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Non-Administration Testimonies - Global Climate Change [Binder] [2]

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**FINANCIAL ENERGY
MANAGEMENT, INC.**

Turning Savings Into Assets

Testimony of:

**James C. Crossman
Financial Energy Management, Inc.
Denver, Colorado**

Presented to:

**U.S. Congress House of Representatives
Subcommittee on National Economic Growth, Natural Resources, and Regulatory Affairs**

April 23, 1998

Good morning Chairman McIntosh, and Subcommittee members. My name is Jim Crossman and I am the founder, and president of Financial Energy Management, Inc. (Financial Energy), a Denver, Colorado based energy services company (ESCO). My company provides energy and water audits of existing businesses to identify ways to cost effectively reduce the consumption of gas, electricity and water. In addition to consulting in energy efficiency, Financial Energy is a contracting firm which designs, builds, and manages energy conservation retrofit projects. Financial Energy measures and guarantees that the utility cost reductions will meet the estimated amount determined in the audit. Using performance contracts or "shared savings" financing, Financial Energy pays for the design and construction of the retrofit work, and is paid back out of the future energy cost savings.

We are a relatively small company with sales averaging \$2.25 million per year for the last two years. As we have established ourselves in the market, our sales have increase dramatically, as we have grown 280% over the last four years. We employ about 15 people who have many diverse skills including: 1) licensed mechanical engineers for design work; 2) journeyman electricians for motor and lighting installations; 3) licensed architects; and 4) window film applicators for solar heat control.

The Company was formed in 1984, and in the past 14 years we have retrofitted hundreds of buildings including apartments, industrial facilities, schools, hospitals, and offices. In just a little over four years, we have retrofitted 77 buildings totaling approximately 6 million sq. feet. These energy efficiency upgrade projects have saved owners \$1.1 million in utility expenses at an installed cost of \$3.4 million.

What we stress to our clients is that energy efficiency is a tremendous investment opportunity which improves comfort and increases productivity. A building owner who invests in energy conservation in his/her own building can expect a return on investments (ROI) in the range of 20-60%. Since 1984 Financial Energy has identified \$35.2 million in energy investments with an average ROI of 35% per year in buildings that were considered by their owners to be relatively energy efficient.

More recently we have begun to emphasize the environmental benefits of energy efficiency. The electricity saved is directly related to the reduction in coal or natural gas burned at the power plant. For example, in the 77 buildings I mentioned earlier, the projects are saving approximately 970,000 therms of energy (1 therm = 100,000 Btu's) or about 28 million kilowatt hours (kWh) of electricity per year. These project's electric savings, if produced with coal as is the case in Colorado, eliminate the burning of 17,000 tons of coal (34 million lbs.) each year which would in turn emit about 28,000 tons of carbon dioxide and 144 tons of sulfur dioxide at the power plant.

A residential energy rating program in Colorado has identified an average energy efficiency retrofit of a home costing \$2,000 and saving about \$200 per year in natural gas. The natural gas saved reduces emissions by about 2 tons of CO₂ per house per year. In an all electric home the savings are about \$400 for the same \$2,000 retrofit cost and on average and the CO₂ emissions savings are about 7 tons of CO₂ per year per house.

Last year our Company completed an energy efficient lighting retrofit of a 1.3 million square foot office building in Denver. The 56 story building is now saving 3,680,000 kWh of electricity

and over \$280,000 a year in utility costs. By not burning coal to produce this electricity, the project is reducing CO₂ emissions by 7,544,000 lbs and SO₂ emissions by 37,760 lbs. Using T-8 lamps and electronic ballasts, the project has improved lighting levels and visual acuity for tenants. The T-8 lamps, which are 1" in diameter verses the standard 1 1/2" diameter lamps, contain about one half of the mercury which of course will reduce mercury levels in land-fills. Additionally, the efficiency gains in the lamps and ballasts have reduced the heat given off by the lighting fixtures, which reduces the air conditioning load in the building. In fact, the building engineer stated that for the first time since the building was built they have not had to operate the building's second chiller. This is particularly good news for buildings which need to convert to ozone friendly HCFC refrigerants for their chillers. Often the HCFC refrigerant conversion produces a small loss of cooling capacity for the chiller. This loss of cooling capacity can be easily offset by a reduction in cooling load due to more efficient lighting.

In summary, energy efficiency is good business. Energy efficiency upgrades for businesses and homeowners offer improvements in comfort and productivity gains, as well as a good investment return. Energy efficiency creates jobs and helps to reduce our consumption of non-renewable resources such as coal, nuclear and natural gas. Finally, energy efficiency offers a negative cost way to reduce air and land pollution. "Negative cost" since energy efficiency retrofits are paid for many times over from utility cost savings. The cost savings to businesses and the environmental savings to society continue year in and year out for the life of the measures.

