



City of Fremont

Sustainability Best Practice Activities



City of Fremont

California communities are leading the fight against climate change. From small projects to large-scale programs, cities and counties are making great strides to create healthy, sustainable and economically prosperous communities. Participants in ILG's Beacon Program serve as leaders in this effort, making measureable contributions to reducing energy and greenhouse gas emissions, and sharing their sustainability best practices.

This document represents a collection of activities your agency has completed in 10 areas of sustainability. While local governments have a wide range of choices available to address climate change, these activities represent the unique opportunities and values in your community. These voluntary actions are essential to achieving California's goals to save energy, reduce greenhouse gas (GHG) emissions and create more sustainable communities.

SPOTLIGHT AWARD Areas of Accomplishment	SILVER LEVEL	GOLD LEVEL	PLATINUM LEVEL
Agency GHG Reductions	2017 (7%)		2021 (26%)
Community GHG Reductions		2017 (11%)	2021 (26%)
Agency Energy Savings			2021 (46%)
Natural Gas Savings	2017 (6%)		2021 (33%)
Sustainability Best Practice Activities		2017	2021
Beacon Vanguard Award	2017		2021

Cities and counties throughout the Golden State should be proud of the accomplishments made through the hard work, innovation and collective community action. The Institute for Local Government applauds your achievements and thanks you for your continued participation in the Beacon Program.

The Beacon Program is sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative (SEEC). SEEC is an alliance between three statewide non-profit organizations and California's four Investor-Owned Utilities. The Beacon Program is funded by California utility ratepayers and administered by Pacific Gas and Electric Company, San Diego Gas and Electric Company, Southern California Edison and Southern California Gas Company under the auspices of the California Public Utilities Commission.





Energy Efficiency and Conservation Activities

Silver

1. From 2016 through 2018, the city worked with ENGIE, an energy services company (ESCO), on a comprehensive energy and water efficiency upgrade project that included converting all primary roadway and residential street lighting to LEDs and upgrading all public park and plaza lighting to LEDs. The streetlight retrofit project included substantial community education on the benefits of LED streetlights, including improved light quality and safety for drivers and pedestrians, reduced maintenance costs and a longer lifetime than the previous high-pressure sodium lighting, and of course, reduced energy consumption. The LEDs are saving the city \$590,000 on annual electric utility bills, in addition to reduced maintenance costs, and they reduce the city's energy consumption by 4 million kilowatt-hours annually, lowering lower greenhouse gas emissions by 775 metric tons.

Gold

- 2. In 2017, the city installed variable speed pool pump controls at the Aqua Adventure Water Park that have saved water, energy, and money. Additionally, the city installed a solar panel carport structure at the city's Maintenance Center to offset the facility's entire electricity usage, reducing greenhouse gas emissions by over 100 tons of carbon. The system is pre-wired for future EV charging stations for city fleet vehicles. Together with the solar already installed at the Aqua Adventure Park, Fremont Police Complex, and Irvington Community Center, this will amount to more than 1.5 megawatts of power, the equivalent of 422 Fremont homes' annual electricity use.
- 3. Since 2009, the City of Fremont has partnered with Rising Sun Center for Opportunity to offer the California Youth Energy Services (CYES) program. CYES hires and trains local youth to conduct "Green House Calls" in Fremont, providing energy and water efficiency recommendations and installing simple upgrades like water aerators and energy-efficient light bulbs. To date, a total of 3,069 Fremont homes have been served, saving 1.1 million kWh of electricity and 15,000 therms of natural gas, and reducing household water consumption by over 3.4 million gallons.





















Energy Efficiency and Conservation Activities

- 4. In January 2010, Fremont city council adopted a resolution authorizing the city to join the CaliforniaFIRST PACE Program. It has been providing energy efficiency financing in Fremont to commercial properties since 2012 and to residential properties since September 2014. Supporting an expanded PACE marketplace serves to implement the city's Climate Action Plan (CAP), which includes policies to develop comprehensive energy efficiency programs for the residential and commercial/industrial sectors. The CAP specifically includes action item EA-3 to "encourage the installation of energy efficiency retrofits by creating a Property Assessed Clean Energy (PACE) program, which allows qualified residential and non-residential property owners to repay the cost of installing energy efficiency retrofits on their property tax bill." In alignment with the goals of the CAP and to create a more competitive PACE marketplace, in June 2016, city council further authorized the following additional residential and commercial PACE programs: California HERO Program, Figtree PACE Program, Ygrene PACE Program, CSCDA Open PACE, and CMFA Open PACE.
- 5. Since 2013, the city has collaborated with the Bay Area Regional Energy Network (BayREN) to provide energy efficiency education, advising, and incentives to single and multi-family property owners. From 2013 through 2018, BayREN's Home Upgrade (HU) and Advanced Home Upgrade (AHU) programs provided rebates to help retrofit 224 Fremont homes with energy-efficient insulation, heating, and cooling systems. Since 2019, the Home+ Program, which has replaced the HU and AHU programs, has served 133 Fremont homes with 547 total efficiency measures, saving 23,860 kWh and 16,834 therms of energy. Since 2017, 213 Fremont homes have additionally received a Home Energy Score through BayREN, which is a U.S. Department of Energy rating system of a home's energy efficiency level. BayREN's Bay Area Multifamily Building Enhancements (BAMBE) program has additionally provided technical assistance to Fremont multiunit residential property owners/managers since 2013, with a total of 394 units completing upgrades, saving 274,045 kWh and 8,436 therms of energy. There are an additional 432 units participating in BAMBE that are currently under construction (expected to be complete in 2021), as well as an additional 170 units receiving technical assistance.
- 6. In 2016 the city worked with the Green Impact Campaign (GIC) to host a Kilowatt smackdown event. This event utilized student volunteers to conduct free energy assessments for local businesses. GIC provided the students with the training and tools they needed to complete the assessments, and students gained real-world leadership skills to create a more sustainable environment. Business owners were provided with customized savings reports, referrals to utility rebates, and information on how to become a certified Bay Area Green Business. 17 students helped 481 local businesses identify savings of 3,162,000 kilowatts of energy, 260,000 gallons of water, and \$637,000. Along the way, these students earned cash prizes, company swag, and tours of local sustainability companies.























