

Rancho Cordova

Climate Action Plan (CAP)



Draft Measures to
Reduce Greenhouse Gas Emissions

November 16, 2022

How to Read this Document

This document describes a set of draft strategies and measures the City is considering for its Climate Action Plan to reduce the amount of climate change-causing greenhouse gas (GHG) emissions that are generated in Rancho Cordova. Specifically, as shown in **Figure 1** below, this set of strategies and measures would help the City achieve its proposed GHG emissions target for 2030 (reducing emissions to 36% below 2019 levels by 2030).

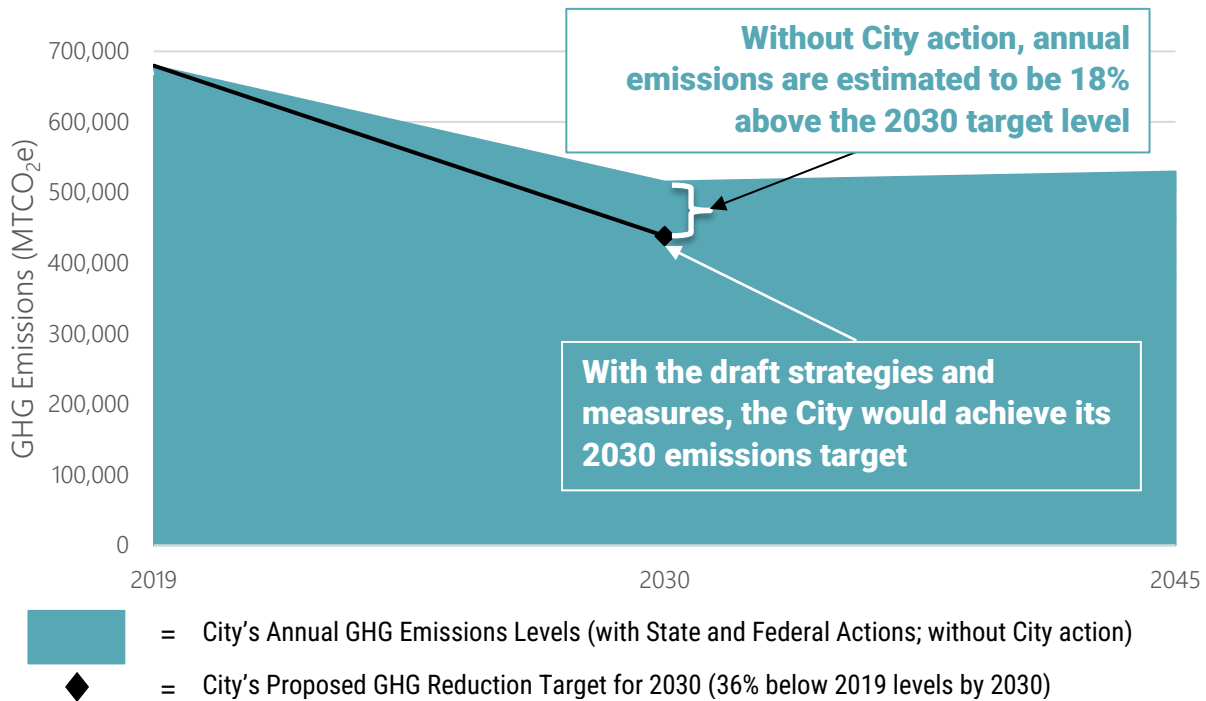


Figure 1. 2030 Rancho Cordova GHG Emissions, With and Without the Draft Strategies and Measures

The strategies and measures address the following major climate change-related activities that can be influenced by the City's actions.

- *Getting To, From, and Around the City (On-road Transportation Sector)*
- *Using Energy in Homes and Businesses (Building Energy Sector)*
- *Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)*
- *Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)*
- *Planting and Managing Trees (Carbon Sequestration Sector)*

In addition to descriptions of the proposed strategies and measures the City is considering, this document also provides information on the estimated outcomes that implementation of the measures could be expected to achieve, including the amount of GHG emissions that would be reduced, and how activities would be affected. Definitions of key terms used in this report are provided on the following page.