The White House Initiative on Global Climate Change has goals for CO₂ emissions which maybe met, in part, through cost effective investments in energy efficiency in our homes, our schools, our offices, and in our factories.

THE DENVER POST

BUSINESS

September 9, 1997

SECTION C



The Denver Post / John Prieto

Dennis Brachfeld of Financial Energy Management measures the temperature at an exhaust fan motor at Keyline Graphics in

Denver. Brachfeld's Denver company helps clients use energy more efficiently.

Change to save the world

Firm finds clients' energy waste

By Mark Eddy
Denver Post Environment Writer

Jim Crossman and Dennis Brachfeld are out to change the world by changing light bulbs.

Making office buildings, homes and apartment houses more energy efficient not only saves money for their customers and makes money for themselves, but helps the environment, both reasoned.

"I'm interested in promoting energy efficiency for the sake of reducing our consumption of a non-renewable resource, such as coal or natural gas," Crossman said. "It has environmental benefits, plus it's a good investment."

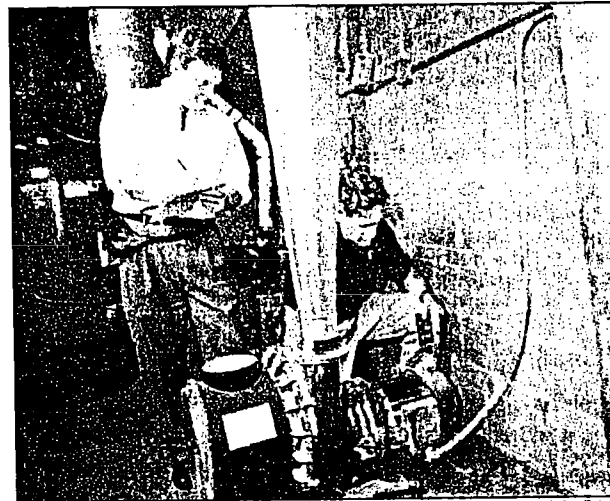
The two entrepreneurs have retrofitted everything from single-family homes to the behemoth Republic Plaza building in

Downtown Denver with energy-saving lights, showers and a variety of other devices designed to save water and cut energy.

In Republic Plaza alone, the pair cut the building's energy use 3.6 million kilowatt hours a year by installing efficient fluorescent lights, reflectors and connections and LED (light-emitting diode) exit lights. That saved the management company \$280,000 a year in energy and maintenance costs.

"It's cut operating costs, it's improved lighting quality and it's improved temperature comfort. It's a win-win for us," said Patrick Hilleary, regional manager of engineering for Republic Plaza owner Brookfield Management Services.

Please see **ENERGY** on 12C



The Denver Post / John Prieto

Edward Wernsman, left, and Dennis Brachfeld take the temperature of air-blanket pumps at Keyline Graphics. Financial Energy Management takes on jobs big and small, with varied solutions.

Firm targets clients' wasteful energy ways

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There's a hidden benefit to the retrofit, Crossman said: The environment won because of what didn't happen.

To produce the amount of electricity that was saved, a Denver power plant would have had to burn 3.9 million pounds of coal, Crossman said. That would have released 12.7 million pounds of carbon dioxide into the air. A mature tree absorbs about 13 pounds of CO₂ a year, so, retrofitting the Republic Plaza building and reducing the emission of CO₂, had the same impact as planting 983,000 trees.

"Energy efficiency reduces our consumption of non-renewable resources — coal, nuclear and gas — and it reduces air and land pollution," Crossman said.

Crossman, Brachfeld and Rebecca Vories started Financial Energy Management 14 years ago. By showing businesses how they can save money by saving energy, the company has steadily grown, and now does work all over the country.

"We went from screwing in light

bulbs and replacing shower heads to the biggest lighting retrofit job in Colorado," Brachfeld said of the Republic Plaza project.

While Republic Plaza was huge, the company's biggest job so far is a contract with Southern California Edison Co. to help its customers cut energy use by 20 gigawatt hours — roughly 10 times the savings they achieved with the Republic Plaza building.

They're so confident in their energy assessments that they guarantee the dollar amount a customer will save each month.

"If they don't save money then we don't get paid," Brachfeld said.

And to help cash-strapped companies pay for the work, they offer a financing program in which the customer pays them each month out of money saved by lowering energy costs.

"We're a partner in energy savings, that's a definite theme," Brachfeld said.

The two met when Crossman was doing consulting work just after he'd graduated from the University of Denver's business school with an master's degree in business administration in energy manage-

ment. Crossman ended up consulting for Brachfeld's company, About Saving Heat, which he still owns and operates. Then they hooked up with Vories and formed Financial Energy Management — and they were off.

Jobs have been big and small. The solutions to energy problems have varied.

Among the simplest fixes, Crossman said, was one job where they discovered a valve hadn't been turned off and the cooler was being fed hot water. They shut the valve and instantly the cooling costs dropped by several thousand dollars a month.

