

# The United States Must Take Aggressive Action To Cut Its Greenhouse Gas Emissions To Stabilize Earth's Climate

## The evidence is clear that human-induced climate change is underway.

The emission of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases—primarily by the burning of fossil fuels—has increased the blanket of heat-trapping gases in Earth's atmosphere. Global temperatures have risen approximately 0.8°C (1.4°F) above pre-industrial levels, and this small increase is already causing significant adverse effects. These effects—documented by the world's leading climate scientists and the Intergovernmental Panel on Climate Change (IPCC)—include rising sea levels, intensified storms, higher global temperatures, and severe droughts and floods that are already having adverse impacts on human health, food supplies, and ecosystems, as well as national economies.

## The United States has made a commitment to stabilize the climate.

The United States Senate ratified the United Nations Framework Convention on Climate Change in 1992, joining over 180 nations in a commitment to “stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”

## Prompt action is required to slow the build-up of greenhouse gases.

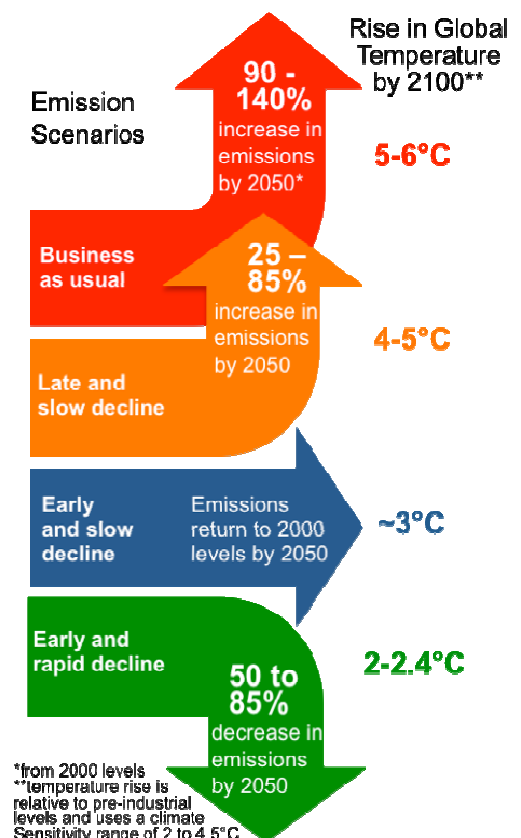
According to the IPCC, global emissions must peak and begin declining *before 2015*. There is strong scientific consensus that warming of more than 2°C (3.6°F) above pre-industrial levels will lead to irreversible damage to our planet. The pre-industrial concentration of CO<sub>2</sub> in the atmosphere, expressed as CO<sub>2</sub>-eq (CO<sub>2</sub> and other greenhouse gases and aerosols), was 280 parts per million (ppm). It was 375 ppm in 2005 and is increasing each year. We must start now to limit CO<sub>2</sub>-eq below 450 ppm, adjusting the target periodically as necessary, to reflect our understanding of the rapidly evolving science of climate change. Eventual stabilization at even lower concentrations of CO<sub>2</sub>-eq may be necessary.

## The United States must adopt an aggressive trajectory for reducing its emissions.

The United States must stop the “Business as Usual” emissions of greenhouse gases and impose aggressive emission reductions starting in 2010. We support adoption by the U.S. of a firm, verifiable cap that reduces emissions at least 25% below 1990 levels by 2020 and 80-95% below 1990 levels by 2050. Even with these aggressive reductions in the U.S., the global decrease in emissions may lag, as shown in the graphic, resulting in dangerous warming. Furthermore, part of the emitted CO<sub>2</sub> remains and accumulates in the atmosphere; thus, the atmospheric concentration will continue to increase until the global rate of removal exceeds the rate of release.

## We have the capacity, responsibility and economic imperative to lead this effort internationally.

The U.S. has met great challenges before—such as World War II and space exploration. Since we are responsible for much of the increase in atmospheric greenhouse gases, we need to accept responsibility for being the leader in solving the global climate challenge. Our efforts will transform our way of life by creating a new clean-energy economy and will allow the U.S. to maintain its technological leadership.



SOURCE: After Met Office diagram using IPCC data from Table SPM.6, AR4 Synthesis Report, Summary for Policymakers, 2007