Definitions of Key Terms Used in this Handout

- **Strategy:** City’s overall approach for reducing GHG emissions from an activity or in a sector.
- **Proposed Measures:** Specific actions the City could take to implement a strategy; one or more measures are identified for each strategy.
- **Estimated Outcomes:** City-prepared estimates of how implementation of the proposed measures is anticipated to effect GHG emissions levels and the performance of certain activities.
- **Annual Emissions Reduced (2030):** Estimated decrease per year from the associated measures by 2030. Emissions are measured in units of metric tons of carbon dioxide equivalent (MTCO_{2e}) per year.
- **Percent of the City’s Total 2030 Reductions:** Percentage of City’s total 2030 annual emissions reduction from the associated measures.
- **2030 Performance Target:** Change in activity that proposed measures have the potential to achieve.

The contributions of each set of strategies and measures to the City’s total 2030 GHG emissions reductions are summarized in **Figure 2** below. More details on each set of strategies and measures are provided in the remainder of this handout.

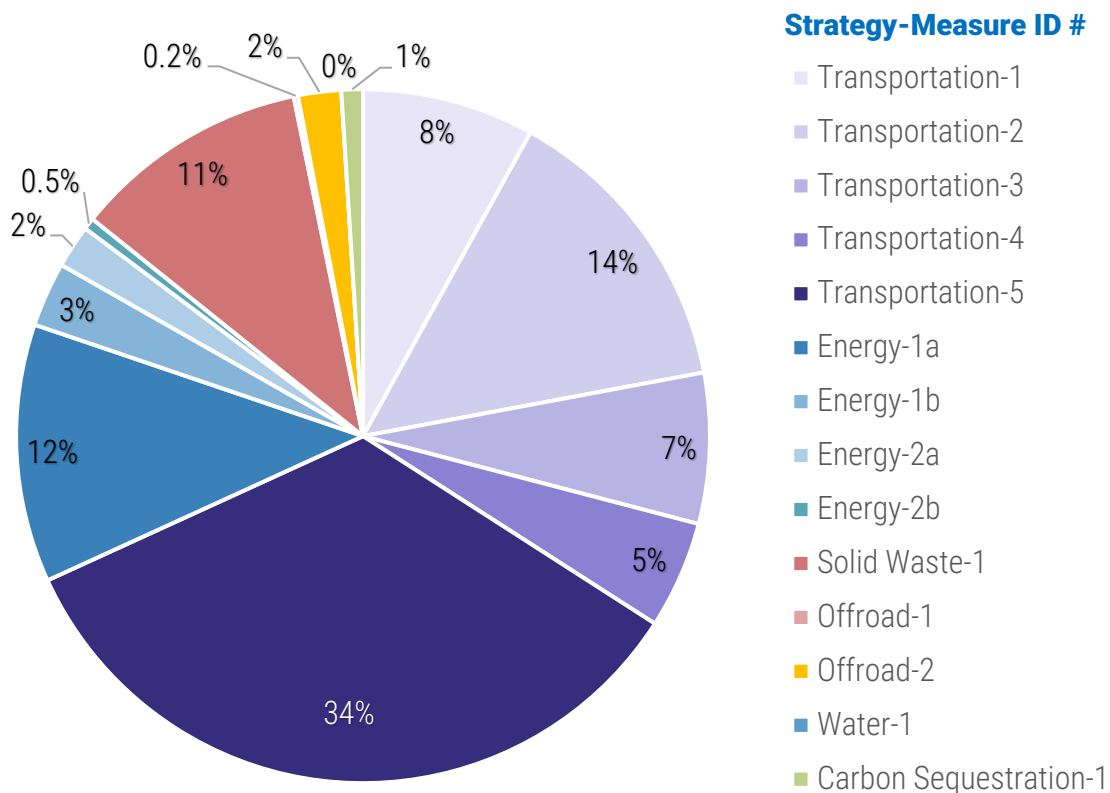


Figure 2. Contributions of Draft Strategies and Measures to Total GHG Reductions in 2030

Instructions for Feedback Activity

The City wants your feedback on draft strategies and measures to reduce GHG emissions. Your feedback will be considered by the City as it prepares the Climate Action Plan. **Tell us what you think!**

1. Use the QR code to join the feedback activity or visit: bit.ly/3UBfU4d
2. Share your feedback on draft measures for all major activity sectors. This handout serves as a reference for you while completing the feedback activity.