"The payback was instant," Crossman said. "All you had to do was shut the valve and save thousands of dollars for zero cost."

Another time they installed a small boiler in an apartment building in Minneapolis that was using its large winter-heating boiler to warm water for showers during the summer. Using such a large boiler to heat a small amount of water was extremely wasteful, Crossman said. "It was like digging tulips with a backhoe."

By using the small boiler to heat

shower and bath water, gas consumption dropped so much that the utility company thought something was wrong and went to the building to check its equipment.

"They assumed the meter was broken," Crossman said.

Another time, they figured out that heating costs in an apartment building had ballooned because the garage door kept jamming open and cold air was rushing in under the building, which refrigerated the floors in the apartments directly above. They put in a couple of metal guards to keep the door operational; the heating bills plummeted immediately.

Besides helping the environment, saving energy makes good business sense, Crossman said.

"Energy is the largest controllable expense a building owner has."

And with deregulation of the utility industry just over the horizon, conserving energy will become even more important, Brachfeld said.

So he and Crossman will be ready with their calculators and notepads, figuring out ways to save money, energy and the environment.

Statement of Robert H. Johnson**Before the House Sub-Committee On National Economic Growth,****Natural Resources and Regulatory Affairs****11:00AM April 23rd, 1998****2154 Rayburn Office Building**

My name is Robert H. Johnson. As a private citizen I want to thank the members and staff of the Subcommittee for this opportunity to speak in opposition to the ill-conceived Kyoto Treaty. MAY IT NEVER be signed by any member of the Senate. Nor may it ever be foisted on the American people through regulation, budget fiat or executive order. The Treaty must first be brought before the United States Senate and given very careful and thorough consideration. The proposal must be accompanied with hard analytical data produced by politically *neutral and impeccable scientific sources*. We can't afford to sacrifice reason and common sense to fear-based

decisions and actions.

I want you to know that I have been cautious about the environment long before it was fashionable. I built my 3500 sq. foot house in 1964 with greater than code required insulation. Today my heating bill is almost 50% less than the much smaller houses around me. I once drove a car that I entered in a gas milage competition and won because it got 68.63 miles to the gallon. I did it because it made logical and economical sense. That's what we need here, common sense.

Let me tell you the economic impact this Treaty could have on me. As you can see on the chart, in 1997 my family's expenditures for electricity, natural gas and gasoline were \$2845. Those costs could go up by \$1100 if the Kyoto Treaty is implemented. That is an unacceptable 38.6% decrease in our after tax income. It could put a pinch on our finances, but let me tell you about a

60+ year old resident of the District of Columbia that I know. She spends 83% of her \$704/month pension on her house payment. At the moment she still owes \$2,000 for gas consumed in 1997. This Treaty could decimate her meager spendable income. These could be real impacts on real people.

Though the personal effects could be adverse, I am even more concerned about the national effects of implementing this mis-guided Treaty. I have read a lot of articles about global warming and the Kyoto Treaty. It is appalling to me how complacent Americans have become about their own safety and sovereignty. Raul Estrada-Qyruela, Argentine's Ambassador to China and the person considered to be the architect of the Kyoto Protocol said, "Congress (he is referring to America's Congress) is out of touch with the rest of the world." Does Mr. Estrada know what's best for the United States? I do not believe that he does. Nor does the United Nations. Our military preparedness will suffer because of cuts in fuel usage for all

vehicles: land, sea and air. The current problems in our once proud military would be greatly exacerbated. And this would come at a time when non-participating countries such as China, North Korea, Iraq, Iran and others are building their military forces.

As jobs would be moved over seas to countries where environmental restrictions from the Kyoto Treaty would not apply, America will become weaker economically, to say nothing of the people here who will lose their jobs. What about those who are still working? The price of electricity and gas goes up AND they lose their jobs. That just isn't right.

Mr. Clinton, as President elect, came to Washington proclaiming that his administration would *be the most ethical ever*. I do not believe that he has come anywhere close to realizing that goal. I just don't trust him. You may or may not share my opinion but I'm telling you truthfully how I feel, and

you know what? I think there are some in this Congress who don't trust him either. On March 3rd, Trent Lott, Jesse Helms and Chuck Hagel sent a letter to the President. In that letter they requested that the President assure them that Secretary Eizenstat was correct in stating that the Administration would not seek to impose any binding restrictions on any elements of the U.S. economy that would have the effect of implementing terms of the Kyoto Protocol *without first being consented to by the United States Senate*. Does this sound as though they trust the President?

I hope you sense and understand my frustration and deep felt concerns. I hope you really do "feel my pain" and the pain of millions of seniors just like me. This Treaty goes far beyond hurting Americans financially. If signed, it would trample on America's soul. The American citizen has not been given enough information either pro or con to be in a position to make a completely informed and valid decision. So my plea is that each member of this

Committee makes sure the Congress gets all the facts related to the issue of global warming and uses, to the MAXIMUM, its full authority to control a President whose vision has been clouded by his need to build a legacy and by a Vice-President who is willing to use American's money and America's sovereignty as a stepping stone to the Presidency.

