



Senator Feinstein Outlines New Legislation to Curb Global Warming, Keep Economy Strong

March 20, 2006

Washington, DC –U.S. Senator Dianne Feinstein (D-Calif.) today outlined legislation to reduce America’s emissions of greenhouse gases in order to minimize the impact of climate change on the Earth, while safeguarding our economy.

The legislation is currently being circulated as a discussion draft in anticipation of the April 4 Senate Energy Committee Climate Conference convened by Senators Pete Domenici (R-N.M.) and Jeff Bingaman (D-N.M.). It would establish a mandatory, cap-and-trade system that stops and then reverses the amount of greenhouse gases that are emitted over time. When the bill is fully implemented, America’s greenhouse gas emissions would be reduced by 7.25 percent of today’s emissions levels (reduced by 516 million metric tons of carbon dioxide).

“The clock is ticking on global warming,” Senator Feinstein said. **“If we do not slow, stop, and reverse global warming soon, we will do irreparable harm to the world around us. When fully implemented, this legislation would reduce emissions of greenhouse gases by 516 million metric tons of carbon dioxide a year. This is the equivalent of taking 111 million passenger cars off the road for one year. So this would be a major step in the right direction.**

The evidence continues to mount that harmful global warming is occurring. Polar ice caps and mountain glaciers are melting, seas are warming and rising. Weather patterns are changing, with devastating consequences.

That’s why we must act now, but in a responsible way. This legislation sets up a framework to begin reducing greenhouse gas emissions and stabilizing our climate, while safeguarding our economy, ensuring continued U.S. competitiveness, and allowing the agriculture and forestry sectors to earn revenue for helping the environment.

There are many who want us to sit on our hands and do nothing. But this is the one thing that we absolutely cannot afford to do. So I have developed legislation -- building on the fine work of others, including Senators McCain, Lieberman, Bingaman, and Domenici, and efforts underway in California – that I think makes an important contribution to the debate.”

**Strong Economy and Climate Protection Act
What Others are Saying**

"We applaud Sen. Feinstein's leadership to advance global warming solutions and we're pleased to see a provision to protect wildlife from the effects of global warming included in her bill. We look forward to working with her to further develop the draft bill and advance effective global warming legislation."

Larry Schweiger, President and CEO of the National Wildlife Federation.

"We appreciate Senator Feinstein's leadership on climate change and look forward to working with her to encourage U.S. industries, particularly the power sector, to pursue new, high-efficiency, low-emitting technologies, products, and practices."

Steven Kline, VP- Corporate Environmental and Federal Affairs of PG&E Corporation

**STATEMENT OF
THE PEW CENTER ON GLOBAL CLIMATE CHANGE
ON SEN. FEINSTEIN'S
DRAFT STRONG ECONOMY AND CLIMATE PROTECTION ACT OF 2006**

"The Pew Center on Global Climate Change applauds the leadership of Sen. Dianne Feinstein and others who are working toward the development of a national greenhouse gas cap-and trade program. Sen. Feinstein's draft Strong Economy and Climate Protection Act of 2006 includes many of the elements the Center would recommend in such a program, including:

- a modest initial GHG emissions cap that is gradually strengthened over time;
- a mechanism that would insure against temporarily high costs, but at the same time allow no increase in GHG emissions over the long term;
- financial support for innovative low-carbon technologies;
- a focus primarily on large stationary sources of GHGs (known as a "downstream" focus, as opposed to an "upstream" focus, which would primarily address the producers of fossil fuels); and
- the ability of facilities to fully offset their emissions with real verifiable GHG reduction and sequestration performed by entities not otherwise covered by the program.

The Center looks forward to working with the Senator and Congress to refine the bill, especially by:

- expanding access to international GHG markets and refining the set of farming and forestry practices that could be used as offsets;
- incorporating a mechanism, such as tradable corporate average emission standards, to address GHG emissions from transportation sources, in place of the requirement that oil producers submit allowances;

- assisting covered facilities in their transition to the program by providing a high percentage of allowances at no cost, at least in the initial years of the program; and
- strengthening provisions aimed at minimizing competitiveness impacts to potentially vulnerable industry sectors (i.e., energy-intensive industries whose goods are traded internationally).”

