for permitting and installation of solar and battery storage systems.

***Solar Permits for Residential Buildings  
Issued By Year\****

\*Note: These totals are inclusive of battery storage.

Year	# of Solar Permits Issued	Total kW	Average kW per Installation
2020	248	1,844	7.4
2019	250	1,969	7.8
2018	166	1,056	6.4
2017	156	726	4.7
2016	221	1,046	4.8

***Battery Storage Permits Issued By Year***

Year	# of Battery Storage Permits Issued
2020	87
2019	42
2018	6
2017	9

### RE 3 RENEWABLE ENERGY SYSTEMS FOR NEW AND EXISTING NONRESIDENTIAL BUILDINGS

- The City adopted a reach code requiring the installation of solar on all non-residential new construction for the 2019 Code Cycle.

***Solar Permits for Nonresidential Buildings Issued By Year***

Year	# of Solar Permits Issued	Total kW	Average kW per Installation
2020	2	11.8	5.9
2019	1	92.4	92.4
2018	5	320.2	1,601.1
2017	2	28.7	57.3
2016	4	117.5	470.1

## ENERGY EFFICIENCY

### EE 1 RESIDENTIAL ENERGY EFFICIENCY RETROFITS

- The BayREN Home + program provides rebates for energy efficiency upgrades including building air sealing, insulation, duct replacement and sealing, and more. In 2020, 16 single family home retrofits were completed, this equals 41 individual measure rebates issued.
- In 2020, 44 new Energy Advisor leads were generated. The Energy Advisors are a resource to residents interested in making an energy upgrade or in the BayREN Home + program.

## EE 2 NONRESIDENTIAL ENERGY EFFICIENCY RETROFITS

- There are 19 certified businesses in San Mateo certified through the San Mateo County Green Business Program. Currently, there are 18 additional businesses that have registered and are in the process of certification.

## EE 3 RESIDENTIAL TREE PLANTING

- In addition to tree plantings in City parks, 150 trees are planted in City streets annually. Not all tree plantings are in residential areas but nonetheless help reduce the urban heat island effect and reduce cooling loads.

## MUNICIPAL ENERGY EFFICIENCY

### ME 1 ENERGY EFFICIENCY FOR NEW BUILDINGS

- The construction of Fire Station 25 is nearing completion. Fire Station 25 includes the installation of 10 kW of solar PV that exceeds the minimum required by the City's reach code.
- The San Mateo Wastewater Treatment Plant is pursuing certification for the Administration Building under LEED v4 for New Construction. The project is targeting a minimum LEED Silver certification. The project includes a 25 kW PV system on the roof of the Administration Building and installation of five electric vehicle chargers.

### ME 2 ENERGY EFFICIENCY AT EXISTING MUNICIPAL BUILDINGS

- In 2018, the City entered into a contract with PG&E for the Sustainable Solutions Turnkey (SST) program to for \$3.2 million worth of energy efficiency upgrades at City facilities:
  - Lighting upgrades at the following facilities: Second and El Camino Garage, Police Department Garage, Transit Center Garage, Tennis Garage, Main Street Garage, Central Garage, Joinville Ball Park, Central Park Ball Park, MLK Ball Park, and the Corps Yard.
  - Lighting and HVAC upgrades at the following facilities: Fire Stations 21, 23, 24, 26 and 27; Police Department, Beresford Recreation Center, Senior Center, City Hall, MLK Center, Joinville Swim Center, Poplar Creek Golf, Main Library, Hillsdale Branch Library, Lakeshore Preschool and Central Park Rec Center.
  - Estimated Annual Energy Savings: 1,831,170 kWh
  - Estimated Annual Gas Savings: 22,871 therms
- The City upgraded the Council Chambers restrooms and is in the process of upgrading the City Hall atrium restrooms. Both restroom upgrade projects include the installation of water efficient plumbing fixtures and low voltage lighting with automatic timers and vacancy sensors.
- The City will be starting Phase IV upgrades to restrooms at three park locations with water efficient plumbing fixtures and low voltage lighting with automatic timers and vacancy sensors.
- The City is in the process of updating one of the King Center kitchens with energy efficient appliances.

### ME 3 ALL-ELECTRIC MUNICIPAL BUILDINGS

- The City is constructing a new Downtown Parking Garage as part of the Kiku Crossing affordable housing project. The new Downtown Parking Garage will be all-electric and include the

installation of at least 26 electric vehicle chargers to comply with the City's reach code. The City will install a solar system on the parking garage to meet and likely exceed the City's solar reach code requirement.