Much more than global warming is *at stake*. What's really at stake here is the possible loss of our sovereignty to the United Nations - May God forbid. You have my prayers and blessings to use all of your God given talents in pursuit of TRUTH and a return to the America that I fought for. Thank you all very much.

IMPACT OF KYOTO ON SENIORS

Mr. Robert Johnson (single home in suburban Maryland)

Impact on 1997 Expenses

Electricity	\$	793	25% increase	\$ 198
Natural Gas		1,074	40% " "	430
Gasoline		978	50 cents per gal	489
Total		\$ 2,845	39+% Increase To	\$3,952 (+\$1,117)

A widow acquaintance living in D.C.

Natural Gas 40% increase plus \$2,000+ accumulated deficit

Income \$704 a month

House Cost: 590 a month

Net Income \$114 a month
for Living

**“Proceed Cautiously When Considering Global Climate Policy Changes”
Testimony of Judy Kent
House Subcommittee on National Economic Growth, Natural Resources,
and Regulatory Affairs**

Good afternoon. I’m a “behind the scenes” sort of person, and while I’ve never done anything as daunting as speaking before a Congressional subcommittee, I feel compelled to come before you today to express my concerns. I’m concerned about the impact of the global climate policies, and how they will affect my family---and all consumers.

To be sure, I’m not an expert on climatic change or an expert on international treaties or economics. What I do know, however, is how important energy use is in my everyday life, and how global climatic policies will impact almost every aspect of my life. One thing is very clear, if the global warming policies are enacted, my world, and that of every American citizen will change.

Let me tell you a little about myself. I’m a married woman with two children and live in a single-family home in the Northern Virginia suburbs. My husband Frank is the full-time bread-winner for the family now. When he was in graduate school a few years ago, I had that role.

Right now I work as a homemaker, although I do do some outside freelance work, including helping my sister Beth with her housecleaning business. I have a daughter Megan who is 9, and a son Nicholas who is 5.

My parents had ten children and we were raised on Long Island before moving to California. About half of my siblings stayed out west, as did my now widowed, mother.

Today my life principally revolves around my children and their activities. Taking Nicholas to his pre-school 20-miles each way, transporting him and Megan to friends' homes, doing the daily errands, after school-sponsored classes, and weekly religious education classes means lots of time on the road and more trips to the gas station. And while my parents may have driven only 12,000 miles-per-year, 20,000 miles-per-year is my reality today.

Now, here, I'm afraid, is another reality. Passing the global warming policies now under consideration will mean higher energy costs, which will have a direct impact on the costs I'm paying for gasoline, housing, heating and air conditioning, lighting, food, and virtually every consumer product. Electricity costs could increase by almost 50 percent, as outlined by the WEFA economic study; household fuel prices could jump by 50 percent and the price of gasoline could rise by 36 percent.

Actually, these numbers I'm citing may be even larger, since the Clinton Gore Administration agreed in Kyoto to lower U.S. greenhouse gas emissions 7 percent below 1990 levels, which is greater than what the Administration had originally promised to do back in October.

To be sure, all consumers will bear the brunt of hasty action. Energy taxes and restrictions will affect people in every aspect of their lives. We're not hearing a whole lot about the true impact of these policies and the ramifications for all Americans if they are enacted. Here's how my family would be affected:

- Our home is all-electric. Even when keeping my thermostat at moderated levels, our annual electric bill still totals \$2,800.00. Global climate policies could raise those prices by about 50 percent in Virginia, which will force me to keep the indoor temperature much colder in the winter and warmer in the summer. If the global warming proposals are signed into law, my family's annual electricity cost will total \$4200.00, an additional \$1,400.00 per-year for electricity.

- As stated earlier, I'm driving 20,000 miles per-year. Like most families, we have two cars. Gasoline costs alone for both cars are about \$2,300.00 annually. If prices rise by 36 percent, that cost will jump \$840.00 for a total of \$3,140.00. If this becomes a reality, It's not hard to imagine cutting back on some of the children's extracurricular activities.
- In order to save on fuel costs, my husband and I would probably be driving smaller cars. Most importantly, I feel those much smaller cars would be less safe. Rationing of gas and waiting in long lines like those of the 1970's would probably become a reality.
- Air travel could also be impacted by imposing special energy taxes, which ultimately would be passed on to the consumer through higher prices for airline tickets. That too, is going to affect everyone, including people like my 76-year-old mother who lives in California. While she is by no means a "world traveler" on her fixed income, her main pleasure in life is visiting her 13 grandchildren. Our family, however, is spread out throughout the country- from California, to Montana, Washington, Pennsylvania, Virginia, and Montreal. Certainly on her modest income, grandma's trips would be less frequent.

