

CARBON DIXOIDE: THE NEXT AIR POLLUTANT ON THE AGENDA

By Lisa Renstrom

EDITOR'S NOTE: Lisa Renstrom, national president of the Sierra Club, delivered this address March 22, 2006, at the Catawba College Center for the Environment's Clean Air: Community Strategies for Action Conference.

The Sierra Club's Executive Director, Carl Pope, and I were recently at a fundraiser for the Lieutenant Governor of South Carolina, Robert Barber.

He told the crowd: "We need to be clear. Unless environmentalists can run, and win, statewide in the South, we can never muster enough influence nationally to shape this country's agenda."

And it's true, we cannot go forward without the leadership of the South. We need the leadership from our elected officials, our businesses and all of us who are civically engaged in our communities.

I come here today as president of the Sierra Club, but it is you, the experts in North Carolina and leaders in your field, who are on the frontlines of our communities, working with policy makers, detailing facts and figures, forming partnerships and enlisting the support of others in the state. Without you, North Carolina would not be positioned to emerge as an environmental leader in the South, especially around air quality.

Thanks to many of you in this room, we have the Clean Smokestacks Act, the strongest legislation adopted by any state to clean up coal-fired power plants.

Thanks to the support of many of you in this room, Attorney General Roy Cooper stood up for the health of North Carolinians and is insisting that TVA clean up their plants and cease from creating a "public nuisance."

Our General Assembly has launched the Climate Change Commission. The next step is the Clean Car Initiative which, when passed, will make every new vehicle coming into this state cleaner -- for the price for a new set of floor mats.

Thanks to many of you in this room, the Clean Cars Initiative is on the table in the General Assembly...and will enable North Carolina to continue its leadership in the South. Your hard work and expertise is paying off.

Technology and Innovation

When you look at your brochure today, take a moment to examine some of the lectures and consider this small point in history: In 1907 Dr. Frederick Cottrell, a scientist from Oakland, Calif., applied for a patent on what would become the first pollution reduction devise for Thomas Edison's new power plant.

The electrostatic precipitator charged and collected particles from smokestacks and after the 1930s found its way into every coal-fired power



plant built in the US. This brochure tells us just how far we have come in the last hundred years.

Today we're talking about:

"The economics of purchasing hybrid vehicles"

"New Perspectives on Solar Finance Modeling"

"An Introduction to Smart Codes"

"Cooking up Bio-Diesel"

Innovation, entrepreneurship, has moved us far. Today we are talking about our future, our quest to produce the most efficient, healthiest and most economic energy possible -- *Our quest to include the full cost in the economic equation.*

This history -- this improvement -- really hit me in the face last month when I toured the Marshall Steam Plant in Catawba County. In the meeting room, there is a picture of the original plant, which opened in 1965. When the Marshall plant was built, electrostatic precipitators were a part of the plan.

Therefore it emitted less exhaust, dust, fly ash, coal tar, fine particles of cadmium, sulfur and lead than its predecessors, such as the Eno or Tiger Steam Stations, which were built in the '20s, before there were requirements to have electrostatic precipitators.

Unique burner arrangements and constant improvements have reduced nitrogen oxide emissions from the Marshall Steam plant. I couldn't actually see this technology when I peered into the square opening on the burners at red fire, but I'm sure the command center computers managed the process carefully.

In 2003, the Marshall plant was ranked as THE MOST efficient coal-fired power plant in the country, *meaning that it uses the least amount of coal to produce each kilowatt-hour of electricity.*

It was a cold, rainy day, but our tour took us to the roof, where we could see the construction of the new wet tower scrubbers that will reduce the sulfur dioxide emissions by about 90%. This \$400-million-dollar project is the first of a series of environmental retrofits Duke Power is undertaking on its steam plants in North Carolina stemming from the passage of North Carolina's landmark Clean Smokestack Bill.

From the roof we could see the location of future wetlands that will eventually further reduce the selenium, lead and mercury pollution. The progress was impressive and at the same time it highlighted how far we have to go. It highlighted the lack of anything that reduced or eliminated what may be the most salient pollutant of our time, carbon dioxide. There are no new construction, no blueprints, no new technology, for dealing with carbon dioxide.

The Next Air Pollutant on the Agenda

That may be the **only** point to remember from my 15 minutes – the air pollutant that needs to rise to the top of our hit list is carbon dioxide.

We have come a long way since the first pollution reduction device in 1907. There is much work that needs to be done. The good news is that we

have made progress on nearly every pollutant. The bad news is we have made progress on every pollutant except carbon.

I am here today to encourage you, the *experts, the leaders in the North Carolina and in the South*, to focus your considerable expertise and attention on new, smart energy solutions.

We need solutions to reduce our dependence on fossil fuels and nuclear power. We need solutions to reduce our dependence on oil.

President Bush recently declared in his *State of the Union* address that America is addicted to oil. He aptly identified the issue as a national and an economic security problem. North Carolina is no different. Oil dependence is a constraint on North Carolina's economy. We spend \$10 billion dollars annually, or \$25 million a day, on foreign oil.

With every imported tanker of oil, North Carolinians are sending jobs and economic growth overseas. We are enriching Russia, the Middle East and Venezuela.