**Strong Economy and Climate Protection Act
Top Indicators of Global Warming
(Citations Available Upon Request)**

1) Melting of polar ice caps – *As temperatures warm, the poles are beginning to melt.*

- Over the past 25 years, the average annual Arctic sea ice area has decreased by almost 5% and summer sea ice area has decreased by almost 15%. According to NASA, the polar ice cap is now melting at the alarming rate of 9% per decade.
- The latest survey suggests that 36 cubic miles of Antarctic ice is melting into the sea each year. This rate is roughly double the average annual increase over the last century, and has raised sea level approximately 1 mm in the last three years. The collapse of the Larsen Ice Shelf off the Antarctic Peninsula, including one section larger than the state of Rhode Island, appears to have no precedent in the last 11,000 years.
- Air temperature in southeastern Greenland has risen by 3°C during the past 20 years, and the Greenland ice sheet is losing ice at an accelerating rate. In 1996, the amount of water produced was about 90 times the amount consumed by Los Angeles in a year. Last year, the melted ice amounted to 225 times Los Angeles' annual usage. The rate of melting has increased by almost 100% over the past five years.

2) Melting of alpine glaciers – *Mountain glaciers are shrinking in size and retreating in elevation.*

- The total mass of glaciers in the European Alps has declined by half.
- In Montana, Glacier National Park's largest remaining glaciers are now only a third as large as they were in 1850, and one study estimates that all glaciers in the park may disappear completely within the next 30 years.
- Some relatively low-elevation ski resorts in the Alps may have no snow at all within the next 15 years.

3) Heat waves and other extreme temperature events – *Global warming is causing increased variability in the weather.*

- Summer of 2003 was probably the hottest in Europe since the Year 1500, and its impacts were devastating, including death rates estimates of up to 35,000 people and economic loss of as much as \$16.2 billion. Scientists studying the heat wave showed that it is very likely that human influence on climate at least doubled the risk of such a heat wave.
- By the 2040s, if current trends continue, scientists estimate that more than half of years will be warmer than 2003, and that by the end of the 21st century, the summer of 2003 would be considered anomalously cold.
- More than 250 people died as a result of an intense heat wave that gripped most of the eastern two-thirds of the United States in 1999.

4) **Higher overall temperatures** – *As its name implies, global warming is raising temperatures worldwide.*

- The earth's temperature has risen 1.0 to 1.5°F over the past century, and scientists expect worldwide temperatures to rise another 1.0°F between 2000 and 2030, and an additional 2.0° to 4.0° by 2100.
- For people living in the Northern Hemisphere – most of the world's population – 2005 was the hottest year on record since 1880, the earliest year for which reliable instrumental records were available worldwide.
- The last decade has seen eight of the hottest ten years on record. Of the twenty hottest years on record, only one year (1944) is earlier than 1983.

5) **Increased storm activity** – *Global warming is expected to increase the frequency and severity of storms.*

- Many scientists predict that warmer sea surface temperatures mean more intense hurricanes, and we know the surface temperature of the ocean is rising in many places.
- Devastating Hurricanes Katrina and Wilma were part of the busiest, most intense Atlantic hurricane season in 154 years of record-keeping, though it is impossible to establish a direct link between global warming and individual storm events.
- Many hurricane scientists believe that Katrina and Wilma – and the cost in lives, money, and property – are indicators of what we can expect from storms in the future if we don't turn back global warming.

6) **Changes in weather patterns and water** – *Global warming is altering precipitation patterns, affecting water supply and agriculture.*

- Since 1900, annual precipitation has decreased over much of California - by 10%–25% in many areas.
- Many climate scientists predict that less rain will fall annually in parts of Africa within 50 years due to global warming. New research suggests that even a small decrease in rainfall on the continent could cause a drastic reduction in river water. A decrease in water availability could occur across about 25% of the continent, exacerbating preexisting problems with drought and food production, and heightening international tensions over sparse water supplies.
- The 1999-2002 national drought was one of the three most extensive droughts in the last 40 years. Montana, Colorado, and Kansas experienced severe dust storms, a product of dry conditions, in 2002.

7) **Warming oceans** – *Global warming is causing water temperatures to rise even faster than air temperatures.*

- Arctic waters, like the northern Bering Sea, are warming. Compared to 1997, spring ice cover in the north Bering Sea region is melting about three weeks earlier. Sea-bottom temperatures have increased from about 29°F in the early 1990s to 32°F in 1998.
- Some fish and whales are moving farther north to follow the cold water. Seals and walrus are faced with reduced food sources. Diving Eider ducks, which are a threatened species, are also in trouble.
- The northern Bering Sea is moving away from arctic and towards subarctic conditions, which, according to researchers, “may have profound impacts on Arctic marine mammal and diving seabird populations as well as commercial and subsistence fisheries”.

