



Key Points

- *Climate change is real, and federal legislation is needed to address it.*
- *Cap and trade regulatory systems have proven to be cost effective market methods of achieving emission reductions.*
- *Buildings are the indirect sources of over 40% of the carbon dioxide emissions in the United States – principally through their consumption of energy.*
- *Any cap and trade system put into law should include requirements that involve reductions in GHG emission contributions made by buildings.*

Sustainable Design & Greenhouse Gases

AIA Position

The built environment is a major contributor to greenhouse gas emissions (GHGs) generated in the United States. The American Institute of Architects (AIA) believes that the threat of climate change is real and that government at all levels should adopt policies to reduce GHG emissions nationwide. In particular, the AIA advocates the passage of federal legislation that would establish a “cap and trade” system of regulating and reversing the growth of GHG emissions nationally.

Actions Sought

The AIA supports legislation that places a mandatory regulatory “cap” on total GHG emissions – both nationally and with respect to current individual emitters. These caps would be reduced over time to guarantee that future emission levels decline on an aggregate basis. In order to exceed their regulatory caps emitters would be required to purchase allowances from others who had reduced their emissions in excess of the amount required by regulation.

The AIA also seeks to incorporate within a cap and trade system a mechanism to reduce the GHG emissions caused by energy use in buildings.

Explanation and Justification

The cap and trade system mandated by the Clean Air Act Amendments of 1990 has been very successful in reducing the emissions of sulfur and nitrogen compounds generated by utility boilers. Such a system is now in place in the European Union to achieve the GHG emissions reductions mandated by the Kyoto Protocol. In September 2006, the Congressional Budget Office released a report recommending that a cap and trade system be considered as a cost-effective market measure to reduce GHGs.

Buildings in United States, including homes, offices, and industrial sites, account for over 40 percent our nation’s carbon dioxide emissions. Most of these emissions come from the combustion of fossil fuels to provide heating, cooling, and lighting and to run electrical equipment and appliances. When combined with other GHG impacts of buildings — such as emissions from the manufacture of building materials and products, the transport of construction and demolition materials, and the passenger and freight transportation associated with urban sprawl—the result is an even larger GHG footprint. Thus, an effective U.S. climate change strategy must consider options for reducing the GHG emissions associated with building construction, use, and location.

Energy efficient building design strategies and technologies currently exist and would require only modest levels of investment to implement. They would provide pay back the capital investment required to implement them over a short period of time and generate additional savings thereafter. By taking advantage of these opportunities, the United States could enjoy a more competitive economy, cleaner air, lower GHG emission, and less dependence on foreign oil.

Global warming is the principal emerging environmental issue that requires the attention of 110th Congress. The AIA seeks to extend its assistance regarding the GHGs contributed by the built environment as lawmakers craft solutions to these challenges.

What America Thinks: In a nationwide poll of voters (1,000 sample, margin of error +/- 3.1) conducted January 3-5, 2006, by two respected national pollsters—The Tarrance Group, a Republican firm, and Lake Snell and Perry, a Democratic firm—74 percent of voters polled said that “government *should take the lead* in promoting real estate development that conserves our natural resources such as oil, gas, and electricity.”

In addition, 71 percent of voters polled believe that “global warming is already having an affect on weather, and government should immediately put into effect new energy policies that drastically reduce greenhouse gas emissions that maybe causing climate damage.”