Water & Wastewater Systems **Activities**

Silver

1. From 2016 through 2018, the city worked with ENGIE, an energy services company (ESCO), on a comprehensive energy and water efficiency upgrade project that included upgrading plumbing fixtures (225 toilets, 74 urinals, 146 faucets, and 61 showerheads) at 25 city buildings and parks to high-efficiency options, installing weather-based irrigation controls at 218 stations in 8 city parks, and installing energy-saving pool pump controls at the Aqua Adventure Water Park. Together, all these upgrades save the city 8.7 million gallons of water annually.

Gold

- 2. In 2017, the City of Fremont purchased street sweeping vehicles with water-efficient designs from Tymco Street Sweepers, which use "misting" technology that uses a fraction of the water required by most street sweepers. Tymco's broom design improves efficiency by increasing sweeper coverage and effectiveness. Prior to the upgrade, each street sweeper required 1200-1800 gallons of water per day, while the Tymco sweepers use less than 200 gallons per day. One sweeper saves about 240,000 gallons of water per year.
- 3. The city has adopted ReScape's Bay-Friendly practices for landscaping and gardening. ReScape promotes a whole systems approach to earthscaping that works in harmony with the natural environment. The landscaping practices address the fact that one input affects the whole. They are based on 8 core principles that foster soil health, save water, sequester carbon, and protect valuable resources while reducing waste and preventing pollution. Saving water means using a holistic approach of creating drought-resistant soils with compost and mulch, selecting plants naturally adapted to summer-dry climates, using stormwater, greywater and recycled water in the landscape as much as possible, and using efficient irrigation systems that include self-adjusting, weather-based controllers.

Platinum

4. The City of Fremont Landscape Development Requirements and Policies (LDRP) require following the Water Efficient Landscape Ordinance (WELO) set by the state Department of Water Resources and Bay-Friendly Landscaping (BFL) principles set by ReScape California. In 2012 the city council adopted an ordinance requiring most private development projects in the city to meet all of the goals set forth by BFL, but at a minimum require three that are not included in WELO. Those three include choose and locate plants to grow to natural size and avoid shearing and do not plant invasive plant species.























Water & Wastewater Systems **Activities**

- 5. In 2012, the City of Fremont installed two tree well filter designs that are used to treat public right of way in various projects throughout the city. The design adds flexibility in their use in that they can be installed in pedestrian-friendly urban environments. The city used two designs to install over 450 tree well filters. The city received a grant to monitor the two tree well filter designs off of Osgood Road as a way to better understand the effectiveness and design of the systems. Results from this study show that the tree well filters likely meet the flow and volume reduction targets, while reducing the concentrations of a range of pollutants, even though some nutrients appeared to be sourced from the filters. As part of the grant, the city also conducted a public outreach portion that included the installation of an interpretive sign and tours with local college students to explain the function of the tree well filters and other bioretention areas installed throughout the city.
- 6. During the last major drought in California that peaked in 2015/2016, the City of Fremont partnered closely with the Alameda County Water District, which serves Fremont, Union City, and Newark, to help educate residents and businesses on the benefits of water conservation. These efforts included promoting water rebates offered by ACWD and the State of California for water efficient toilets, weather-based irrigation controls, lawn conversions, and rain barrels through City channels such as the city website, community newsletters, social media, and at community events and workshops. The city also helped to advertise ACWD's free water conservation kits, as well as encourage residents to report water waste through ACWD's online portal. In addition, the city developed a new webpage dedicated to water-wise gardens (https:// fremont.gov/waterwisegardens), which includes information on city landscaping requirements, as well as best practices such as sheet mulching and composting, planting with natives, using permeable materials, utilizing regenerative landscaping practices, and using artificial turf sparingly. As we enter another drought year, the city is continuing to collaborate with ACWD on additional ways we can collectively promote water conservation. This is especially relevant in the context of ACWD's recent adoption of a Water Efficiency Master Plan, which provides a roadmap for its water use efficiency program over the next 5 years.























Green Building Activities

Silver

1. The city's Green Building webpage (www.fremont.gov/GreenBuilding) gives residents information and resources on city policies related to green buildings and other standards they may help in any development or upgrades they are undertaking. The city's website, Fremont.gov, is currently being refreshed, with an updated and more user-friendly version expected to debut by the end of 2021. Additionally, city staff share information about green building on social media, through the Fremont Green Challenge Newsletter, and in other city communications as relevant.

- 2. The City of Fremont works closely with the Bay Area Regional Energy Network (BayREN) to support energy efficiency and electrification technical assistance and financial incentives for existing single and multifamily residential, small to medium business, and municipal property upgrades, as well as to support implementation of and updates to statewide building codes and standards. Fremont is also the home of the first ZNE retrofit of an advanced manufacturing facility in the nation. This effort was the work of Mynt Systems and Sharp Development Company to upgrade the Sonic Manufacturing facility in Fremont's Innovation District. Based on the widespread success of this project, the city is now exploring the possibility of scaling the approach that Sharp Development and Mynt Systems took with Sonic and rolling it out to other commercial/industrial facilities through approaches that would allow it to scale, such as matchmaking of building/asset managers with turnkey project management firms, better access to financing, a robust marketing and education program, and/or deep technical assistance.
- 3. In 2006, the Fremont city council passed a resolution requiring all new city facilities over 10,000 square feet incorporate project features so as to qualify for LEED certification at the Silver level or higher. The resolution mandates that as long as the payback period for energy, water, and other environmental savings associated with such projects can be achieved within fifteen years, the city will require that the project achieves silver level certification. In other cases, facilities will incorporate feasible sustainable practices within the project budget. Since this resolution, the city has built three new Fire Station facilities, all of which have attained LEED certification, with one achieving Silver level certification and another reaching Gold. The newest city facility, the Downtown Events Center, is not only being built to exceed LEED silver standards but will also be the city's first all-electric facility as well as incorporate a rooftop solar PV system.























