

New Jersey Energy Master Plan

Greenhouse Gas Emissions Fact Sheet

The Global Warming Response Act (GWRA) directed that the EMP include a list of recommended policies and measures to reduce the emission of greenhouse gases (GHG) from the production, processing, distribution, transmission, storage, or use of energy that will contribute to achieving 1990 GHG emission levels by 2020.

All emission and reduction quantities, especially projections to 2020, are estimates and therefore uncertain. Emissions reduction credits associated with exported electricity are especially difficult to predict due to numerous variables. All GHG emission quantities are subject to revision by the DEP as better information becomes available.

What Has Happened and Could Happen to NJ's GHG emissions related to electricity production and imports and heating?

- For the electricity generation and heating sectors, the total GHG emissions were 72.8 million metric tons of CO₂ equivalents (MMTCO₂e) in 1990. In state generation contributed 12.4 MMTCO₂e and imported generation accounted for 14.1 MMTCO₂e. Heating needs accounted for 46.3 MMTCO₂e. Thus, heating was 64% of the total GHG emissions, with the remaining 36% coming from electricity generation.
- By 2004, the GHG emissions from the electricity generation and heating sectors had increased almost 11% to 80.6 MMTCO₂e. Electricity generation accounted for 33.7 MMTCO₂e (20.3 from instate generation and 13.4 from imports) and heating contributed 46.9 MMTCO₂e. The heating sectors portion of the total GHG emissions decreased to 58% while electricity's increased to 42%.
- Under the business as usual scenario, GHG emissions from the electricity generation and heating sectors are projected to increase to 84 MMTCO₂e (a 4% increase from 2004) in 2020. Electricity generation would account for 42.6 MMTCO₂e (31.7 from instate generation and 10.9 from imports) and heating would contribute 41.4 MMTCO₂e. The heating sectors portion of the total GHG emissions is expected to be 49% while electricity's is expected to be 51%.

What Will Our GHG Emissions Be in 2020 Under the Energy Master Plan?

- Through the EMP, GHG emissions from the electricity generation and heating sectors are projected to decrease 33% to 56.1 MMTCO₂e in 2020 compared to business as usual. Electricity generation would account for 20.7 MMTCO₂e (30.8 from instate generation with a credit of 10.1 from exporting electricity to other states) and heating would contribute 35.4 MMTCO₂e. The heating sectors portion of the total GHG emissions is expected to be 63% while electricity's is expected to be 37%.

Achieving the EMP goals in the electricity and heating sectors will not only reduce GHG emissions so the GWRA limit is met, it will exceed that goal by 23% (56.1 MMTCO₂e in 2020 compared to 72.8 MMYCO₂e in 1990).