- On the dinner table, we'll find the cost of both fresh and prepared food rising. I'm already paying over \$600.00 a month for the four of us to eat. Let's not kid ourselves, the increase in transportation costs would simply be passed down to the consumer.
- Other services for family members- nursing homes, day care centers, hospitals, will be more expensive as their own energy costs skyrocket. In addition, schools, fire and police departments and other municipal services will also experience their operating costs rise, which could lead to tax increases for every one of us. Services or personnel will need to be cut back, directly affecting my family's safety. I'm sure you'll agree that wouldn't be beneficial for any of us.

I'm also bothered by the fact that climate change policies will be unfair; individuals and families will be affected differently. People, for instance, who live in large states, like California, and drive their cars greater distances, would be harder hit by high gasoline taxes. Another group that doesn't always get the attention it deserves are the poor. No one is saying anything about the impact these policies will have on them. Because they pay a larger share of their income for utilities, household fuels, gas and food, they will have to cut back on the essentials in order to pay for the increased costs.

This should be a major concern to us all. Other groups who could be significantly impacted include senior citizens on fixed incomes who very often live in older, drafty homes. They will also have to compensate for higher energy costs by cutting back on heating and air conditioning, or spending less on food.

I haven't even talked about what lies ahead for my children if these proposals are enacted. By the year 2010, Megan will be 22 years old. If all goes well, she'll also be a new college graduate, ready to make her mark on the world.

The WEFA study estimates that during this same year, Virginia citizens could lose tens of thousands of jobs, and the U.S. as a whole could lose 1.8 million jobs, all due to the global warming policies now under consideration. It's not hard to understand how this could happen. Why would a U.S. manufacturer choose to stay here when they could go overseas where developing countries would not have the same limitations and strict emissions standards imposed on them as they do here in the United States. This could be the reality of Megan's world as she searches for that all-important first job.

Americans should be concerned about these policies. And they should be concerned about why Administration officials and policy makers are not openly discussing the impact this treaty could have on consumers, on every single American.

What they are feeding us are scare stories about how global warming has had a significant impact on our weather and what terrible things are going to happen to our health and well-being because of this alleged phenomenon called "global warming."

What we are not hearing from this Administration is that most scientists and researchers, those that have thoroughly examined global warming and its impact, do not share their gloom and doom global warming outlook.

Consumers and taxpayers cannot easily be swayed, and we are not buying that "gloom and doom" forecast. I opened my presentation talking about my concern for all of us if these global warming policies are enacted. I'm concerned because of all the reasons I've just outlined. I urge you to please proceed cautiously, ensure that the Administration provides us with better research and a clearer analysis of what the future holds for us all under their proposed policies. Enacting the global warming policies should not be fear-based, it should be fact-based.

I'm also thoroughly convinced that if the majority of Americans out there knew about the global warming policies now under consideration they would vigorously let their elected officials know of their concerns. Our policy makers and negotiators should understand this, and they should be required to provide a clearer analysis, discussion, and public debate on the impact of global warming policies, not legislate and negotiate on the basis of bad science.

Americans want an accurate and complete explanation on the true risks of global warming policies, and deserve to know what its real-world impact will be for families like mine and yours.

Thank you.

April 24, 1998

"I have not received any Federal grants or contracts during fiscal year-1998."

Judy Kent

STATEMENT OF MIAMI-DADE CLERK HARVEY RUVIN

**Presented to the U.S. House of Representatives
Committee on Government Reform and Oversight Subcommittee
on National Economic Growth, Natural Resources, and Regulatory Affairs
Room #2203 Rayburn House Office Building
Thursday, April 23, 1998 at 11:30 A.M.**

Mr. Chairman, Committee Members - Good Morning and thank you for your gracious invitation to appear here today to offer testimony on behalf of local government.

My name is Harvey Ruvin, currently serving as the elected Clerk of Miami-Dade County, Florida where I served first as a local Mayor and then for 20 years as a County Commissioner. I'm a past president of the National Association of Counties (NACo) and am now serving as President of USA-ICLEI and as Vice-Chair of the overall governing body of the International Council for Local Environmental Initiatives (ICLEI).

ICLEI is a democratic organization committed to build and support a world-wide movement of local governments to achieve and monitor tangible improvements in global environmental conditions through cumulative local actions.

Our global membership is comprised of over 350 cities, counties, towns and their associations. Each are focused on thinking globally and acting locally in seeking a sustainable future for their constituents. Climate change, or more aptly climate disruption, and sustainability issues are central to their efforts.

In the USA, we have a strong membership base. Our "Cities for Climate Protection Campaign" has over 50 American cities and counties containing 25 million people representing about 7% of overall U.S. greenhouse gas emissions. We partner with prestigious Public Technology (PTI), the non-profit technology transfer and commercialization arm of local governments in America.