Green Building Activities

- 4. In 2017, the City of Fremont adopted a reach code for Outdoor Lighting. Under the 2016 California Energy Code, maximum allowable wattages are established for various non-residential outdoor lighting applications. To promote the use of high-efficiency LED lighting in these types of applications, the City of Fremont adopted a reach code that reduces the maximum allowable wattages of outdoor lighting fixtures in new commercial construction projects and major retrofits. The benefits include promotion of high-quality LED technologies, long -term energy savings, reduced greenhouse gas emissions, more advanced lighting controls, and increased nighttime visibility.
- 5. Under the most recent CalGreen requirements, all new construction must be EV capable. In order to better support Fremont's existing EV ownership levels as well as promote further EV adoption, in 2017 the City of Fremont adopted an EV reach code that goes significantly beyond the CALGreen mandatory measures to require one EV Ready parking unit equipped with an EV charging unit per dwelling unit on single-family residential projects. Additionally, Multifamily residential projects of 3 units or more and all non-residential projects must provide EV Readiness for approximately 10 percent of the total number of new parking spaces. This is equivalent to the Tier 2 CALGreen option for non-residential developments. Fremont is one of the national leaders in Electric Vehicle adoption, and these policies help to ensure residents can continue to be ahead of the curve.
- 6. Under the 2016 California Energy Code, new residential and non-residential developments must be designed to be "solar ready" by providing for a solar zone and a solar pathway that will enable future solar installations. In order to expedite the adoption of solar technologies, the City of Fremont adopted an energy reach code in 2017 that goes beyond the minimum provision of solar readiness to require the mandatory installation of solar photovoltaic (PV) systems in new residential developments. Prescriptive minimum solar PV system sizes are required for residential buildings with up to 4,499 square feet of conditioned space. For buildings 4,500 square feet or above, solar PV systems must be sized to meet a minimum percentage of total building "timedependent valuation" (TDV) energy use. Alternative renewable energy systems including ground-mounted or carport solar or wind energy systems may be considered. Developers may also achieve compliance with the ordinance by meeting the energy efficiency standards established under CALGreen Tier 1. In addition to meeting minimum system sizing requirements, developers must provide solar readiness beyond the minimum required system sizes. Developers must also offer expanded system sizes to potential buyers. Developers are encouraged to consider expandable solar technologies and to design for all-electric building energy systems. The benefits of long-term energy savings to residents and the reduced environmental impact of new residential developments helps Fremont transition to a renewable energy economy and align with statewide goals of achieving zero net energy in new residential construction.























Waste Reduction and Recycling **Activities**

Silver

1. Since 1996, the City of Fremont has partnered with the Fremont Unified School District to fund a District Recycling Coordinator position to direct the overall waste management and waste reduction efforts for all schools and offices within the District. Primary responsibilities for this role include collaborating with principals to approve programs for schools; providing direction and resources to all District offices; working with City of Fremont representatives and providing information on a regular basis; working with the solid waste contractor representative and managers to ensure smooth running of daily pick up operations; understanding the city and county laws to properly store and dispose of hazardous waste and ensuring that the District is in compliance; promoting and expanding the organics recycling programs at District school sites; and collaborating with various county organizations such as Stopwaste to promote waste reduction efforts. By placing a single individual in charge of recycling and waste reduction programs, the city ensures that there will be a higher level of focus and motivation pertaining to waste reduction efforts within the public school facilities themselves, as well as creating a culture of education and awareness among Fremont's youth on the importance of these efforts.

- 2. In order to reduce waste and the harmful environmental impacts of single-use disposable plastic products, city staff are provided with a ceramic plate and bamboo utensils to use around city facilities. Additionally, most staff have access to kitchens where they can store and wash their dishes. Staff are also encouraged to consider using reusable dishware for city events rather than disposables, and city council members have been provided with reusable cups and mugs so that they can avoid drinking from disposable water bottles. The city is also researching options for installing water-bottle refilling stations in city offices to replace older drinking fountains.
- 3. The Bay Area Green Business Program has operated across Alameda County since 1996. The City of Fremont collaborates with the Green Business partnership to equip local businesses with information on how to conserve energy and water, reduce waste, prevent pollution, and minimize their overall carbon footprint. Businesses that meet these improved environmental standards are recognized as Bay Area Green Businesses. Fremont currently has 18 certified Green Businesses, and honors recently recertified businesses annually at city council meetings.























Waste Reduction and Recycling **Activities**

- 4. The City of Fremont's Waste Handling Plan provides specific guidelines for managing waste produced through construction and demolition projects. As part of these guidelines, Fremont passed a Construction Debris Recycling Ordinance in 2009, which requires 100% of asphalt, concrete, and dirt used in construction projects to be reused or recycled. Additionally, 50% of all remaining project debris must be reused or recycled. The city updated this ordinance in January 2017 to meet CalGreen standards, which mandate that 65% of remaining project debris must be reused or recycled in the case of new residential construction projects. In 2009, the city also passed a landfill ban on plant debris, requiring that 100% of plant and tree debris must be separated and composted. In order to ensure that these standards are met, contractors are required to submit receipts for recycled and discarded materials and complete a Debris Diversion and Disposal Report. The city's Environmental Services Division developed a dedicated waste tracking website (http:// www.Fremont.WasteTracking.com) to help contractors manage the waste produced during major projects. In 2016, the city tracked 214 projects resulting in the reuse of 25,780 tons of concrete, the recycling of 6,052 tons, and the landfilling of only 2,829 tons.
- 5. There are battery bins available to the public in the city's Development Services Center, and battery bins for staff throughout city facilities. A household hazardous waste facility run by the Alameda County StopWaste agency is available in Fremont for residents to bring their hazardous waste, including lightbulbs and batteries, for proper disposal. Residents can also coordinate with Republic Services, the city's trash hauler, for curbside pickup.
- 6. In January 2011, the City of Fremont instituted a ban on the use of expanded polystyrene for take-out food packaging at all Fremont food vendors. Food vendors are expected to use compostable or recyclable food service ware and can face a fine of up to \$500.00 per day if these guidelines are ignored. The city also offers an online form (https://Fremont.gov/forms.aspx?fid=195) where residents can report restaurants that do not comply with the polystyrene (or Styrofoam) ban. Through this ban, the city aims to reduce the amount of waste that ends up in the landfills and eliminate the threat that Styrofoam poses for local wildlife.























