

Climate Change and the Role of State Government in Reducing Greenhouse Gases

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Link to

[Idaho Greenhouse Gas Inventory and Reference Case Projections 1990-2020](#)

(Center for Climate

Strategies

Publication, Spring 2008:
pdf 716 kb, 97 pages)

[Greenhouse Gas Emissions Reduction Action Plan for Fiscal Year 2008-2009](#)

(DEQ Publication, May 2008: pdf 299 kb, 42 pages)

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On May 16, 2007, Governor Otter issued [Executive Order 2007-05](#), which directed the Department of Environmental Quality to:

- Complete a statewide emissions inventory
- Work with state government to implement greenhouse gas (GHG) reductions within each agency
- Provide recommendations to the Governor
- Serve as a central point for coordinating GHG reduction-related efforts and information for the state

What are greenhouse gases?

Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere both through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

Carbon Dioxide (CO₂)

Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle. About 75% of all greenhouse gases emitted globally are CO₂.

Methane (CH₄)

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide (N₂O)

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

How much GHG do we generate in the U.S. and in Idaho?

The United States is responsible for approximately 25 percent of the world's total emissions. Idaho is one of the states with the lowest emissions of carbon dioxide (47th); however, Idaho's gross greenhouse gas emissions increased approximately 31% from 1990 to 2005, while national emissions rose by only 16% over the same period. Activities in Idaho accounted for approximately 37 million metric tons of gross carbon dioxide equivalent (CO₂e). Idaho's primary sources by sector are transportation, agriculture, residential, commercial and industrial fuel use, and electricity consumption.

Idaho's GHG Emissions Inventory Report

The Center for Climate Strategies (CCS) prepared this report for DEQ through an effort of the Western Regional Air Partnership (WRAP). The report contains an inventory and forecast of the state's greenhouse gas (GHG) emissions from 1990 to 2020 to provide an initial comprehensive understanding of Idaho's current and possible future GHG emissions. The information presented provides the state with a starting point for revising the initial estimates as improvements to data sources and assumptions are identified. The state intends to update and improve upon this report as more data become available.

> Link to [Idaho Greenhouse Gas Inventory and Reference Case Projections 1990-2020](#)
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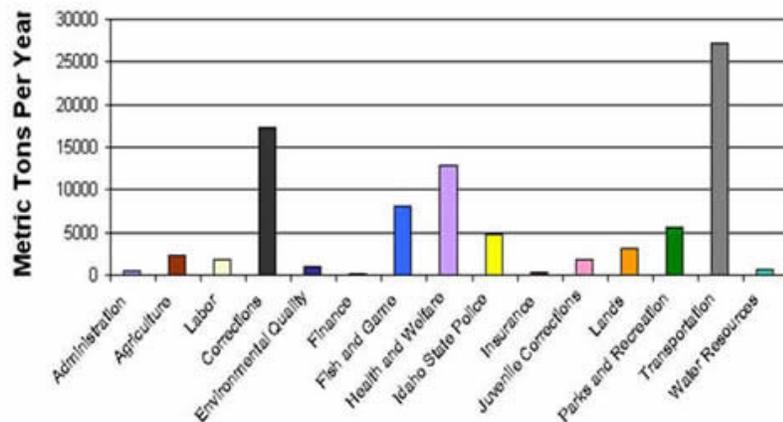
What is Idaho doing to address climate change?

Greenhouse Gas (GHG) Working Group

At DEQ's request, each state department and agency identified a point of contact from its organization to participate in the Greenhouse Gas (GHG) Working Group. GHG Working Group members collaborated on ways to reduce GHG emissions from state government agencies while representatives of each state department and agency focused on opportunities for GHG reductions within specific agencies.

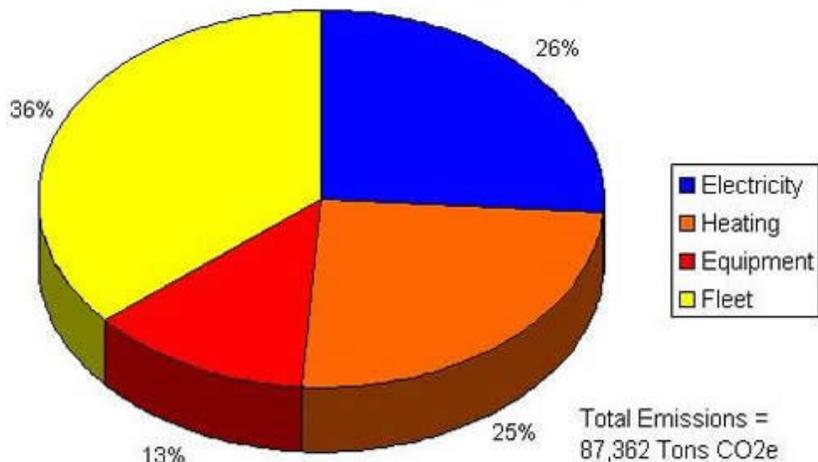
Fifteen state agencies have completed GHG emissions inventories. These agencies emitted an estimated 87,500 metric tons of carbon dioxide equivalent (CO₂e) in fiscal year 2007. Below is a graphical representation of the relative GHG emissions contribution of each agency.