Our efforts in the U.S. are closely monitored and we have already documented nearly 5 million tons of emissions avoided as a direct result of our joint efforts in the U.S.

Localities in America have clearly demonstrated that reducing CO₂ emissions can not only create jobs but save taxpayers money, while giving them a more livable environment.

I'm pleased to include for the record our report issued just prior to the Conference of the Parties III in Kyoto last December. ICLEI was given the honor of presenting formally to the COP III Plenary Session. I am also proud to enclose a copy of a recently issued Status Report on the progress that Miami-Dade County is making in implementing its CO₂ Reduction Plan. In the Clerk's Office we've undertaken re-inventions and implemented systems that allow our people to do more and more of their business electronically rather than always having to take that CO₂ emitting trip downtown.

Today's inquiry, I understand, is primarily with regard to the impact of climate change issues on employment. This committee's focus on jobs is obviously well-founded as a path to understanding both the impacts of not taking strong enough actions to curb climate disruption, as well as, those impacts on sustainable employment brought about by taking bold, coordinated actions in harmony with the international community. The key in both instances, Ladies and Gentlemen, are the words:

"SUSTAINABLE EMPLOYMENT"

Isn't it clear that employment within industries that are in the business of producing energy from finite sources are not sustainable jobs. And even worse, those are jobs that are, however unwittingly, contributing to the long-term non-sustainability of other jobs as well - indeed to the non-sustainability of all our futures.

Nevertheless, those jobs are held by people with real needs today. We need to address those needs compassionately as we transition those individuals and their families to the coming energy paradigms.

If appropriate actions towards renewable energy and efficiency technologies, emission avoidance strategies, etc., are not taken, then the impacts on jobs and the economy in general will surely be draconian due to the devastating inevitabilities of an ever-disrupting climate system with its damaging extreme events. Flooding, droughts, tropical storms and diseases and air pollution all have negative impacts on jobs.

I can attest to the devastation caused by tropical storms. In 1992, Hurricane Andrew, hitting the least dense part of my County, still left 100,000 people homeless and obliterated countless jobs in both tourism and agriculture. The final property damage total exceeded 20 billion dollars.

As more and more areas of the world's oceans reach temperatures capable of spawning "Andrew" type storms - more of these storms will surely occur - and in unprepared

places never before hit.

The impact on jobs of all types as a result of projected flooding of coastal areas could be among the most horrible of all projected impacts of climate change.

Inland areas of the country, involved in agriculture, fishing, tourism and beyond will all be impacted as our economy, as well as the global economy, suffers unabated climate disruption. In fact, if the worst scenarios become reality - jobs will become secondary to survival.

The Good news for jobs, as well as our survival, is to be found in taking coordinated bold action to combat projected climate disruption by encouraging and phasing in the commercialization of renewable forms of energy and by implementing a whole range of energy efficiency and sustainability strategies.

The following is a partial listing of various projections of employment impacts resulting from taking positive actions regarding climate change.

- According to Energy Innovations, a study recently completed by NRDC and four other independent energy policy organizations, U.S. emissions of carbon dioxide, the chief global warming pollutant, could be cut to 10% below 1990 levels by 2010 while national energy costs are reduced by \$530 per household annually and nearly 800,000 additional jobs are created. -- from an NRDC press release, 9/9/97.

From Energy Efficiency and Renewable Energy Network (EREN):

- For every \$100 million invested in the Million Solar Roofs Initiative, 3,850 jobs will be created, resulting in more than 70,000 new high-tech jobs by 2010.
- The wind energy industry presently supports more than 50 businesses in California; 1200 people are employed directly in these businesses and another 4,300 jobs have been created indirectly. Nearly all jobs are related to operating, maintaining, and servicing wind turbines.
- From biomass alone, 66,000 jobs are supported in the United States, with a great many in rural areas. By 2010, biomass power could support more than 283,000 U.S. jobs.
- The Sacramento Municipal Utility District's Conservation Power Program has saved \$45 million, increased regional income by \$124 million, created about 880

direct jobs, and added \$22 million to households in the area.

- The Massachusetts State Energy Office reports that the state realized a 257% growth in energy-efficiency firms between 1988 and 1992. This trend is happily occurring all over.
- 1992 study co-sponsored by the Solar Energy Industries Association, the American Gas Association, and the Alliance to Save Energy estimates 175,000 new jobs by 2010, through efficiency improvements, renewables, and strategic use of natural gas.
- The value of renewable energy equipment exports reached \$245 million in 1992, including \$210 million for photovoltaic equipment. Near-term export market expansion of \$800 million in sales of renewable energy and energy efficiency equipment would create approximately 29,000 new jobs.
- The Wisconsin Energy Bureau recently found that with a 75% increase the state's renewable energy use, the state would realize more than 62,000 new jobs, \$1.2 billion in new wages, and \$4.6 billion in new sales for Wisconsin businesses.
- About 293,000 new jobs could be created by 1995, 471,000 new jobs by 2000, and nearly 1.1 million new jobs by 2010 with a major national commitment to energy efficiency improvements.