Climate-friendly Purchasing Activities

Silver

1. In 2006, the City of Fremont adopted Administrative Regulation 3.10 - "Purchasing Recycled and Waste-Reducing Products", a green purchasing policy intended to eliminate or reduce the city's purchase of products with avoidable toxins, support strong recycling markets, reduce the quantity of materials landfilled, conserve natural resources, and educate City staff on green purchasing practices. Notable specifications include doublesided printing for any non-legal documents; the use of recycled, remanufactured products, reusable, refillable, and/or compostable products; a minimum of 30% post-consumer recycled paper content; preferences for locally-generated mulch or compost in landscaping applications; avoidance of PVC, chlorine, and mercurycontaining products; and preference of compressed natural gas (CNG), biofuel, hybrid, electric battery, and/or fuel cell over diesel-powered fleet vehicles whenever possible. These regulations apply to all Departments and Divisions within the City of Fremont and encourage city staff to make purchasing decisions that exceed the minimum guidelines for sustainable products whenever possible. Staff is in the process of updating the policy to better align with updated Climate Action Plan goals as well as to comply with SB 1383, which requires local governments to directly use the products made from recycled organic material - such as renewable energy, compost, and mulch - within city operations.

- 2. In June 2018, the Bay Area Air Quality Management District (BAAQMD) awarded the City of Fremont with a \$245,000 Climate Protection Grant for a Municipal Fleet Electrification Study. This project explored the role of solar photovoltaic (PV) renewable energy systems, energy storage systems (ESS), and electric vehicle supply equipment (EVSE) to scale solutions for both ongoing facility energy demands as well as increasing the adoption of zero-emission vehicles in municipal fleets. The Fleet Electrification Study analyzed 388 of the City of Fremont's 543 total fleet assets (excluding assets that were highly specialized, not motorized), identifying opportunities for short and long-term vehicle electrification as well as the infrastructure needs to support this transition. Replacing the city's passenger vehicles and trucks with electric alternatives is estimated to reduce fleet vehicle greenhouse gas emissions by about 53% by 2030. This study is currently being used to update city purchasing policies and Capital Improvement Plan to increase the rate at which fully electric vehicles are purchased.
- 3. The city promotes the California Green Business Network, including by honoring the businesses annually at a city council Meeting. The program distinguishes and certifies small to medium-sized businesses that protect, preserve, and sustain the environment. Additionally, the city's Economic Development webpage highlights Fremont's green business sector and the role it plays in distinguishing the city, and the Economic Development social media channels frequently promote environmentally-friendly businesses and business practices.























Climate-friendly Purchasing Activities

- 4. In April of 2017, Fremont held its first meeting of a newly formed internal city Green Team. This Green Team consists of representatives from a variety of city departments with the goal of incorporating a broad spectrum of perspectives to implement environmentally-focused projects within various areas of city operations. Green Team project ideas are designed to have widespread benefit, reduce staff workload, save resources, free up budget, and have a positive environmental impact. Project ideas include concepts such as improving employee commutes, reducing fossil fuel consumption in the city fleet, saving facility water and energy, updating the Green Purchasing Policy and adopting a Surplus Policy, reducing paper waste, improving facility recycling and reuse options, creating water-efficient and biodiverse landscapes, divesting city funds from fossil fuels, and implementing a "Green Employee" educational and behavior change program.
- 5. In 2014, the City of Fremont's Environmental Services Department developed and implemented an internal Freecycle program that provides city employees with the opportunity to drop off usable and working office supplies at the "Freecycle Store". From there, donated items are reorganized and made available for other city employees to pick up year-round, thereby reducing the amount of surplus purchasing and encouraging materials reuse. The city also hosts an annual Spring Freecycle event to promote the Freecycle store and create a fun opportunity for city employees to learn about the benefits of participating in the program and be recognized for their reuse efforts.
- 6. When new staff the City of Fremont's landscape design or maintenance divisions, the city will send them to Rescape training as appropriate. ReScape is based on 8 core principles that foster soil health, save water, sequester carbon, and protect valuable resources while reducing waste and preventing pollution. As a matter of practice, city landscaping staff purchase and plant native and drought-tolerant plants, use organic compost and mulch, install weather-based controllers, point source low volume irrigation, mulch on-site in maintenance, space plants so they don't outgrow their space, use sustainable and recycled materials in construction, divert almost 100% of construction waste, limit turf to recreation areas, use integrated pest management, and do not specify the use of any invasive species.























Renewable Energy and Low-**Carbon Fuels Activities**

Silver

1. In June 2021, the city authorized the purchase of Renewable Diesel to replace standard Diesel Number 2 for all municipal diesel-powered mobile and stationary equipment. This includes about 90 city fire trucks, street sweepers, dump trucks, pickup trucks, lawnmowers, backhoes, tractors, and vacuum trucks, as well as backup diesel generators. Renewable Diesel, which is refined from 100% renewable sources such as cooking oils, vegetable oils, and animal fats and that is refined to the same molecular structure as petroleum diesel, will result in an immediate 13% reduction in total fleet emissions. This switch not only reduces overall carbon dioxide emissions but also reduces particulate matter hydrocarbons (black smoke visible when starting a cold engine), nitrogen oxides, and carbon monoxide.