8) **Rise in sea level** – *As temperatures rise and the poles melt due to global warming, sea level will rise.*

- Water expands as it warms, and scientists have estimated one to three inches of sea-level rise due to thermal expansion alone over the last 100 years. This rate will accelerate in the future unless something is done.
- Thermal expansion and melting polar ice caps both contribute to rising sea level. Predictions of how much sea level will rise in the future range from about 3 inches to about 3 feet between now and 2100.
- Many of the ecologically richest regions in the world are low-lying delta areas – such as the Niger delta, much of Bangladesh, and the Amazon delta – that will flood first as sea level rises. In addition, even small sea-level rises could have catastrophic effects on Florida and many coastal U.S. cities.

9) **Species extinctions** – *Global warming threatens species all over the earth with extinction.*

- Coral reefs protect coastal areas from storms, floods and erosion, provide habitats for thousands of marine species, and attract tourists, assisting the economy of many tropical regions. Almost 15% of the world's reefs are already beyond repair thanks to global warming, and another 30% may be lost over the next 30 years, according to a report by the Pew Center on Global Climate Change.
- More than 110 species of brightly-colored harlequin frogs once lived near streams in Central and South America, but about two-thirds of them have vanished since the 1980s. A fungus, lethal to the frogs, is thought to be responsible. Scientists recently reported that global warming has altered the patterns of temperature, mist, and rainfall in the mountainous rainforests where the frogs live, creating ideal environments for the fungus to spread. The fungus threatens frogs in other regions as well, including California.
- Researchers recently studied 1,100 species to assess how many were faced with extinction risk from global warming. They estimated that 15%–35% of the species they studied would be at risk by 2050. Extrapolating this sample to global biodiversity suggests that more than a million species will be at risk for extinction by 2050.

10) **Spread of disease** – *Many species, including some (like mosquitoes and rodents) that can serve as vectors for disease, are altering their ranges in response to changing climate.*

- Cold weather, especially seasonal and nighttime lows, often acts as a check on species ranges. Global warming is disrupting this check.
- As warming climates allow these animals to move further north and to higher elevations, they bring tropical diseases like malaria, dengue fever, hantavirus, West Nile virus, and others with them.
- Mosquitoes that can carry dengue fever virus have recently appeared as high as 7,200 feet in the Andes of Colombia, where in the past they were not found higher than 3,300 feet.

11) **Ecosystem disruption** – *Global warming and its effects are leading to serious disruption of ecosystems worldwide.*

- The mountain pine beetle is a voracious predator of lodgepole pine trees. Beetle populations, controlled in the past by die-offs during cold spells, are exploding as the result of warmer winters. The beetles have infested an area of Canadian forest three times the size of Maryland, and are killing more trees in Canada than logging or wildfires. If this infestation crosses the Rockies, it could be a catastrophe for much of the western United States.

- Global warming may be one factor leading to increases in wildfires. In 2002, the Western United States experienced its second worst wildfire season in the last 50 years; more than 7 million acres burned. Colorado, Arizona, and Oregon had their worst seasons.
- Scientists have identified at least 279 species of plants and animals that are responding to global warming by shifting their ranges or changing the timing of life events (like hibernation seasons or incubation times).

**Strong Economy and Climate Protection Act
Discussion Draft – March 2006**

CAP AND TRADE SYSTEM

- **Cap** – The amount of greenhouse gases that a company would be allowed to emit would be capped at today’s levels from 2006 to 2010.
- **Ratcheting Down** – Beginning in 2011, the cap would be lowered gradually over time.

2010 – 100.00 % of today’s emissions	2016 – 96.55 % of today’s emissions
2011 – 99.50 % of today’s emissions	2017 – 95.58 % of today’s emissions
2012 – 99.00 % of today’s emissions	2018 – 94.63 % of today’s emissions
2013 – 98.51 % of today’s emissions	2019 – 93.68 % of today’s emissions
2014 – 98.01 % of today’s emissions	2020 – 92.75% of today’s emissions
2015 – 97.52 % of today’s emissions	

**7.25% reduction of greenhouse gases achieved – The equivalent
of taking 111 million automobiles off the road**

Companies would have two means of lowering emissions of greenhouse gases:

1. Implement new practices or technologies to become more efficient; or
2. Purchase credits from others in the market who have implemented pollution-reducing technologies.

