

# Climate Change — Act or React

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Houston Forum  
June 15, 2005



This forum is the perfect venue for the topic I'm going to discuss today -- the need to take action on global climate change. The forum's mission is to encourage the exchange of diverse ideas. And based on my experience in the energy industry, I would expect that "diverse" is the most polite term many of you can come up with to describe my point of view.

This forum is also at the epicenter of the U.S. energy industry -- the undisputed energy capital of the world. Whether you're in the energy business or financial services, or any other sector of Houston's increasingly diverse economy, there's no question that the issues that affect energy affect you. And today, climate change is the issue that is front and center.

Being in the energy capital of the world reminds me of when I lived in Detroit -- the then automotive capital of the world. Starting in 1969, I spent eight years planning cars for Ford Motor Company.

In the early '70s, Detroit was the undisputed center of the industry, but a strange thing was happening. Dealers on the West Coast were complaining about cheap Japanese imports and east coast dealers were complaining about European luxury imports such as Mercedes.

I was given the assignment to determine just how pervasive this problem was and duly reported to a senior management committee that it indeed seemed to be a trend. At that point, the management team declared that the Japanese government was subsidizing their automobiles through an undervalued yen and that they could not sustain that position. The success of European luxury cars was dismissed as a fad with Henry Ford II (he was chairman at that time) declaring that all of his friends drove Lincolns and Cadillacs. (Of course they all drove company cars.)

Detroit spent the '70s in denial. It felt misunderstood in Washington, unappreciated by its customers and under attack by subsidized foreign competitors. Of course you all know the rest of the story. Today, Toyota is the third largest producer of cars in the U.S., Daimler-Benz owns Chrysler and Ford bought Jaguar, Volvo and Aston Martin. If he were alive today, Henry Ford would be driving a Jaguar.

I relate this story because Houston and the energy industry today share some of the characteristics of Detroit in the '70s.

When I left Houston, I firmly believed that climate change was a myth and that the issue would go away. But a few years overseas gave me a different perspective. And as CEO of the world's largest mining company, it was hard not to face environmental issues head on.

If you firmly believe we can continue to ignore the issue and it will go away, you probably won't be interested in the rest of what I have to say. But if you believe the issue may not be going away, please hear me out.

Although debate continues as to its cause and ultimate effect, few scientists disagree that the climate change phenomenon exists. Just a week ago, the U.S. National Academy of Sciences joined ten other national science academies in calling on world leaders to acknowledge that the threat of global warming is clear and increasing.

The national science academies urged the G8 nations, in particular, to address the causes of climate change and prepare for its consequences. In a statement, they asserted that sufficient scientific understanding of climate change exists to justify all nations identifying cost-effective steps they can take now to make substantial reductions in greenhouse gases.

There is general agreement that climate change is likely being influenced by human activity. Specifically, in the burning of fossil fuels, which account for 98 percent of U.S. carbon dioxide emissions. Fossil fuels that are used in transportation, in manufacturing and in power generation -- fossil fuels from which many of us in this room make our living!

Much of the debate about global climate change is focused on power plants, but that's only one piece of the story. Only 40 percent of U.S. carbon dioxide emissions come from power plants. Fully 60 percent are from other sources. So we shouldn't kid ourselves that we can address the issue through the electric sector alone.

To put it in perspective, the U.S. emissions reduction that would have been required under Kyoto is roughly equal to the 2002 emissions from U.S. power plants.

There's no technology available yet to reduce those emissions. So, in other words, for the electric sector to achieve the Kyoto-mandated reduction alone, we'd essentially have to shut down all of the country's fossil-fueled plants! Obviously, we cannot eliminate the use of coal or other fossil fuels for power generation in the near term without serious disruption to our economy.

That's why a viable solution to global climate change must encourage reduced carbon emissions from all sources and all segments of our economy -- not just a few.

Thirty percent of U.S. carbon dioxide emissions are from the transportation sector. And just like with power plants, there's no existing pollution control device that can cut the carbon dioxide coming from our gasoline engines. The only way to reduce emissions is to consume less fuel.

The remaining 30 percent of carbon dioxide emissions comes from other segments of the economy -- segments as varied as high-tech manufacturing to residential heating. That's why we need broad-based incentives -- not prescriptive regulation -- to address the issue. What we need is an economy-wide solution that provides incentives for companies and individual consumers alike to reduce the carbon they emit from all sources.

We have to act because, whatever the final state of the science, reducing greenhouse gas emissions has become a worldwide political and social imperative. And I believe it is an imperative where American leadership is not just expected; American leadership is required.

Whether the science is right or wrong, governments at various levels are reacting, and the real question is, what are the alternatives going to be -- and what ramifications will those alternatives have? If industry isn't at the table shaping those alternatives, I can promise you we won't like what other stakeholders in the process come up with!