Getting To, From, and Around the City (On-road Transportation Sector)

Strategy Transportation-1. Support development of walkable, interconnected neighborhoods, villages, and districts

Proposed Measures

- **Transportation-1.1:** Enforce the City's Transportation Impact Guidelines, which require developers to include features in their projects that decrease the amount of driving alone and encourage people to make trips by walking, biking, or using public transit
- **Transportation-1.2:** Reduce or eliminate requirements to provide a minimum number of off-street parking spaces in new development projects
- **Transportation-1.3:** Improve street connectivity, for example by providing walkways at the ends of existing cul-de-sacs, or requiring walkable street systems in new developments
- **Transportation-1.4:** Limit the number of drive-through businesses

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 6,700 MTCO_{2e}
- **Percent of the City's Total 2030 Reductions** = 8%
- **2030 Performance Target** = Total miles driven in a year from new development would decrease by 10% in 2030 (relative to 2030 scenario without the proposed measures)

Strategy Transportation-2. Make walking and biking safe and attractive for people of all ages and abilities

Proposed Measures

- **Transportation-2.1:** Implement the City's Bicycle Master Plan to increase the number and quality of walkways and bikeways
- **Transportation-2.2:** Install roundabouts to control traffic at intersections, instead of stop signs or traffic signals
- **Transportation-2.3:** Provide temporary or permanent car-free zones or "slow streets" in specified areas, for example, individual blocks or residential streets
- **Transportation-2.4:** Install measures to reduce vehicle speeds and calm traffic on city streets

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 11,500 MTCO_{2e}
- **Percent of the City's Total 2030 Reductions** = 14%
- **2030 Performance Target** = Total miles driven in a year from existing (2019) development would decrease 6% in 2030

Strategy Transportation-3. Provide transit options that are accessible, reliable, and convenient

Proposed Measures

- **Transportation-3.1:** Increase the frequency of SacRT bus, CordoVan service, and/or light rail service, or extend service to cover new areas or times of day
- **Transportation-3.2:** Implement Transit-Supportive Roadway Treatments (for example, transit signal priority, bus-only signal phases, queue jumps, curb extensions to speed passenger loading, and dedicated bus lanes)
- **Transportation-3.3:** Provide discounted or fare-free transit service (could be universal or targeted to specific areas and/or populations, for example, youth under 18)
- **Transportation-3.4:** Provide a microtransit electric shuttle program (capacity for 7-15 passengers) that provides on-demand pick up and drop off within defined, small-scale areas

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 5,800 MTCO_{2e}
- **Percent of the City's Total 2030 Reductions** = 7%
- **2030 Performance Target** = Total miles driven in a year from existing (2019) development would decrease by 3% in 2030

Strategy Transportation-4. Reduce drive alone vehicle trips

Proposed Measures

- **Transportation-4.1:** Implement a Commuter Trip Reduction Program (CTR) in which companies provide employees with services, infrastructure, and incentives for not driving alone to work and instead ridesharing, taking transit, biking, walking, or teleworking
- **Transportation-4.2:** Implement an Electric Vehicle Carshare Program in which vehicles are available for users on-demand for short-term rentals
- **Transportation-4.3:** Implement a bikeshare/scooter share program in which conventional or electric powered bikes or scooters are available to users on-demand for short-term rentals
- **Transportation-4.4:** Provide Community-Based Travel Planning (CBTP) to households in the city in which trained travel advisors visit households to provide them with customized information, incentives, and support to encourage use of transportation options other than driving alone

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 3,800 MTCO_{2e}
- **Percent of the City's Total 2030 Reductions** = 5%
- **2030 Performance Target** = Total miles driven in a year from existing (2019) development would decrease by 2% in 2030

Strategy Transportation-5. Transition to electric and zero emission vehicles

Proposed Measures

- **Transportation-5.1:** Install EV chargers in new residential, commercial, and industrial projects
- **Transportation-5.2:** Install publicly accessible EV chargers on existing private property
- **Transportation-5.3:** Install EV chargers on public property
- **Transportation-5.4:** Electrify loading docks and/or require idling-reduction systems
- **Transportation-5.5:** Limit new gasoline/diesel fueling stations

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 27,000 MTCO_{2e}
- **Percent of the City's Total 2030 Reductions** = 34%
- **2030 Performance Targets** = 18% of all vehicle miles traveled would be from electric or other zero emissions vehicles in 2030; 1,500 new public and shared private EV chargers installed by 2030

Using Energy in Homes and Businesses (Building Energy Sector)

Strategy Energy-1a. Increase energy efficiency and electrification in existing residential buildings

Proposed Measures

- **Energy-1.1:** Retrofit existing residential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 9,700 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 12%
- **2030 Performance Targets** = Existing residential natural gas use is 20% lower in 2030; approximately 4,000 existing homes retrofitted by 2030

Strategy Energy-1b. Increase energy efficiency and electrification in existing nonresidential buildings

Proposed Measures

- **Energy-1.2:** Retrofit existing nonresidential buildings to improve energy efficiency and reduce natural gas consumption for end uses like space and water heating, clothes drying, cooking.

