

Global Warming Reduction Strategy

Adopted, November 1993

Executive Summary

Portland was one of 12 local governments internationally to take the lead on jointly developing local global warming solutions in the early 1990's. The focus of the effort was to slow the build-up of carbon dioxide (CO₂), which is the primary gas contributing to the threat of increased global warming. Portland participated with the 11 other local governments in the Urban CO₂ Reduction Project, coordinated by the International Council for Local Environmental Initiatives.

Along with the other international cities, Portland set a goal to reduce CO₂ emissions 20 percent below 1988 levels. This goal was established by the 12 cities and suggested as a significant target at the World Conference on the Changing Atmosphere held in Toronto, Canada in 1988. This joint effort highlights the key role local governments must take to combat this global problem. The City proposed reducing carbon dioxide emissions 20 percent below the 1988 level by 2010 (This will mean cutting carbon dioxide emissions about 42 percent below the 2010 forecast.).

Concentrations of greenhouse gases in the atmosphere are increasing. Most scientists in the international scientific community agree that increases in greenhouse gases will change the climate. There is considerable uncertainty regarding the amount of warming, its timing, and the regional patterns of change. However, even with the uncertainty, it is prudent to embark on a strategy to reduce greenhouse gas emissions.

There are many benefits from a global warming strategy that go beyond greenhouse gas emission reductions. For example, the actions complement other economic and environmental goals: reducing air pollution; providing cost-effective electric power and natural gas service; increasing reliance on renewable resources; reducing energy bills for businesses and families; expanding recycling; preventing urban sprawl and traffic congestion; and promoting tree planting. All of these benefits promote economic and environmental goals and enhance the city's livability.

Global Warming Strategy

In 1988, CO₂ emissions in the Portland metropolitan area were 10.1 million metric tonnes (MMT). The forecast for 2010 shows CO₂ emissions rising to 13.9 MMT. This increase is due primarily to population growth -- an increase of 500,000 persons expected by 2010. Additional emissions are also expected from the increased use of natural gas for electrical power production and increased vehicle miles traveled. Reducing emissions to 20 percent below the 1988 level requires a reduction in emissions to 8.1 MMT, or about 42 percent below the 2010 forecast.

The total CO₂ reduction goal for 2010 is about 5.8 MMT. In the strategy, CO₂ reductions come from six elements. Each of the elements has objectives with target CO₂ emission reductions and specific actions to achieve each objective. The first five elements rely on the actions of local governments, individuals, utilities, and other businesses to be implemented. While 4.8 MMT of the 5.8 MMT goal can be achieved through these local efforts, local actions alone are not enough to get us to our 20 percent reduction goal. The remaining 1 MMT needed to reach our goal can be achieved through actions at the federal level as outlined in the sixth element.

Element One: Transportation

- Reduce metropolitan area vehicle miles traveled (VMT) per capita by 10 percent below 1995 levels. The State Transportation Planning Rule requires a 10 percent per capita reduction in VMT by 2015. The threat of global warming requires that we do more. This objective calls for meeting the same target as in the State Transportation Planning Rule by 2010, five years earlier than required. Actions include expanding the transit system and completing light rail lines, achieving more compact development, adopting fees to reflect the full cost of driving, making streets bicycle- and pedestrian-friendly, and providing easy access to transit and other alternatives to people driving alone in their vehicles.
- Purchase citywide 15,000 highly efficient vehicles and 15,000 alternative-fueled vehicles that emit low or no carbon dioxide.

- Optimize traffic signal timing on all heavily traveled city streets and major county roads.
- Reduce temporary congestion on area freeways and arterials through better management of accidents and other delays.

Element Two: Energy Efficiency

- Capture significant energy savings and reduce carbon dioxide emissions from electricity, natural gas, and petroleum fuels used by homes, the public sector, businesses, and industry. This objective includes cutting forecast 2010 residential CO₂ emissions by 25 percent, commercial by 20 percent, and industrial by 15 percent.

Element Three: Renewable Resources and Cogeneration

- Increase use of methane from landfills and waste water treatment plants as an energy source.
- Promote the use of renewable energy resources, district heating, and waste heat. The target is 400 average megawatts of renewable resource generation.

Element Four: Recycling

- Increase solid waste recycling rates from 26 percent to 60 percent of the total waste stream.
- Purchase paper products with a minimum 25 percent post-consumer waste content.

Element Five: Tree Planting

- Promote extensive Oregon reforestation efforts by CO₂ producing organizations. The target is 75,000 acres of new trees.
- Promote extensive urban area tree planting and expanded maintenance of existing trees.

Element Six: Federal Actions

- Raise federal car and light truck fuel efficiency standards to 45 and 35 mpg, respectively, by 2010.
- Increase federal gas-guzzler tax and offer gas-sipper rebates.

Conclusion

The proposed global warming strategy is a far-reaching approach for a local government to undertake. Since the effects of global warming will take time to be apparent, it is necessary to educate the general public about the long-term consequences. Community goals such as waste reduction, improved air quality, energy conservation, reduced traffic congestion, and urban livability can help us achieve our CO₂ reduction goal. However, relying only on actions that must be taken for other reasons is not enough. We need to go beyond business-as-usual if we are to take the first step to reduce our CO₂ emissions and reduce the threat of global warming.

Each of the elements described in this strategy requires cooperative action by many partners, if we are to succeed. This means all of the major jurisdictions in the metropolitan area must join with Portland over the next few years to make a commitment to adopt and implement the strategy. All of the elements are regional in nature -- transportation, solid waste management, power generation and tree planting. And, on all of these issues, the cities and counties of the metropolitan region have already initiated partnerships for joint action.