- 2. In order to make solar permitting as convenient as possible, the City of Fremont provides streamlined processing for solar permitting, with small residential projects reviewed within 3 business days. Solar permits were one of the first that could be submitted online, in an effort to make the process even easier and more convenient. In June 2020, the city implemented an online submittal process for all new permit requests using the city's Citizen Access portal. The online submittal process can now be used for all new permit requests including planning permits, building/fire permits, and engineering permits. This includes building permits for basic home upgrade projects like water heater replacements, roof replacements, and minor kitchen/bathroom remodels. In addition to online permit requests, Citizen Access allows residents, businesses, and visitors to access permit records, pay permit fees, check on the status of in-progress records, schedule building inspections, and report code enforcement violations online.
- 3. The City of Fremont currently operates 17 publicly accessible electric vehicle (EV) charging stations at city facilities and along Capitol Avenue in the city's downtown. In September 2018 the Fremont city council approved to adjust the fee for these stations from an hourly rate of \$1.50 to a \$0.35 per kilowatt-hour rate. The adjustment creates a more equitable fee structure as it allows drivers to charge their vehicles at a consistent price for the amount of power dispensed, regardless of the speed at which their vehicles are able to charge. The city remains committed to providing opportunities for residents to charge their vehicles throughout Fremont, further encouraging the transition to electric vehicles and decreasing community greenhouse gas emissions.























Renewable Energy and Low-Carbon **Fuels Activities**

- 4. In 2016, the City of Fremont adopted an expedited, streamlined permitting process for electric vehicle charging stations that complies with California AB 1236. This process allows for electronic plan submittal and provides for a checklist of all requirements with which the electric vehicle charging stations shall comply to be eligible for an expedited review. The electric vehicle permit process, standards, and checklist all comply with the recommendations contained in the "Plug-In Electric Vehicle Infrastructure Permitting Checklist" of the "Zero-Emission Vehicles in California: Community Readiness Guidebook" published by the Office of Planning and Research. In 2021, East Bay Community Energy's service territory of Alameda County plus the City of Tracy became the first major population center to become fully compliant with AB 1236. Each jurisdiction, including the City of Fremont, was recognized with a Gold Medal Award from the Governor's Office of Business and Economic Development for its contribution to Alameda County's 100% EV Charging Station Permit Streamlining achievement.
- 5. The City of Fremont works closely with East Bay Community Energy, a local energy community choice aggregator, to plan for increased electric vehicle charging in the city and the region to accommodate residential and business use, including delivery vehicles, and other expected heavy-duty needs. EBCE has collaborated with the city to identify both public and private surface lots and parking garages that could support DC fast charging hubs for multifamily residents as well as drivers of taxis and transportation network companies (Uber, Lyft, etc.) EBCE has also been awarded a California Energy Commission grant for a Medium and Heavy-Duty Goods Movement Electrification Blueprint. This effort will identify opportunities for the electrification of medium and heavy-duty vehicle fleets located within EBCE's jurisdictions, specifically analyzing where robust EV charging infrastructure is needed and to support the electrification of this vehicle class. Having a plan for this infrastructure in place and beginning to implement it will allow the area to continue to be a leader in electric vehicle adoption.
- 6. Since 2015, the city has partnered with the Bay Area SunShares Program to offer a group solar purchasing effort, directly helping 101 homes sign contracts for discounted solar electric systems and adding an additional 534 kW of solar production capacity to the grid. In 2020 the SunShares program offering included the option of battery storage systems, with 2 additional Fremont homes contracting just for battery storage systems. Also new in 2020, East Bay Community Energy (EBCE)—Fremont's local clean energy provider—launched the Resilient Homes Program, with 10 Fremont homes contracting for solar electric + battery energy storage systems that offer backup power during grid outages. The city is collaborating with SunShares and EBCE to make these programs available again to residents in the fall of 2021.























Efficient Transportation Activities

Silver

1. In May 2017, Fremont's mayor and city council initiated the process to develop a Mobility Action Plan and appoint a Mobility Task Force to guide staff and consultants on Fremont's transportation issues and needs. From its inception, the goal of the Mobility Action Plan would be to address traffic congestion, improve local multimodal circulation, reduce traffic crashes, and adopt new transportation technologies. The Fremont Mobility Action Plan was developed from community input solicited at five community events, a topic posted on Fremont Open City Hall, the city's online civic engagement forum, and 11 Mobility Task Force meetings. The Mobility Action Plan is intended to guide the city's local implementation priorities and regional advocacy efforts over the next five years. Recommendations in the plan include topics of traffic signal modernization, school zones and access, travel alternatives, traffic safety program, new technologies and smart mobility, and regional policy and projects. The city council unanimously adopted the Mobility Action Plan on March 5, 2019. As part of the plan's implementation, the city has formed a Mobility Commission to help implement the plan and continue to prioritize local and regional mobility efforts in Fremont.

- 2. The city's traffic signals are all actuated primarily by the use of detectors buried in the pavement with a small number using video cameras mounted overhead. Most traffic signals along major travel corridors operate under coordination to progress traffic through multiple signals with the goal of minimizing stops and delays to improve traffic flow and reduce tailpipe emissions. Traffic signals operate in coordination primarily during morning and evening peak commute hours with some also operating in coordination during the mid-day.
- 3. The Roundabout project at the intersection of Argonaut Way, Parkhurst Drive, and Walnut Avenue is a traffic calming construction project that is meant to improve the safety of all users of this roadway, vehicles, and pedestrians alike. What was a very rapidly traveled and oftentimes unsafe roadway, has been transformed into a much more neighborhood-friendly road. The roundabout now slows vehicular traffic down to a safer 25 miles per hour, while also providing three separate crosswalk paths across the roadway. A raised safety buffer, adjacent to the roadway can be utilized by emergency vehicles and commercial trucks in extreme circumstances. The planting of an attractive, drought-tolerant landscape within the roundabout and medians, and the restoration of most of the existing roadside plantings, will make this intersection more visually appealing as the years go on. The immediate result has been a much safer experience for everyone in the area.