- The City is participating in a critical facilities assessment with Peninsula Clean Energy to identify facilities to install solar and battery storage that might serve as a possible resilient site in the event of grid outages. Through this process, the City provided facility data to PCE for review and assessment. The San Mateo Police Department was selected as a site with potential opportunity, PCE and consultant staff toured the site and are currently undergoing further analysis.

## CLEAN TRANSPORTATION FUELS

### CF 1 ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

- More than 130 electric vehicle charging ports are available to the public throughout San Mateo. In 2020, supercharger stations were installed at the Laurelwood Shopping Center and Bank of America on El Camino Real near Hillsdale Shopping Center.
- The City adopted a reach code requiring a higher percentage of electric vehicle (EV) readiness in all new construction. The City also adopted a reach code requiring the installation of Level 2 EV Charging infrastructure in nonresidential new construction.

*Electric Vehicle Charging Permits Issued By Year*

Year	# of EV Charging Permits Issued
2020	25
2019	52
2018	41
2017	10
2016	5

### CF 2 ELECTRIC VEHICLE EDUCATION AND OUTREACH

- City staff promoted Peninsula Clean Energy's incentives for electric vehicles. Some programs are ongoing including the PCE Used EV Rebate Program that offers rebates for income-qualifying San Mateo County residents up to \$4,000 for the purchase of a used EV. PCE also offers an EV rental discount for those interested in experiencing an EV. In addition, PCE offered a limited time rebate for the purchase of a new all-battery electric vehicle or a new plug-in hybrid electric vehicle October through December 2020.

### CF 3 CLEAN CITY FLEET

- The City Council prioritized evaluation of the feasibility of a Green Fleet by 2030 for the FY 2021-22 Strategic Plan. As part of this effort, the City plans to review past-due replacement vehicles and determine replacement strategies. Furthermore, staff will evaluate future CNG facility maintenance costs and potential for installation of additional EV infrastructure at City facilities for fleet use.

- City staff have participated in the City of Fremont's Fleet Electrification Study Regional Working Group which has developed an EV Fleet "Best Practices Guide." The City will leverage other partnerships including San Mateo County's Facilities and Fleet Working Group to make progress on the City's Green Fleet goals.
- The City operates a fleet of 232 vehicles. Currently 59 of these vehicles are alternative fuel vehicles:

*City Fleet by Fuel Type*

Fuel Type	# of Vehicles
Hybrid (Gas/Electric)	25
CNG	19
Electric	14
Bi-fuel (CNG/Gas)	1

## CF 4 CLEAN FUEL AND VEHICLE EMISSIONS

- The DMV provides data on registered vehicles annually in the County of San Mateo. City level data is only available for 2018. Overall, the number of battery electric and plug-in hybrid vehicles is growing in the region.

*Vehicles by Fuel Type in the City of San Mateo*

Year	Battery Electric	Diesel	Ethanol	Gasoline	Fuel Cell	Hybrid Gas	Plug-in Hybrid	Natural Gas	Other	Total
2018 <sup>1</sup>	1,236	1,549	2,359	75,050	0	4,519	772	42	0	85,528

*Vehicles by Fuel Type in the County of San Mateo*

Year	Battery Electric	Diesel	Ethanol	Fuel Cell	Gasoline	Hybrid Gas	Plug-in Hybrid	Natural Gas	Other	Total
2020 <sup>2</sup>	15,820	15,743	24,032	166	608,904	35,586	7,029	390	15	710,685
2019 <sup>3</sup>	12,312	15,781	21,367	139	626,664	37,714	6,182	331	98	720,558
2018 <sup>4</sup>	10,604	16,247	16,924	132	609,866	37,383	5,779	348	126	701,794

## SUSTAINABLE TRANSPORTATION

### ST 1 BICYCLE MODE SHARE

- In response to health orders, the City implemented Safe Streets on residential streets to provide more space for recreating outdoors while social distancing. As of January 2021, the Safe Street on 28<sup>th</sup> Avenue from East Kyne Street to Saratoga Drive has transitioned into a bicycle boulevard.