State Agencies' GHG Emissions
(Total = ~87,500 Metric Tons CO₂e)



Below is a graphical representation of the GHG emissions by source for the 15 state agencies.

GHG Emissions by Source
(Cabinet-Level State Agencies)



DEQ has developed a GHG Emissions Reduction Action Plan for Fiscal Year 2008-2009. This document presents DEQ's contribution to the comprehensive effort by Idaho to reduce GHG emissions. The plan identifies changes DEQ can make in policy, management, purchasing, work practices, and other areas that are likely to reduce the agency's GHG emissions.

> Link to [Greenhouse Gas Emissions Reduction Action Plan for Fiscal Year 2008-2009](#) (DEQ Publication, May 2008: pdf 299 kb, 42 pages).

State Vehicle Fuel Use and Emissions

Recognizing that emissions from vehicles are a major source of greenhouse gas gases in Idaho as well as a major source of air pollution in Idaho's urban areas, Governor Otter issued [Executive Order 2007-21](#) on December 21, 2007. The order establishes a policy to reduce fossil fuel use and greenhouse gas emissions from state vehicles.

The policy directs all state agencies to decrease the amount of gasoline and diesel used in state vehicles by increasing vehicle fuel economy, increasing operating efficiency, and reducing the number of miles driven by employees. In addition, it directs state government to minimize purchase or lease of sports utility vehicles and to give priority to the purchase and use of hybrid gas/electric and other fuel efficient/low emission and new petroleum efficient technology vehicles.

Implementation of the policy will be monitored through quarterly reports to the Governor and DEQ.

Carbon Sequestration Advisory Committee

Idaho's Carbon Sequestration Advisory Committee was formed by the Idaho Legislature in 2002 to address growing concerns related to carbon emissions and greenhouse gases. As set forth in [Idaho Code section 22-5202](#), the Idaho Soil Conservation Commission (ISCC) was selected to facilitate committee activities as set forth in Idaho Code section 22-5202.

The committee is currently partnering with several carbon sequestration entities, including the National Carbon Offset Coalition and the Big Sky Regional Partnership, and Idaho's Strategic Energy Alliance, in an effort to develop an effective public outreach program to educate Idaho's private ag and forest landowners and operators on how a carbon credit market operates.

> Link to more information on the [Carbon Sequestration Advisory Committee](#).

The Climate Registry

Idaho has become a member of The Climate Registry, which is a collaboration between states, provinces, and tribes aimed at developing and managing a common greenhouse gas emissions accounting system that is capable of supporting various greenhouse gas emission reporting and reduction policies. As a member of The Climate Registry Idaho will:

- Work to establish and endorse voluntary statewide greenhouse gas emissions reporting and verifications system.
- Work to identify a set of greenhouse gas emission minimum data quantification standards.
- Provide an accurate, complete, consistent, transparent and verified set of greenhouse gas emissions data, supported by a robust accounting and verification infrastructure.

For more information on The Climate Registry, visit www.theclimateregistry.org.

Related Web Sites

For more information on climate change, what you can do at home and at work to help, and what is being done nationally, visit the following web sites.

[U.S. Environmental Protection Agency \(EPA\)](#)

Information on U.S. climate policy, climate change science, greenhouse gas emissions, health and environmental effects, and what you can do at home.

[ENERGY STAR](#)

A government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment.

[Incentives for Energy Efficiency and Renewables](#)

A database of Idaho-specific financial incentives; rules, regulations and policies, and related programs and initiatives for those wishing to invest in either energy efficiency or renewable energy.

[Green Power Network: Buying Green Power in Your State](#)

The U.S. Department of Energy's Green Power Network provides news and information on green power markets and related activities and state-by-state information on green power marketing and utility pricing programs.

[EcoDrivingUSA](#)

Hosted by the Alliance of Automobile Manufacturers, this Web site contains practical tips to help drivers improve their mileage and reduce their carbon footprint. The site includes a video guide to EcoDriving, an "EcoCalculator" to determine benefits for individuals or states, a Virtual Road Test and a variety of educational tools.

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