Efficient Transportation Activities

- 4. The City of Fremont's 2018 Bicycle Master Plan identifies projects and programs to make Fremont a city in which bicycling is safe, comfortable, and convenient for people of all ages and abilities. The plan was initiated in March 2016 and incorporates community input provided via meetings of the city's Bicycle and Pedestrian Technical Advisory Committee, public workshops, tables at community events, and interactive online maps. The plan identifies a 5-year priority network of "low stress" bicycling corridors comprised of facilities that are either on low traffic volume roadways or physically separated from traffic. These facilities are designed to appeal to the large percentage of bike riders that are interested in bicycling for transportation and recreation but concerned about the safety of riding with high-speed traffic. The plan was presented to city Advisory Committees from May 2017 to June 2018. The plan was approved and adopted by city council on July 10, 2018.
- 5. The city's Pedestrian Master Plan envisions Fremont as a community that inspires people of all ages and abilities to walk for everyday transportation, recreation, and health. The plan identifies goals in the areas of activity, safety, infrastructure and design, connectivity and accessibility, and land development. The plan includes capital projects including sidewalk gap closures, intersection improvements, streetscapes, roadway projects, pathway and trail projects, and non-infrastructure projects including education, encouragement, enforcement, and evaluation programs. The plan was adopted by city council in December 2016.
- 6. The city is working to construct a network of "all ages and abilities" bicycle facilities as outlined in its Bicycle Master Plan. The city develops and implements an annual project to stripe new bikeways and enhance existing bikeways on various streets citywide, as identified in the Bike Master Plan. Typical enhancements include closing gaps in bike lanes, upgrading existing bike lanes to buffered bike lanes, adding green pavement markings to highlight areas of conflict between bikes and vehicles, and installing vertical posts to create separated bike lanes. The city also implements new and enhanced bikeways as part of street resurfacing work, per its Complete Streets policy. The city has completed construction of 10 miles of new "separated" bike lanes on major corridors including Fremont Boulevard, Stevenson Boulevard, Walnut Avenue, Driscoll Road, Grimmer Boulevard, Paseo Padre Parkway, and Scott Creek Road. The Walnut Avenue Bikeway Improvement project has received recognition as one of the best bikeway facilities in the Bay Area.























Land Use and Community Design Activities

Silver

1. The City of Fremont is currently building a pedestrian and bicycle bridge to cross over the existing Union Pacific railroad tracks and connect the new Warm Springs BART station to a new public plaza west of the station. The project began construction in July 2018 and is anticipated to be completed in 2021. The bridge will offer access for the residents in the New Warm Springs/South Fremont communities and employees from nearby businesses such as Tesla and Thermo Fisher. The Plaza will provide a gathering space for the community, seating, bicycle lockers, solar charging stations, an informational kiosk, and public art. The city, BART, and Union Pacific Railroad are all coordinating on the project.

- 2. In order to better support Fremont's existing EV ownership levels as well as promote further EV adoption, in 2017 the City of Fremont adopted an EV reach code that goes significantly beyond the state's CALGreen mandatory measures to require that multifamily residential projects of 3 units or more and all non-residential projects must provide EV readiness for approximately 10 percent of the total number of new parking spaces, including installation of the charging units. Since the implementation of this code, the number of EV charging stations at commercial, retail, and public-facing facilities in Fremont has increased from 103 Level 2 chargers and 33 DC Fast chargers at the beginning of 2017 to 250 Level 2 chargers and 55 DC Fast chargers by mid-2021. In addition, one of the largest installations of EV charging stations ever to occur at a speculative project in the Bay Area will be taking place at Pacific Commons South in Fremont, where more than 275 Level 2 chargers are being installed across 10 buildings that encompassing 1.7 million square feet of advanced manufacturing and warehouse space.
- 3. The City of Fremont is in the process of building an entire downtown from the ground up. Downtown Fremont is a 110-acre area envisioned to serve as a central gathering point for the entire Fremont community and beyond and a place for residents to live, work, and play. The Downtown Community Plan published in 2018 provides the framework and vision for the Downtown District. Downtown Fremont benefits from its close proximity to the Fremont BART station, as well as being straddled by the Fremont Hub, Gateway Plaza, and Fremont Plaza shopping centers. The city has already made a substantial investment in creating a walkable urban street grid with pedestrian linkages to the nearby BART station. With 15,000 residents and 50,000 employees within a one-mile radius, many of the elements of a complete downtown community are already in place. Fremont's Downtown District is poised to become a vibrant urban mixed-use district.























Land Use and Community Design Activities

- 4. On June 11, 2013, the Fremont city council adopted a Complete Streets Policy to incorporate complete streets infrastructure into existing streets to provide safe, comfortable, and convenient travel along and across streets through a comprehensive, integrated transportation network that serves all categories of users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, emergency responders, users and operators of public transportation, seniors, children, and families. Currently, two major complete streets projects are underway along Decoto Road and Centerville Avenue:
 - a) The Decoto Road Complete Streets Project will improve Decoto Road from just east of I-880 to Paseo Padre Parkway. The project will implement transit priority treatments to provide travel alternatives and ease congestion in the Dumbarton Corridor and will provide complete street upgrades to improve safety and access for bicyclists and pedestrians. Improvements to the Decoto Road Corridor and the I-880/Decoto Road interchange were among the top priorities identified in Fremont's Mobility Action Plan, a community-developed 5-year plan for local action and regional advocacy launched by Fremont's mayor and city council in response to community concerns about traffic throughout Fremont. The project is environmentally cleared and is currently in the final design. Subject to funding availability, project construction is proposed to start in Summer 2022 and be complete by end of 2023.
 - b) The City of Fremont is implementing a pilot project of the Draft Preferred Design for the Centerville Complete Streets project. The purpose of the pilot project is to test the lane reduction through striping (paint and plastic only) from Thornton Avenue to Parish Avenue and add on-street parking with some spaces dedicated to pop-up patios. As part of the pilot project, the city is working with Centerville businesses to install quick-build pop-up patios at two key locations. These pop-up patios will provide public space for outdoor seating and/or dining in place of on-street parking spaces. The final design for this effort is scheduled for Fall 2021. It is funded through a grant administered by the Alameda County Transportation Commission (Alameda CTC), utilizing federal and local funding.
- 5. The Irvington BART Station Area Plan was prepared to provide a framework for achieving the City of Fremont's longstanding vision of a transit-oriented, active area strategically integrated with the future Irvington BART Station, consistent with the city's 2011 General Plan and Irvington Community Plan goals. The primary purpose of the Station Area Plan is to ensure successful integration and connectivity between the Irvington BART Station, new development, and existing neighborhoods. The Irvington BART Station Area Plan addresses transportation, circulation, urban design, and public infrastructure near the Irvington station site and creates a framework for future development and improvements near the station. The Station Area Plan was designed to be consistent with the existing land use designations established in the City of Fremont General Plan and includes development standards and design guidelines that will enhance the Plan Area. The Fremont city council adopted the Irvington BART Station Area Plan on July 16, 2019.