KEY FEATURES OF THE PROGRAM:

Mandatory Reductions – All companies that emit significant greenhouse gases at a single facility – including utilities, oil and gas, and transportation facilities – would be required to achieve reductions. If they do not achieve reductions, they would be subject to fines. If they achieve reductions beyond their targets, they would be able to sell those surplus credits on the open market.

Oversight and Monitoring – The Department of Energy would oversee the program, levy fines on companies that don’t meet their targets, and ensure that the program is implemented fairly.

Market-based – The federal government wouldn’t tell companies how to meet reductions targets. Each company would make a decision based on what is in its best interest.

Safeguards America’s economic growth – A Carbon Market Review Commission would review the effect that this program is having on the economy. The Commission would have the authority to give companies more flexibility in meeting reduction targets if necessary.

HOW CREDITS CAN BE EARNED

Any organization that reduces greenhouse gases (including regulated companies that reduce emissions beyond required targets) can earn credits registered with the Department of Energy. The company can then sell those credits on the open market.

Access to low-cost farm and afforestation credits in the United States (Fact sheet available upon request) Like other proposals, this bill encourages broad participation from all sectors of the economy. But unlike other proposals, this bill does not limit participation from farmers. There is no limit to how many credits can be earned from agricultural carbon sequestration and afforestation. This is a win-win-win for farmers, for the economy, and for the environment. (*McCain-Lieberman, in contrast, would limit companies to meet no more than 15% of their emission needs in total from credits purchased from domestic farm, forest, and other offsets and international markets*).

- **This is a win for farmers and foresters** because they can earn revenue – \$8 to \$21 per acre, or more – from selling greenhouse gas reduction credits. Farmers and foresters can “grow” these credits in many ways - by shifting to conservation tillage, planting trees, and growing biofuel crops to produce low-carbon alternative fuels instead of fossil fuels to power our homes and vehicles.
- **This is a win for the economy** because it allows electric utilities and other large emitters to meet emission caps by switching to low-emitting technologies on a gradual schedule and buying lower-cost credits to cover their emission reductions while they gear up to make the transition.
- **This is a win for the environment** because it applies rigorous standards to ensure that credits are awarded only for real reductions in emissions and real increases in carbon storage. An added benefit: many practices to store carbon in the soil save water, reduce soil erosion, improve air quality, and protect wildlife habitat.

Access to low-cost international markets

Companies can purchase up to 25% of credits from international sources. (*McCain-Lieberman, in contrast, would limit companies to meet no more than 15% of their emission needs in total from credits purchased from international markets and domestic farm, forest, and other offsets*).

Other international provisions

The bill encourages other nations, including trade competitors and large emitting developing nations like China and India, to place caps on emissions.

- Nations that reduce emissions from deforestation – the largest emitting sector in the developing world – and nations that cap their own greenhouse gas emissions, or significant sectors such as the electricity sector, will gain easier access to our emissions trading market than nations that do not.
- Recognizing that it is unrealistic to expect many developing nations to adopt mandatory caps right away, the bill creates incentives for them to adopt voluntary caps – if they reduce emissions below those caps, they can trade in our market. By opening market access further for nations that adopt mandatory caps, the bill encourages all nations over time to adopt mandatory caps.

OTHER SIGNIFICANT PROVISIONS

- Encourages companies, communities and consumers (through free allocation of allowances) to implement large-scale innovations that save energy, reduce emissions, and earn emission allowances. This could include:
 - Car manufacturers that switch to highly fuel efficient cars;
 - Farmers that produce low-carbon ethanol or other greenhouse-friendly biofuels;
or
 - Retail and commercial businesses that install low-carbon technologies like solar panels on rooftops and energy-saving light bulbs and appliances.

- The bill requires the Secretary of Energy to review how other nations are doing in cutting their global warming pollution. If they aren't doing their fair share, the Secretary must inform Congress, and Congress can use fast-track procedures to alter the program, if necessary. (*This provision is similar to a proposal by Senator Bingaman.*)

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