You probably all saw Gov. Arnold Schwarzenegger's recent plan for reducing greenhouse gas emissions in California. Here in Texas, we may dismiss California as out of the mainstream, but we also know the maxim "where California goes, the rest of the country will follow." By the sheer size of its economy, California can create the standards that other states, industry or the federal government feel compelled to adopt.

To date, six states have enacted their own climate change legislation, and others are considering following suit. You might question whether or not this legislation will really have any effect. Well, take a look at Canada. I was in Ontario a few weeks ago and flew over a large coal-fired plant that had just been shut down -- because Ontario has determined that it will eliminate coal-fired generation by the end of 2007. It was sort of eerie to see bare ground where a huge coal pile used to sit. It may sound crazy, but it is happening.

I'm sure you would agree that we don't need a patchwork of inconsistent state or local regulations to complicate and increase the cost of compliance -- but that's exactly what we're getting in the absence of federal action.

Furthermore, until broad-based federal policies are enacted, there will be uncertainty around expansion and capital investment in key sectors of the U.S. economy, including the energy industry, manufacturing and transportation. We need to know what the rules are going to be -- which behaviors will be rewarded and which will be punished.

Depending on the approach taken to address greenhouse gases, a company might be incented to be a late mover or an early mover; it might have an asset or a liability; it might be a prime target; or it might dodge a bullet.

At Duke Energy, we have come to the conclusion that U.S. public policy on global climate change should encourage a transition to a lower-carbon-intensive economy through a broad-based, federal approach. We believe that any climate policy should:

(1) be economy-wide; (2) reduce emissions gradually; (3) be economically efficient; and (4) align with other energy and environmental policy objectives.

According to economists and other experts, a well-designed carbon tax can meet each of these criteria. And having looked at the alternatives, I believe a revenue neutral carbon tax which addresses greenhouse gas emissions from all sectors of the economy is the best approach. Now, I realize it has been viewed as political suicide to support such a tax, but at a minimum we should look at it as the standard by which other approaches might be viewed.

A revenue neutral carbon tax would act as a new kind of consumption tax on the sale of fossil fuels -- principally coal, petroleum products and natural gas -- based on their carbon content. It would be simple in concept, broadly applied and less subject to special interest pressure than other approaches.

A well-crafted carbon tax would do three things: First, it would provide incentives for conservation for everyone. Second, it would promote higher utilization of today's power plants that are low emitters of carbon and encourage low-carbon fuel choices for the future. And third, it would encourage the development of new technologies.

The greatest attraction of a carbon tax is its simplicity and the fact that it allows us to share the cost of reducing greenhouse gas emissions across all sectors of the economy -- minimizing the

disruption in any one area. Even if science proves that climate change isn't a major problem, a carbon tax is a "no regrets" policy that still results in less CO2 emissions, cleaner air and greater energy conservation.

A carbon tax would not mandate targeted reductions from one sector or another, but would instead send economic signals that enable businesses and individuals to make informed decisions. The revenues from the tax could be used to reduce or eliminate other taxes to make it revenue neutral.

There is a growing willingness to consider consumption taxes in the future as opposed to taxing income and investment. If such a shift were to be made it would make sense to base a consumption tax on carbon.

I don't want to get into a lot of detail on a carbon tax and how it compares to other approaches. In late April, Duke Energy submitted a proposal to the President's Advisory Panel on Federal Tax Reform outlining the tax reform benefits of introducing a phased-in carbon tax and I would be happy to share that proposal with any of you.

My real point today is that global climate change is not an issue that is going away. And if we don't take constructive action, others will.

From a business standpoint it makes more sense to act than react. From Duke Energy's point of view, it makes more sense to advocate a revenue neutral carbon tax -- even if it costs our business more and is hard to sell politically -- than to accept alternatives that fall short of achieving real results in an equitable, efficient manner.

There's another important point I want to underscore: We have great faith in American innovation. The mandate to become less carbon intensive will spur the kind of technology innovation that we saw in the last century. Innovation that propelled us to become the world's leading economy. Set the right goals, and Americans can and will lead the way.

I'm troubled that our international competitors -- motivated by mandatory emissions reductions -- have gotten a head start. Business Week recently reported that Japan is the world leader in solar and hybrid cars, and Europe leads in wind power. Reflecting back to Detroit in the 1970s, imagine where they would be today if they had decided to lead automotive innovation rather than resist it!

At Duke, we recognize that opinions differ on how to address climate change policy in the U.S., and we expect progress will be measured in years not months. With that said, we intend to be at

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the table helping craft policy to ensure that the interests of our customers and investors are represented. We believe it is critical that the energy industry help shape policy as it is being developed instead of waiting for the policy to shape our business and define our future.

Thank you.