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 2,100 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 3%
- **2030 Performance Targets** = Existing nonresidential natural gas use is 13% lower in 2030; 13% of existing nonresidential building area retrofitted by 2030

Strategy Energy-2a. Increase energy efficiency and electrification in new residential buildings

Proposed Measures

- **Energy-2.1:** Require new residential development to be all-electric, zero net energy (ZNE) buildings (where the amount of energy used in a year equals the amount of energy generated on the site)

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 1,400 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 2%
- **2030 Performance Target** = Beginning in 2026, all new housing is all-electric

Using Energy in Homes and Business (Building Energy Sector)

Strategy Energy-2b. Increase energy efficiency and electrification in new nonresidential buildings

Proposed Measures

- **Energy-2.2:** Require new nonresidential development to achieve energy efficiency above minimum State building code requirements (CAL Green Tier 2)

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 430 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 0.5%
- **2030 Performance Target** = Beginning in 2026, all new nonresidential development is 30% more energy efficient than the minimum efficiency required by the State building code

Using Equipment for Landscaping and Construction (Off-Road Vehicle and Equipment Sector)

Strategy Offroad-1. Transition to electric and zero emissions technologies for landscaping equipment

Proposed Measures

- **Offroad-1.1:** Replace existing gasoline and diesel-powered landscaping equipment with electric or zero emission alternatives
- **Offroad-1.2:** Convert new landscaping equipment to electric or zero-emission alternatives

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 130 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = < 1%
- **2030 Performance Targets** = 60% of existing landscaping equipment is converted to electric, renewable diesel, or other zero-emission alternatives by 2030; 100% of new landscaping equipment sales are electric, renewable diesel, or other zero-emission alternatives starting in 2024 (consistent with Statewide regulation)

Strategy Offroad-2. Transition to electric and zero emissions technologies for construction equipment

Proposed Measures

- **Offroad-2.1:** Increase electrification and use of alternative fuels in construction projects
- **Offroad-2.2:** Reduce construction vehicle idling

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 1,700 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 2%
- **2030 Performance Targets** = 20% of construction equipment is electric, renewable diesel, or other zero-emission alternatives by 2030; 10% of generators are electric, renewable diesel, or other zero-emission alternatives by 2030

Using Water and Disposing of Waste at Homes and Businesses (Water and Solid Waste Sectors)

Strategy Water-1. Conserve water

Proposed Measures

- **Water-1.1:** Reduce indoor water use in existing and new buildings
- **Water-1.2:** Reduce outdoor water use for landscaping and irrigation in existing and new developments

Estimated Outcomes

- **Annual Emissions Reduced (2030) = 0 MTCO₂e***
- **Percent of the City's Total 2030 Reductions = 0%**
- **2030 Performance Targets =** Existing building water use: indoor 25% lower, outdoor 40% lower; new building water use: indoor 40% lower; outdoor 50% lower

**Emissions reduced from water measures estimated to be zero in 2030 because water-related energy needs assumed to be met by 100% renewable or zero emission electricity*

Strategy Solid Waste-1. Avoid disposal of organic waste in landfills

Proposed Measures

- **Solid Waste-1.1:** Increase recovery of edible food waste
- **Solid Waste-1.2:** Eliminate disposal of organic waste in landfills (food waste, yard waste)

Estimated Outcomes

- **Annual Emissions Reduced (2030) = 8,800 MTCO₂e**
- **Percent of the City's Total 2030 Reductions = 11%**
- **2030 Performance Target =** Amount of landfilled waste is 30% lower in 2030 (relative to 2019)

Planting and Managing Trees (Carbon Sequestration Sector)

Strategy Carbon Sequestration-1. Remove emissions from the atmosphere

Proposed Measures

- **Carbon Storage-1.1:** Increase the number of trees in the city, through new plantings and management of existing trees

Estimated Outcomes

- **Annual Emissions Reduced (2030)** = 440 MTCO₂e
- **Percent of the City's Total 2030 Reductions** = 1%
- **2030 Performance Targets** = 750 new residential and 750 new City-managed trees planted per year for a total of 16,500 new trees by 2030