

A Brief Summary:

An Examination of Policy Options for Achieving Greenhouse Gas Emissions Reductions in New Jersey

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The 2007 New Jersey Global Warming Response Act puts a statutory limit on the emission of greenhouse gases such as carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. New Jersey has already met its near-term limit of reducing greenhouse gas emissions to 1990 levels by 2020. But under current policies, the state is projected to fall short of the 2050 limit, which requires an 80 percent reduction from 2006 levels, or approximately 75 percent reduction from today's levels.

Meeting the 2050 limit is an essential step that states like New Jersey can make toward the goals of the 2015 Paris Agreement, in which nearly all the countries of the world aim to prevent the worst risks of climate change by limiting global warming to below two degrees Celsius.

New Jersey has already implemented several important climate and energy policies that are driving down greenhouse gas emissions, and it has the opportunity to incorporate thinking from innovative policies being developed by other states.

New Jersey already has considerable authority that it can use to attain the statewide greenhouse gas limits. It may be possible for some new or enhanced policies to build upon the authority of these existing laws such as the Global Warming Response Act, the Global Warming Solutions Fund Act, the Department of Environmental Protection's enabling legislation, the Air Pollution Control Act, and the Electric Discount and Energy Competition Act.

In addition to reducing greenhouse gas emissions, such policies will yield public health and economic benefits, including cleaner air, technological innovation, and job creation, as well as addressing the needs of communities most vulnerable to climate impacts.

Keeping in mind that the power and transportation sectors are New Jersey's two largest sources of greenhouse gas emissions (about 60 percent), this report identifies three main "pathways to decarbonization": (1) transitioning to a low-carbon energy system; (2) sequestering carbon through forests, soils, and carbon dioxide removal technologies; and (3) reducing non-carbon-dioxide emissions such as methane.

Consistent with these decarbonization pathways, the authors examine a wide range of policy options that New Jersey can consider to meet its 2050 emissions limits. Examples of these policy options include:

- Establishing an interim emissions goal and a system for monitoring emissions progress
- Rejoining the Regional Greenhouse Gas Initiative (RGGI)
- Strengthening renewable portfolio standards
- Decoupling utility rates
- Tightening standards and providing incentives to promote energy efficiency and renewable energy sources (e.g., offshore wind)
- Supporting electric vehicles and infrastructure
- Promoting "smart growth"
- Reducing emissions through building efficiency
- Establishing methane leak detection and replacement requirements for natural gas compressor stations and pipelines
- Restoring natural carbon sinks such as forests and wetlands
- Incorporating equity considerations and addressing the needs of vulnerable populations

The report is a collaboration of researchers from the Rutgers Climate Institute, Edward J. Bloustein School of Planning and Public Policy, Georgetown Climate Center, and World Resources Institute.

Download the report at: climatechange.rutgers.edu

