



**DATE:** April 24, 2018

**CATEGORY:** New Business

**DEPT.:** Community Development

**TITLE:** **Adopt 2015 Local Government Operations Greenhouse Gas Emissions Inventory**

### **RECOMMENDATION**

Approve the Council Environmental Sustainability Committee's recommendations to adopt the 2015 Local Government Operations greenhouse gas emissions inventory.

### **BACKGROUND**

The Council Environmental Sustainability Committee (CESC) met on March 15, 2018 to review the 2015 Local Government Operations (LGO) greenhouse gas (GHG) emissions inventory, as detailed in the CESC memo (Attachment 1). Draft minutes for this meeting, including relevant motions, are shown in Attachment 2.

### **ANALYSIS**

Local Government Operations GHG emissions decreased by 33.9 percent between 2005 and 2015, from 17,783 metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>) to 11,753 MT CO<sub>2e</sub>. A large percentage of these reductions (85.6 percent) was due to a reduction in landfill gas produced by the City's closed landfill. With the exception of the vehicle fleet, for which emissions increased by 1.3 percent, emissions from all sources, including solid waste landfill, buildings and facilities, employee commute, public lighting, water transportation, wastewater treatment, and government-generated solid waste, decreased between 2005 and 2015.

These emissions reductions are well ahead of the City's reduction targets. As outlined in the Municipal Operations Climate Action Plan (MOCAP), the City's goal was 20 percent below 2005 emissions levels by 2015, to 14,226 MT CO<sub>2e</sub>. The 2015 level of LGO emissions puts the City well ahead of its 2015 target (17.4 percent below) and 2020 target (11.9 percent below) and only 16 MT CO<sub>2e</sub> (less than 1 percent) greater than its 2025 target.

## Opportunities for Future Emissions Reductions

As of April 2017, the City began purchasing 100 percent renewable and carbon-free electricity for 100 percent of the electricity it uses from Silicon Valley Clean Energy (SVCE). The emissions reductions associated with this will be reflected in future inventories, reducing to zero the City's greenhouse gas emissions from electricity, which comprised 17 percent of total greenhouse gas emissions from government operations in 2015. Anticipated reductions in landfill gas will also help the City achieve its near-term emissions reduction targets.

While the City has already exceeded its 2020 government operations emissions reduction target, much work will be required to reach its 2050 reduction target of 80% below 2005 levels. Emissions from the landfill will continue to decrease on their own, so staff efforts should focus on reducing emissions from buildings and facilities, employee commuting, and the City's fleet of vehicles. Various facility and fleet upgrades are planned in the next few years, and while the City already has a commute benefit program that includes a mass transit stipend and pretax employee contributions for transit costs and other program elements, staff is continuing to assess additional programs to encourage alternative commute methods. These future actions will be evaluated as part of developing Environmental Sustainability Action Plan 4 (ESAP-4), which will cover Fiscal Years 2019-22.

## CESC Comments

- The energy-water connection is important to understand. It takes energy to pump and treat water, and it takes water to create energy, so saving one saves the other.
- We are working on advanced treatment at the Palo Alto wastewater treatment plant, which will produce very high-quality recycled water than can be blended with existing supply, resulting in a need to import less water from the Sierras.
- The money we have saved due to operational sustainability projects is a point of pride, and we should make the community aware of it. People care about government being penny-wise.

## Public Comments

- The City should model what should be done; it should take bold action to transition our buildings to become all-electric (e.g., eliminating the use of natural gas and other fossil fuels) and to set a goal to eliminate fossil fuel fleet vehicles by 2030.

- Need to have the City fleet model the use of all-electric vehicles.
- There was a very significant increase in natural gas and electricity use in the Civic Center from 2010 to 2015, so Facilities staff should review the data and fix any problems.
- Even though we use 100 percent renewable energy in City operations through Silicon Valley Clean Energy, focusing on energy efficiency is still crucial because it reduces our demand for energy before we do fuel switching, and the resulting cost savings can be used in other areas.
- The City should look at more efficient ways to heat its buildings and water, specifically using heat pump technology.
- The City's garbage trucks should be electrified, since they drive a lot of miles and are very visible.

### **FISCAL IMPACT**

The cost of conducting the 2015 local government operations greenhouse gas emissions inventory was approximately \$20,000, not including staff time. This included additional expenses associated with adjusting the 2005 and 2010 inventories based on updated information. Any future programs or actions will be brought to the City Council for funding.

**ALTERNATIVES**

1. Do not adopt the 2015 Local Government Operations greenhouse gas emissions inventory and direct the CESC to reconsider it.
2. Provide other direction.

**PUBLIC NOTICING**—Agenda posting and e-mails sent to community members interested in environmental sustainability.

Prepared by:

Steve Attinger  
Environmental Sustainability  
Coordinator

Wayne Chen  
Assistant Community  
Development Director

Approved by:

Randal Tsuda  
Community Development Director

Daniel H. Rich  
City Manager

SA-WC/3/CAM  
816-04-24-18CR-E-1

Attachments: 1. March 15, 2018 CESC Memo and Attachments: 2015 Local  
Government Operations Greenhouse Gas Emissions Inventory  
2. March 15, 2018 Draft CESC Minutes