In closing, our economy, indeed the global economy, cannot be sustainable unless our environment is made sustainable.

The era of a fossil based economy must come to a graceful end. A renewable energy based economy must be in our future, if we are to have a future in which we not only have jobs but a healthy world to live in as well.

The opportunity for our nation to lead the world, especially the developing world, to a sustainable future should not be either squandered - or sacrificed on the altar of non-sustainable carbon-based jobs.

We owe no less to the future of our planet and to all living things.

Thank you.



American Corn Growers Association

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Testimony of

**Sam Darwin
Member, Board of Directors
American Corn Growers Association**

Before the

**House Government Reform and
Oversight Committee**

**Subcommittee on National Economic Growth, Natural
Resources and Regulatory Affairs**

April 23, 1998

Chairman David McIntosh

Mr. Chairman and members of the Subcommittee, I'm Sam Darwin, a corn, popcorn, wheat and soybean farmer from Huntsville, Alabama and a member of the Board of Directors of the American Corn Growers Association. I am here today as a farmer to express my deep reservations over the proposed United Nations Global Climate Change Treaty and its effect on production agriculture.

I'm a fifth generation farmer, with my farm dating back to 1814. It's a family operation with my wife, son, daughter, son-in-law and daughter-in-law all sharing in the responsibilities of the farm. I farm approximately 3000 acres with 350 going into cotton, around 1000 going into corn and popcorn, and 1400 going into wheat to be double cropped with soybeans after wheat harvest. The remainder is planted to soybeans. In my area this farm is a little larger than average, but it needs to be to feed multiple families like it does.

I'm concerned about the Global Climate Change Treaty because the United Nation's own scientific panel states that agriculture is to blame for 20 percent of human-induced greenhouse gas emissions. In response to this, they have suggested that there should be considerations given to mandating limits on certain farming practices. These include limits on diesel fuel use, restrictions on tillage, limits on methane emissions from animal waste and restrictions on fertilizer, transportation and agricultural processing.

According to a study commissioned by the nationally respected Sparks Company, net farm income would drop by 46 percent if this treaty is implemented. This study also shows a 8.5 percent increase in cost of production, a 6 percent decrease in exports, a 33 percent increase in gasoline costs, a 130 percent increase in natural gas costs, a 500 percent increase in coal costs and a \$17.4 billion increase in consumers cost of food. All these increased costs are totally unacceptable to production agriculture and would result in economic hardships on my fellow farmers and ranchers and our surrounding rural communities. By adding close to \$.50 per gallon to the cost of diesel fuel and substantially higher prices on our electric rates, I would have to pay thousands more in production costs, eventually driving me out of business. In fact, diesel fuel alone would cost me over \$20,000 per year more under this treaty, and that could be the difference between profit and loss for my farm.

We live in a global economy. Much of what my farm produces is exported. With this in mind, agriculture has worked towards fair trade policies that level the playing field between the highly subsidized agricultural sector in other parts of the world and U.S. farm policy. Under the Global Climate Change Treaty, 132 so-called "developing" countries are exempt from the same tough, mandatory emissions standards facing the U.S. Many of these countries, including South Korea, China, India, Brazil, Argentina, and Mexico are direct competitors of ours. How can I compete when my production and financial hands are tied while other countries are free to plant and harvest all they can without any impediments and emission restrictions? The bottom line is that I can't compete when my own government stacks the deck against me and gives my business to other countries.

This treaty is flawed and unworkable unless every country plays by the same rules and regulations.

Agriculture is hard pressed. Prices for corn, soybeans, wheat, cattle and hog are falling while production costs continue to rise. The Global Climate Change Treaty will only make the situation worse. Someone will have to pay the higher prices for our diesel fuel, fertilizers, herbicides and electricity. And I'm afraid that someone will be me, and I simply can't afford it.

I'm proud to be a part of an Association that has shown so much leadership on this issue. I am also proud that we have been joined by many of the major farm organizations in our efforts to point out the numerous problems that production agriculture has with this treaty. We respectfully request that Congress think long and hard before endorsing this treaty as drafted. I'm afraid to think about what could happen to me and my family if the Global Climate Change Treaty were to be ratified as it's been proposed. This policy will make it increasing difficult for me to afford to grow the crops and hope to show some profit by the end of the year.

We have tough decisions to make concerning our environment. Agriculture doesn't ignore the possible problems associated with global warming. However, much more scientific study needs to be completed and the treaty effects on industry needs to be examined before we give our trading competitors the key to our markets and bring about higher food prices for American consumers. I ask that you analyze this treaty and take as much time as possible to view it's effects upon agriculture. After all, driving me out of business is not the answer to cleaning up our environment.