Land Use and Community Design Activities

Platinum

6. Fremont is actively participating in Plan Bay Area 2050, a joint initiative between the Association of Bay Area Governments and the Metropolitan Transportation Commission. Plan Bay Area is a regional plan required to be prepared every four years that links long-range transportation and land use planning. The strategies in the plan provide a "blueprint" for how the region can accommodate forecasted growth while also achieving the region's greenhouse gas reduction targets and are organized around housing, the environment, transportation, and economics. The plan pinpoints the policies and investments necessary to create a more affordable, connected, diverse, healthy, and vibrant Bay Area. The plan helps influence public policy at state, regional and local levels, and steer investments towards growth geographies.























Open Space and Offsetting **Carbon Emission Activities**

Silver

1. Fremont residents have passed two measures preserving open space in the hillside area, the Hillside Initiative of 1981 (Measure A) and the Hill Area Initiative of 2002 (Measure T). It is the overall intent of the open space district to permit limited but reasonable use of open lands while protecting the public health, safety, and welfare from the dangers of seismic hazards and unstable soils; preserve the topography of the city that shapes it and gives it its identity; allow land to be used for agricultural production in its natural or as near natural state as possible; coordinate with and carry out regional, county, and city open space plans; and where permitted, encourage the clustering of dwelling units in order to preserve and enhance the remainder of open space lands as a limited and valuable resource.

- 2. In 2020, Fremont was recognized as a Tree City USA Community by the Arbor Day Foundation for the 24th consecutive year. As a Tree City USA, Fremont is committed to meeting four core standards of sound urban forestry management: maintaining a tree board or department, having a community tree ordinance, spending at least \$2 per capita on urban forestry, and celebrating Arbor Day. Fremont continues to preserve community trees through effective tree management programs, including its Tree Permit program. The City of Fremont values the existence of a healthy urban forest and protects the livelihood of this ecosystem through specific Tree Policy Guidelines and an extensive Tree Preservation Ordinance. As part of this effort, the city maintains a booklet of all landmark trees in Fremont. Finally, the City requires residents to obtain a permit before most street tree removals through its Tree Preservation Ordinance. This permitting process ensures that trees are not removed unless they pose a significant hazard, are diseased, are causing damage, or exist in an overcrowded area. In 2015, the Fremont city council authorized \$100,000 for the 50-50 Street Tree Program to partner with Fremont property owners to help pay for some of the costs of street tree pruning, removal, and replacement. The program covers 50% of the cost of street tree pruning, removal, and replacement up to a maximum contribution of \$750 per tree and up to two trees per property.
- 3. In September 2020, Fremont completed a citywide tree inventory and canopy assessment of Fremont's approximately 80,000 public and street trees. Based on its findings, the city is now focused on establishing an Urban Forest Management Plan to identify a long-term solution to enhance the Fremont urban forest with meaningful and achievable goals. The purpose of completing the plan is to create a thriving urban forest; make recommendations on planning, policy, and procedures to achieve targeted Urban Forestry goals, reduction of GHG emissions, management methods, and stakeholder opinions; and to increase community outreach opportunities to engage with residents. The plan will analyze a 40-year horizon that guides the city to manage the urban forest proactively and effectively, and provide for maximum, long-term benefits to the community.























Open Space and Offsetting Carbon Emission Activities

- 4. Fremont is currently undergoing an update to the Parks Master Plan to learn about Fremont's growing population and what they would like to see offered by Parks and Recreation Services. The goal of the plan is to provide clear guidance on how to meet the demands for future recreational, programming, environmental, and maintenance needs, as well as to establish priorities for facility improvements, future park development, and land acquisitions for the next 15 years. The city is currently constructing a new 4-acre neighborhood park, and the plan targets the development of additional parks within the city so that any resident is within a 10 minute walk to a park from their place of residence (currently, 72,831 Fremont residents don't have a park within a 10 minute walk of home. The City of Fremont's Recreation Division has ongoing efforts to provide accessible programming in its parks systems and encourage the use of parks. During the COVID-19 pandemic, the Parks Division shared communications with the community about the importance of spending time outdoors for personal and community health. During Summer 2021, the city's Recreation Division is partnering with Washington Hospital, East Bay Regional Park District, Regional Parks Foundation on a wellness campaign, Active Fremont: Walk, Bike, Hike. The campaign includes weekly health tips; recipes; walking, bicycling, and hiking routes in Fremont; and meet-up events, and giveaways.
- 5. In 2013, the Resource Agency California River Parkway Program awarded a \$1.2 million grant to the City of Fremont for creek restoration and other improvements to Sabercat Creek. The project provides critical creek and habitat restoration, reduces erosion, greatly improves public access, provides safety vehicle and ADA access, and repairs existing trails along Sabercat Creek. Specific project elements include a 1,250-foot reach of trail under Paseo Padre Parkway that will connect existing east and west trails, new emergency vehicle and ADA access west of Paseo Padre Parkway, installation of up to four rock weirs to prevent further erosion in the creek, biotechnical bank stabilization where erosion threatens the existing trail, riparian enhancement including native planting and removal of exotics, and alternative water source and fencing for cattle. On the first Saturday of every month, the City of Fremont's Environmental Services Division leads a team of volunteers to engage in habitat restoration work at Sabercat Creek.
- 6. In 2008, Local Ecology & Agriculture Fremont (LEAF) began as a non-profit organization in Fremont to take positive climate action by educating the community to live sustainably, grow healthy food, and reduce waste. Their mission is achieved through food gardens and education programs offered online and onsite. The City of Fremont has collaborated closely with LEAF to offer community workshops and volunteer events on topics such as home gardening, composting and sheet mulching, food waste reduction, and materials reuse. The city has also partnered with LEAF over the past handful of years to sponsor LEAF's annual Earth Day event, which is typically held the day after the city's own Earth Day event and provides the community with greater opportunities for engagement. Finally, the city is working with LEAF to review and possibly update its zoning policies around urban agriculture to provide for more flexible use of land for sustainable agriculture and community gardening activities.























