

## **Summary of the Energy Savings Analysis**

The purpose of the Energy Saving Analysis is to provide electricity-related emissions information for the energy component of the Santa Ana Climate Action Plan. This Analysis provides information on the greenhouse gas emissions generated from community and municipal electricity usage. In addition, it looks at the amount of emissions reduced from the energy-saving activities the City has implemented. Since 2008 through 2012, Santa Ana has been able to reduce 15,076 metric tons of carbon dioxide per year from energy measures alone. This illustrates the City's commitment to energy efficiency in the community and municipal operations.

## **2008 Communitywide and Municipal Greenhouse Gas Emissions Inventory and Business-as-Usual forecasts for 2020 and 2035.**

The greenhouse gas emissions inventory for community wide and municipal operations was developed to determine emissions sources and amounts for the 2008 baseline year. The areas that create greenhouse gas emissions include energy, transportation and land use, water and wastewater, and solid waste. The Business-as-Usual (BAU) forecasts determine the amount of emissions for years 2020 and 2035, if no action is taken.

The City of Santa Ana has a long history of reducing greenhouse gas emissions. For the baseline year 2008 it was determined that the emissions level is equivalent to 5.47 metric tons of carbon dioxide per resident. In comparison, the statewide average is 13 metric tons per resident.

Business-as-Usual greenhouse gas emissions forecasts were projected for years 2020 and 2035. The results showed that if no measures or projects were implemented, emissions would increase by 5% in 2020 and by 11% in 2035.

## **Report on Emission Reductions from Existing Measures**

Since 2008 and through 2012, the City of Santa Ana has developed a variety of projects and implemented measures and programs that have reduced emissions. The City completed the Report on Emission Reductions from Existing Measures to determine how these projects and measures will impact greenhouse gas emissions into the future. These measures also include existing state and federal regulations.

The results determine that Santa Ana's greenhouse gas emissions will be at 19% below 2008 baseline by year 2020 and 27% below by 2035. This means that Santa Ana will exceed the statewide recommended city target of 15% reduction by year 2020 for its community through existing measures. Our success demonstrates Santa Ana's ongoing leadership in environmental stewardship.

### Projected Emissions Reductions from all Existing Measures

Year	2020 MTCO <sub>2</sub>	2035 MTCO <sub>2</sub>
BAU Forecast	2,065,263	2,167,750
Existing Measures	1,594,170	1,426,784
% below 2008	19%	27%

Some of the programs and projects implemented at the community level that have resulted in GHG reductions include:

- Southern California Edison energy efficiency programs
- Southern California Gas Company energy efficiency programs
- Recycling and Green Waste Program
- Community Action Partnership Weatherization Program
- Solar power system installations

Additionally, the City found particular success in reducing its municipal emissions from these existing projects:

- Municipal facilities heating and air-conditioning system upgrades
- Municipal facilities lighting upgrades
- Water system motor efficiency upgrades
- Alternative Fuel Vehicle Policy

Santa Ana will continue on this path of reducing both greenhouse gas emissions and the effects of climate change. The next steps are to determine greenhouse gas reduction targets and the best climate action measures to meet those targets. Many of the strategies and measures will reinvest in the community with such benefits as improved air quality, reduced energy and water use, reduced traffic congestion, as well as other environmental improvements.