<sup>1</sup> <https://www.dmv.ca.gov/portal/file/fuel-type-by-city-as-of-october-1-2018-pdf/>

<sup>2</sup> [https://www.dmv.ca.gov/portal/file/motorvehiclefueltypes\\_county\\_01012020-pdf](https://www.dmv.ca.gov/portal/file/motorvehiclefueltypes_county_01012020-pdf)

<sup>3</sup> <https://www.dmv.ca.gov/portal/file/california-motor-vehicle-fuel-types-by-county-01012019-pdf/>

<sup>4</sup> <https://www.dmv.ca.gov/portal/file/california-motor-vehicle-fuel-types-by-county-10012018-pdf/>

- The City is implementing its first bicycle boulevard on 28<sup>th</sup> Avenue between Mason Lane and El Camino Real. Construction began in October 2020 and work is expected to be complete by Spring 2021.
- The City received funding from the Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) to design and construct Class II bike lanes and a bicycle boulevard on Poplar Avenue, Delaware Street, Indian Avenue, and Humboldt Street.
- The City anticipates receiving \$1.66M from the 2021 Regional ATP Cycle 5 to fund the design and construction of a safe routes to school corridor comprised of a new Class IV separated bike lane and bicycle boulevard on Delaware Street.
- The City received \$153,000 in grant funding in October 2020 to improve bicycle and pedestrian access to the new Hillsdale Caltrain Station. A new bike facility will be constructed on 28<sup>th</sup> Avenue from Edison Street to El Camino Real that will close a gap in the bicycle network and connect bicyclists to the Caltrain station at 28th Avenue.

## **ST 2 PEDESTRIAN MODE SHARE**

- The City received \$75,117 in funding in July 2019 from City/County Association of Government of San Mateo County (C/CAG) TDA Article 3 Pedestrian and Bicycle Program Call for Projects. The funding will be used to develop a Transit-Oriented Pedestrian Access Plan, which aims to improve pedestrian conditions within one-half mile radius to the City's Caltrain stations and high-quality transit stops.
- The City is implementing Complete Streets improvements on North San Mateo Drive from Baldwin Avenue to Peninsula Avenue that include new pedestrian lighting, curb extensions at pedestrian crossings, and Class II bike lanes. Construction began in August 2020 and is expected to be complete in Spring 2021.

## **ST 3 MICROMOBILITY AND SHARED MOBILITY**

- City Council adopted the Shared Mobility Permit Program in 2019 but unfortunately did not receive any applications from shared mobility operators. At this time, shared mobility operators are focused on building out in larger urban markets (e.g., San Francisco, San Jose, and Oakland).
- Staff continues to participate in a Shared Mobility Working Group coordinated by Caltrain to facilitate regional partnerships and share best practices as related to shared mobility.

## **ST 4 PUBLIC TRANSIT SERVICE**

- City staff participate in Reimagine SamTrans effort to assess existing transit service and evaluate options for future mobility services.
- City staff are working with Caltrain staff to enhance bicycle parking and access to stations.

## **ST 5 COMMUTER PROGRAMS**

- San Mateo County's Transportation Demand Management Agency, Commute.org maintains a suite of programs aimed at reducing vehicle miles traveled. Commute.org provides carpool

incentives to employers and conducts outreach campaigns about available shuttle and vanpool options.

- COVID-19 drastically changed the workplace. Commute.org has maintained shuttle services in San Mateo and pivoted to providing employer resources focused on telework.

## ST 6 TRANSPORTATION DEMAND MANAGEMENT

- City staff applied for a grant funding to develop a citywide Transportation Demand Management ordinance.

## ST 7 TRANSIT-ORIENTED DEVELOPMENT

- The Rail Corridor Transit-Oriented Development Plan provides guidance for development within a half-mile of the Hillsdale and Hayward Park Caltrain station areas.
- Transit-Oriented Development projects approved in 2020 include the Passages and Kiku Crossings.
- Transit-Oriented Development projects that are currently under construction include the Station Park Green development, 1650 S. Delaware Street, 303 Baldwin Avenue (Trag's Market), and 2600 S. Delaware Street (Bay Meadows Phase II).