Promoting Community and Individual Action Activities

Silver

1. The Fremont Green Challenge (www.FremontGreenChallenge.org) is an online platform that engages local residents in reducing their climate impacts through individual and collective action and friendly competition. Launched in 2016, the Fremont Green Challenge supports 77 residential actions related to energy efficiency, transportation, water, home energy systems, and food and waste, sortable according to the level of ease, carbon impact, and renter-friendliness. Each action details technologies, tips, and local resources to help households lower their impact in an easy, fun, and cost-effective way. Registered users that complete baseline household profiles and link energy consumption through a utility interface can view custom savings and impact estimates for each action. Specific water-related actions include home conservation (take shorter showers, turn off the faucet, fill the dishwasher, wash clothes wisely), appliance upgrades (efficient dishwasher, clothes washer, water heater, flow toilet, etc.), water reuse (install a greywater system, use rain barrels), and waterefficient landscaping (install drip irrigation, install weather-based irrigation controls, plant trees). To date, a total of 1,684 homes have actively participated in the Fremont Green Challenge, completing more than 2,141 actions and saving 751 tons of CO2, 198,000 kWh of electricity, 13,000 therms of gas, and 1.6 million gallons of water.

- 2. The city's Environmental Sustainability Commission was formed out of the first Climate Action Plan and has been meeting since July 2013. The commission acts in an advisory capacity to the city council and advises the city council on emerging policy issues related to environmental sustainability, implementation of the Climate Action Plan, policy for waste diversion. Additionally, the commission assists the city with marketing, public education, outreach, and promotion activities in order to stimulate the greatest possible participation in sustainability efforts and provide a forum to receive public comment on environmental sustainability.
- 3. Fremont is fortunate to have excellent local and regional partners with which to share information and best practices on sustainability and climate change. StopWaste, an Alameda County agency, provides local government policy and technical assistance and helps with policy and regulatory support as well as implementation assistance for building, landscape, and infrastructure projects that reduce waster energy and pollution. Additionally, they are partners for speaking engagements and other events with the public. The city works closely with East Bay Community Energy, the local electricity Community Choice Aggregator, to share information about their cleaner electricity options with residents, along with their extensive local programs. Fremont staff are active participants in Green Cities California and the Urban Sustainability Directors Network, which allows staff to update other jurisdictions on its own efforts and learn about programs and approaches from others. It also allows staff to better coordinate with other local municipalities on national and regional efforts.























Promoting Community and Individual Action Activities

- 4. The development of the Climate Action Plan grew out of the work of the Green Task Force (GTF), a citizen group appointed by the city council in 2008. The GTF submitted recommendations to city council and hosted public Climate Action workshops, which ultimately led to the city council adopting the goal of reducing greenhouse gas emissions 25% below 2005 levels by 2020. This goal was established during the time of the General Plan update, which included robust community engagement over a five-year period. Through this public engagement, sustainability was identified as a central theme, with each element of the plan identifying measures that met sustainability objectives. Fremont's award-winning General Plan, adopted in December 2011, opens with a "Sustainability" chapter establishing a vision for Fremont to transition from an auto-oriented suburb into a sustainable, strategically urban, and modern city. A separate Climate Action Plan was developed concurrent to the General Plan and adopted in November 2012, providing a roadmap for climate action implementation. An update to the CAP is currently underway, with an expected completion date of late 2021/ early 2022. The updated CAP will propose actions that align with a 2045 carbon neutrality goal and an interim 2030 GHG reduction goal of 55% by 2030 from the 2005 baseline. Significant community engagement has taken place in 2021, which has included launching a virtual public forum, a CAP kick-off and Climate Talks public workshops, and a series of stakeholder conversations. The Consider. It virtual public forum provided an opportunity for community members to comment on suggested measures, propose new ideas, and respond to feedback received by other participants. A total of 21 stakeholder groups have thus far been engaged, 515 people have attended workshops and stakeholder conversations, and 146 people responded on the virtual forum offering a total of 461 comments.
- 5. The city's sustainability staff use Facebook, Twitter, Instagram, and Nextdoor for marketing and outreach. Additionally, the city produces a monthly email newsletter, the Fremont Green Challenge Newsletter, and maintains an email list of over 4,000 residents interested in sustainability through which important updates are shared. Past editions of the Fremont Green Challenge Newsletter are viewable at www.fremont.gov/ FGCnewsletterarchive.
- 6. City of Fremont sustainability staff host outreach events with the public regularly. For example, in September 2020, staff hosted a Kick-off Community Workshop for the Climate Action Plan (CAP) update with over 160 attendees. The interactive, virtual community workshop provided community members the opportunity to learn about the City of Fremont's CAP update and share their vision for a sustainable community. The presentation included an overview of what has been accomplished since the first CAP was adopted in 2012 and gave residents a chance to provide input on how Fremont can continue to address climate change and ensure a vibrant future. Breakout sessions offered participants the opportunity to share their individual ideas on future sustainability efforts, priority action areas, and other relevant environmental concerns.























Promoting Good Government at the Local Level

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