



NEW JERSEY ENERGY MASTER PLAN

Greenhouse Gas Fact Sheet

Overwhelming scientific evidence confirms that greenhouse gas emissions from man-made sources are changing the earth's climate in potentially catastrophic and irreversible ways. These emissions lead to an enhanced greenhouse effect in the earth's atmosphere, thus trapping more of the energy from the sun and heating the planet.

Greenhouse Gas Emission Levels in New Jersey

- 1990: 120.3 million metric tons, 2005: 138.3 million metric tons, 2020 (projected): 158.3 million metric tons if no action is taken to reduce emissions
- *Fossil Fuels* - More than 85 percent of New Jersey greenhouse gas emissions are due to combustion of fossil fuels for energy
- *Capping Emissions* - The 2020 emissions cap required by the Global Warming Response Act represents an approximately 25 percent reduction in greenhouse gas emissions relative to projected business-as-usual emissions.

Potential Impacts of Global Warming to New Jersey

- *Coastal Flooding* - Rising sea levels could increase the frequency and severity of damaging storm surges and flooding, harming not only the state's coastal communities, infrastructure, transportation systems, and industry, but also its critical coastal wetlands, habitats and abundant natural resources.
- *Extreme Heat* - The number of very hot days is expected to increase significantly if action is not taken to reduce greenhouse gas emissions. This will be especially problematic in metropolitan counties such as Bergen, Essex, Hudson, Passaic, Burlington, Camden, and Gloucester, where the urban heat-island effect can amplify temperatures.
- *Declining Crop Yields* - Increasing summer temperatures and heat stress are expected to depress the yields of economically important crops adapted to cooler conditions, while rising winter temperatures are expected to drive the continued northward expansion of agricultural pests and weeds. This would further impede crop production and potentially increase herbicide and pesticide use, threatening water quality.

What's Being Done to Address Global Warming in New Jersey

- *Regional Greenhouse Gas Initiative* - Cooperative effort by New Jersey and other Northeastern and Mid-Atlantic states to reduce carbon dioxide emissions. Participating states will be developing a regional strategy for controlling emissions.
- *International Carbon Action Partnership* - Partnership made up of countries, regions and states that are actively pursuing the development of carbon markets through implementation of mandatory cap and trade systems.
- *Global Warming Response Act* - Legislation signed by Governor Corzine that calls for reducing greenhouse gas emissions to 1990 levels by 2020, approximately a 25 percent reduction, followed by a further reduction of emissions to 80 percent below 2006 levels by 2050.
- *Renewable Energy* - Renewable Portfolio Standard have been adopted requiring that utilities meet 6.5 percent of customers' electricity needs from renewable energy sources by May 2009. The requirement increases to 22.5 percent by 2020 - one of the most aggressive requirements in the U.S. Use of renewable energy reduces combustion of fossil fuels and generation of greenhouse gases.
- *Low Emission Vehicles* - New Jersey will implement the California Low Emission Vehicle program in 2009. The NJ program contains three components: vehicle emission standards, fleet-wide emission requirements and a Zero Emission Vehicle sales requirement. The rules will require automakers to reduce fleet-wide greenhouse gas emissions from the vehicles they sell in New Jersey 30 percent by 2016.