## SOLID WASTE

### SW 1 COMPOSTING PROGRAM

- Currently, 144 multifamily buildings out of 819 multifamily buildings have composting service. Staff are working on a number of actions to increase composting in multifamily buildings:
  - Recology staff is reaching out to HOA/property manager with support of City staff regarding composting programs including virtual meetings during COVID.
  - A new Multi-Family Property Manager Guide was recently developed and distributed to all multi-family rate payers. It includes tips and tools regarding proper disposal of garbage, recycling, compost hazardous waste, batteries, Christmas trees and large bulky items. The tools include Recycling Buddy bags, kitchen pails for compost, battery and cell phone buckets, and new picture heavy signage.
- The Organic to Energy Pilot Program at the Shoreway Environmental Center will start in 2021 after many delays due to COVID. The goal of the program is to extract all the organic wet waste out of the multi-family/commercial sector garbage using it for alternative energy diverting it from landfill. Data will be collected over the next six months. If all goes as anticipated, the program will go into full production early 2022.

### SW 2 EXPANDED RECYCLING SERVICE

- Recology reported no rejected loads of organic or recycling materials due to contamination. The current levels of contamination threshold per the franchise agreement is not to exceed 8% for recycling, 10% for commercial organics and 5% for residential organics.
- Below are the State's compliance goals for the City's waste generation and the City's actuals. To date, the City is exceeding the State's compliance goals.



***City's Waste Generation Compared to State Goals***

Pounds of Waste Generated per Day	State's Not to Exceed Compliance Goal	City's Actuals
Resident	5.8 pounds	4.5 pounds
Employee	13.3 pounds	8.4 pounds

**SW 3 WASTE AWARENESS AND SOURCE REDUCTION**

- The City Council adopted the "Disposable Food Service Ware Ordinance" modeled after the County of San Mateo's ordinance. The ordinance requires food facilities distribute disposable items that are fiber-based and compostable. The ordinance will go into effect in October 2022.
- The City is working with two volunteers to encourage food facilities to take the "Quit the Cutlery" pledge. By taking the pledge, a food facility commits to providing cutlery, straws, and condiment packets only by request or acceptance by the customer. The volunteers made 60 phone calls and e-mailed 95 businesses. To date, seven restaurants have signed the "Quit the Cutlery" pledge.
- Team Up To Clean Up brings San Mateo residents and neighborhoods together in a joint effort to eliminate litter in our streets, storm drains, parks, and waterways. Our City program organizes once a month cleanups in areas in need of cleaning up. Our program also teamed up with the County's Bay Front Cleanup initiative where San Mateo residents picked up 362.35 lbs of trash and covered 7.79 miles.

**WATER AND WASTEWATER****WW 1 WATER EFFICIENCY RETROFITS FOR EXISTING BUILDINGS**

- CalWater provides rebates for high-efficiency toilets, high-efficiency clothes washers, smart irrigation controllers and high-efficiency sprinkler nozzles for residents.
- CalWater provides rebates for high-efficiency toilets, high-efficiency urinals, smart irrigation controllers, high-efficiency sprinkler nozzles, large rotary nozzles, and spray bodies with integrated pressure and check valves for commercial customers.
- The City of San Mateo continues to provide a matching funds for rain barrels rebates for residents.

***Rain Barrel Rebates***

Year	Number of Rain Barrel Rebates Distributed
FY 2020-21	8 (to date)
FY 2019-20	2
FY 2018-19	10
FY 2017-18	34

## WW 2 WATER EFFICIENT LANDSCAPING

- On October 21, 2020 the City hosted a workshop on “Native Plants and Pollinator Gardens” in partnership with the City of Millbrae and BAWSCA. In 2020, all of BAWSCA’s workshops were held virtually and were accessible to all San Mateo residents.
- At the entrance to Central Park off 9<sup>th</sup> Avenue, the ornamental lawn was removed and replaced with a drought tolerant planting in 2020.
- Staff have increased the use of wood mulch to help reduce moisture requirements for plantings at City parks.

## WW 3 WATER EFFICIENCY IN NEW CONSTRUCTION

- Staff will explore reach codes for indoor and outdoor water efficiency for the next building code cycle.

## OFF-ROAD EQUIPMENT

### OR 1 ALTERNATIVE FUEL LAWN AND GARDEN EQUIPMENT

- Staff are focusing on outreaching to property owners and landscaping companies about the availability of electric landscaping equipment.
- Staff is in the process of developing a rebate program for electric leaf blower equipment.
- At City facilities, staff continue to use electric power equipment in the Japanese Tea Garden.
- Staff continue to review electric power equipment and participated in a demonstration of new products from a new vendor. No equipment replacement purchases were made recently, so the City has not invested in additional electric equipment.