Unfortunately, the reality is that the United States can't replace foreign oil with domestic oil. We simply don't have enough. While the U.S. amounts for nearly a quarter of global oil consumption, we only have 3% of the supply. Opening up ANWR or drilling off the coast of the Outer Banks isn't going to change that either.

The answer to our addiction to oil is the same as any addiction. The answer lies in strong incentives, discipline, tenacity and a little help from friends.

The answer lies in the way we choose to build our cities, the transportation options we choose to use. It lies in efficient cars and in bio fuels. And perhaps, it lies in hydrogen.

Efficient Cars

Australia, Europe, Japan and China all drive cars that are above 30 mpg. By 2010, the average new car sold in Europe and Japan will get over 45 miles per gallon.

Shouldn't US cars use the best technology? Why is Detroit leasing the technology from Toyota?

Bio-fuels

There is no question that we've just scratched the surface on the possibilities of bio-fuels. In Nebraska, where I grew up and where I visited last week, gasoline consumption declined 32% from '04 to '05 while at the same time vehicle miles traveled in the state increased 2%.

How did Nebraska do that? It did it on corn. Pull into any major truck stop and you'll find an ethanol pump. Hopefully, it will begin doing it on switch grass, an even more efficient, ecologically sensitive option.

There are already solutions to our oil addiction; we simply need to get people on the program. And it starts with North Carolina and it starts with you.

Green Electricity

What about where we get our electricity? How can we confront the carbon dioxide problem from that end of the stick?

Part of the answer lies in renewable energy sources biomass, wind, solar and geothermal. The other part of the answer lies in efficiency.

The United States, as a whole, uses twice the amount of energy to produce a dollar of goods as our European and Japanese counterparts. By reducing demand not only do we save money, but also we buy ourselves time to get the renewables to the grid.

We can reduce our demand by 30% in this country simply by being thoughtful, prudent and implementing efficiency. We could do it tomorrow.

The state of North Carolina is at a crossroads. North Carolina gets over 90% of its electricity from coal and nuclear sources. Duke Power recently announced plans for new coal and nuclear sites. There will be no blueprints in those plans for eliminating carbon and there is no answer for managing the nuclear waste.

In the past we have left it up to the utilities to determine what they were going to do. There has been limited public involvement. Our state utilities committee must enable our investor-owned utilities to focus on the future of North Carolina and commit to promoting efficiency.

I was in my home state of Nebraska last week, which is a Public Power State. And I was amazed at Omaha Public Power and Nebraska Public Power's commitment to helping schools, business and homeowner reduce consumption, be efficient. The stories are impressive.

Economic Opportunities

The bottom line is that it is in the best interest of the state and the nation to promote energy efficiency in today's policies. As I said, through efficiency we can eliminate ONE-THIRD of the carbon, and, more importantly, we can buy time to develop renewable energy sources to full capacity.

When we talk about Efficiency and Renewable Energy Technology, we are inevitably talking about changes in the status quo. And this is unnerving to some. What we have to be able to communicate is that these changes are not only necessary but present significant opportunity, both to serve our nation and to profit economically.

Thomas Freidman nailed this point in the following quote: "Being green is the new Red White and Blue.

"It is the most geo-strategic, pro-growth and patriotic thing we can do. Living green is not for sissies. Sticking with oil, and basically saying that a country that can double the speed of microchips every 18 months is somehow incapable of innovating its way to energy independence -- that is for sissies, defeatists and people who are ready to see American values eroded at home and abroad."

Let me give you just a few examples of what others are doing that are working.

California has been investing in energy longer than in other state in America. Today, new homes in California use only 25% of the energy of older homes, thanks to smarter building codes. That saves consumers money.

In Salt Lake City, Utah, the city recently upgraded its traffic lights with more efficient bulbs. They save over \$50,000 per year on electricity, not to mention 500 tons of carbon dioxide pollution.

The Municipal Utility in Waverly, Iowa, paid farmers to put wind turbines on their land. They are already halfway to their goal of producing 10 percent of the community's total power from wind.

When the San Diego School District needed to replace the roofs on many of their school buildings, they opted to use solar roofs instead. The district anticipates \$7 million in total cost savings over 20 years. Or, \$350,000 per year.

Unleash the entrepreneurial spirit of Americans.

While progress feels slow, opportunities are being realized all over the country. And that makes me optimistic.

By implementing green solutions to climate change, it will help us be globally competitive, it will reduce our conflicts, and it may even enable polar bears to continue to roam an ice cap.

I told you earlier that my main objective today was to encourage you, the experts on air quality, the leaders in the South, to focus your considerable know-how and attention on new, smart energy solutions on carbon dioxide. The leadership at the federal level is simply not getting the job done. That puts even more weight on the shoulders of businesses and state and local governments to pick up the slack.

Where government is willing to act, we must help it act responsibly. Where government is not willing to act, we must replace government with leaders who will. We must just roll up our sleeves and take action ourselves as thoughtful, responsible leaders are doing all across the country.

And it's our responsibility to see that they account for true costs, realize the benefits, and get the job done right. But that's okay.

As I said before, I have worked with many of you through out the years. I have seen the progress we have made in this state, and I know that we are up to the challenge.