

REDUCING GREENHOUSE GAS EMISSIONS IN THE DURHAM COMMUNITY

BACKGROUND

Climate change is the most pressing environmental challenge of our time. The scientific community has established that climate change is caused by the unprecedented emission of greenhouse gases by human activity. With that in mind, Durham has expressed and demonstrated a commitment to address the issue.

In 1996, the City of Durham joined the Cities for Climate Change Protection (CCP) as a commitment to achieve reductions in greenhouse gas emissions, improve air quality and enhance urban livability and sustainability. In 2006-2007, Durham City and County staff worked with a community Advisory Committee to develop an inventory of greenhouse gases and an action plan to reduce those emissions. The Greenhouse Gas and Criteria Air Pollutant Emissions Inventory and Local Action Plan for Emission Reduction was adopted by the County Board of Commissioners and the City of Durham in the Fall of 2007. Both governments understood that reducing greenhouse gas emissions would help address climate change, but also result in several other important benefits, including:

- Higher efficiency of government operations
- Improved public health
- Reduced energy costs
- Job creation

Durham City and County jointly fund a Sustainability Manager to guide implementation of the Local Action Plan. The manager continues to update Durham's greenhouse gas inventories and oversee a number of emissions reduction projects within government operations and the community as a whole.

WHAT IS A GREENHOUSE GAS EMISSIONS INVENTORY?

A greenhouse gas emissions inventory involves totaling up the yearly energy use by buildings, water services, vehicles, lights, etc. It includes emissions from electricity, natural gas, gasoline, diesel fuel, propane, and other fuel sources as well as those generated by waste decomposition.

Government emissions (City, County and Public Schools) are counted separately from the community's emissions, which include residential, commercial, and industrial sectors.

PREDICTED FUTURE EMISSIONS IN A BUSINESS AS USUAL (BAU) SCENARIO

If we took no action to curb greenhouse gas emissions:

- Annual emissions from City and County government and Public Schools operations would reach 205,146 tons by 2030 - a 29% increase over 2005 level.
- Annual emissions from community operations would reach 10,237,010 tons by 2030 – a 50% increase over the 2005 level.

SETTING REDUCTION TARGETS

After the initial 2005 baseline was established, Durham set out to create emission reduction targets. This was a collaborative effort between ICLEI, city and county staff, a Community Advisory Committee, and public forum participants. The targets for emissions reductions are:

- Government: 50% reduction from 2006 emissions by 2030.
- Community: 30% reduction from 2006 emissions by 2030. This target includes expected state and federal actions.

HOW CAN WE REACH OUR TARGETS?

These are ambitious goals, but the good news is that there are many ways we can reach these targets! The Local Action Plan outlined several recommended actions for Durham:

- Energy efficiency improvements in City, County, and Public School buildings, as well as in the City and County's water and sewage operations
- Green building policies for all new construction and major renovations
- Offset emissions by purchasing green electricity or green tags
- Promote the use of alternative vehicles, fuels and modes of transportation
- Expand and enforce land use planning strategies to avoid transportation emissions related to urban sprawl
- Expand energy conservation measures in the commercial, industrial, and residential sectors through education and awareness campaigns, partnerships, energy audits, and design standards

Figure 1. Government Greenhouse Gas Emissions, Business as Usual (BAU) Forecast, and Targets

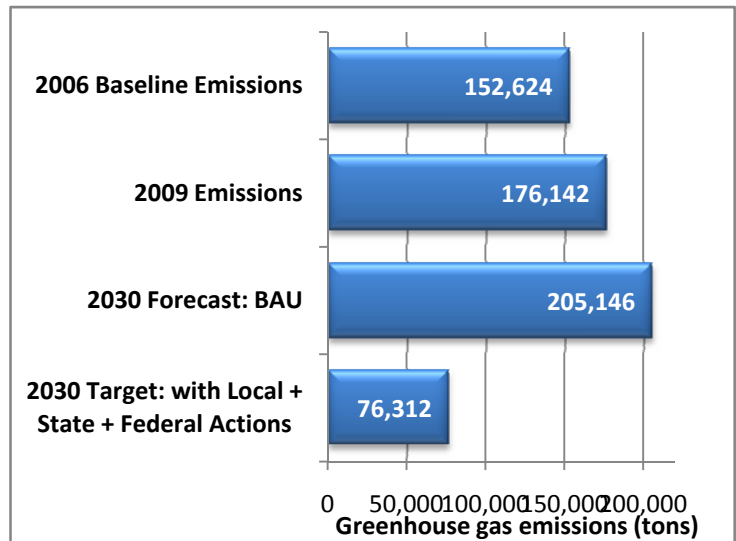
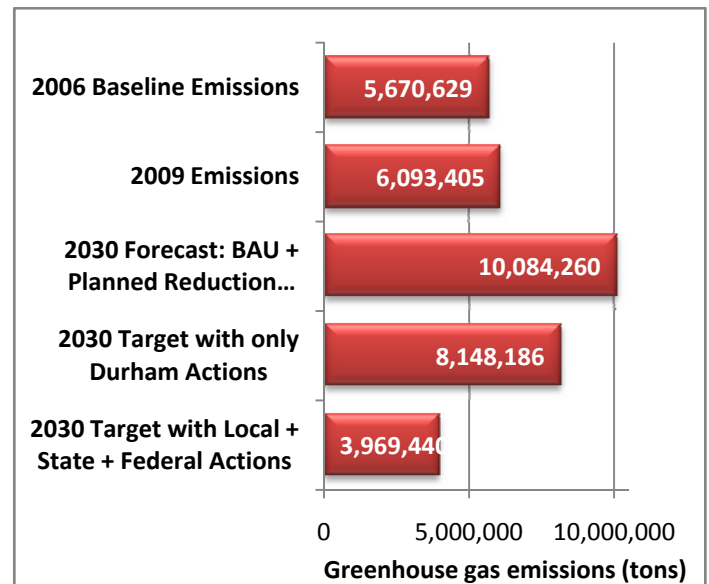


Figure 2. Community Greenhouse Gas Emissions, Business as Usual (BAU) Forecast, and Targets



For more information, contact the
 Durham City-County Sustainability Office
 (919) 560-7999
Sustainability@durhamcountync.gov
www.greenerdurham.net