Thank you for allowing me to testify and I would be happy to answer any questions at this time.

STATEMENT
of
THE HONORABLE BEULAH COUGHENOUR
Member, Indianapolis/Marion County City-Council

before the
UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE
on
Government Reform and Oversight
SUBCOMMITTEE
on
National Economic Growth, Natural Resources, and Regulatory Affairs

with regard to the
WHITE HOUSE INITIATIVE ON GLOBAL CLIMATE CHANGE

2203 Rayburn House Office Building

April 23, 1998

Mr. Chairman, it is a pleasure to appear before your Subcommittee today to share my perspectives on the effects the *White House's Initiative on Global Climate Change* will have on American jobs and the American economy, including the economy in my home town of Indianapolis/Marion County, Indiana.

I am a member of the Indianapolis/Marion City-County Council. I chair the Council's Public Works Committee and have done so for 20 years. I have also chaired both the Committee on Energy, Environment and Natural Resources for the National League of Cities and the Committee on Environment, Energy and Land Use for the National Association of Counties. District 24, which I represent, has 34,000 people on the south side of Indianapolis/Marion County, including the St. Francis Hospital and Southport High School. I have a personal interest in a sound, healthful environment and have worked and continue to work to assure that my constituents have a healthy economy in which to work, educate their children, and lead productive lives.

Last June, I introduced a resolution on this subject before our City-County Council by which these issues were explored and considered carefully. Our Council supports a healthy environment and most everyone I know does. But I cannot support efforts that will produce no environmental benefits, possibly environmental detriments, all at great expense to the standard of living for my constituents. Not surprising to me, my resolution passed by an overwhelming vote of 26 to 1. On July 2, 1997, I submitted a similar resolution to the National Association of Counties. Both are attached to this statement, and I hope, will be made a part of your hearing record.

As someone who has worked throughout my more than 20 years of public service for protection of the environment, it grieves me to see the one-sided and damaging approach set forth in the White House Initiative. The Kyoto Protocol, a substantial underpinning to the White House Initiative, is at best unfair. While it would legally bind its signatories to future reduction in greenhouse gases to 7% less than their 1990 emissions levels, it would not require **any** reductions in 134 of the World's 168 countries, including exclusions for China, India, Mexico, and the former Soviet Union countries. **But it is in these developing nations where greenhouse gas emission increases have been the most dramatic.** There is no credible, scientific or other factual basis on which to conclude or even infer that this Protocol will reduce emissions in the World as a whole--our real goal!

From my years of experience in implementing other air pollution requirements for our citizens, I know that the costs for reducing greenhouse gases in my home town as elsewhere in the United States are going to be multiples of the costs for reducing greenhouse gases in developing countries such as China or Mexico where pollution controls are relatively nonexistent. A pound of greenhouse gas is a pound of greenhouse gas whether it's in China or Mexico. A well thought out initiative would be moving toward developing and funding pollution controls in the developing nations until those controls have obtained a parity with the controls already in place in the more developed countries. **QUITE FRANKLY, I THINK IT IS IN THE ECONOMIC INTEREST OF THE UNITED STATES TO BE EXPORTING POLLUTION CONTROL**

TECHNOLOGY TO DEVELOPING COUNTRIES SUCH AS CHINA RATHER THAN EXCUSING THEM FROM CLEANING UP THEIR AIR QUALITY.

It is virtually indisputable that the White House Initiative will result in higher energy prices, hitting hard the local economies that rely on energy intensive industries. For example, residential consumers would face a substantially higher energy bill under the proposed measure. Residential prices for energy would rise significantly above baseline levels in 2010: natural gas (73.5%), electricity (64.2%), and home heating oil (77.3%). The price of motor gasoline would also increase 49.9% relative to the baseline. These figures are according to WEFA, Inc., an international economic consulting firm.

Sharp increases in fuel and electricity prices would be felt across the nation. Industrial firms in Indiana would be burdened in the global competition for markets with price increases of over 90% for delivered natural gas and over 100% for electricity by 2010 versus baseline levels.

The steel, automobile manufacturing, agriculture, and coal mining industries in Indiana would experience severe impacts. These industries form the core of my State's economy. Implementation of this agreement could threaten thousands of good paying jobs--the very jobs that enable our local governments to thrive. Higher energy prices also threaten future economic development as businesses are forced by competition to move operations overseas in order to remain competitive. This uneven playing field

will put my community, and for that matter all of our Country's home towns, at a significant, possibly devastating disadvantage in the ever increasing global market place. And for what? Certainly not for a cleaner or better global environment!

In summary, we do know the White House Initiative on Global Climate Change (including the Kyoto Protocol) is unfair, will significantly, adversely affect the economy of the United States, including lost jobs and higher energy prices, ***and will do all the above with negligible global environmental benefit.*** As I said above, I think a better approach would be to reach out to the developing nations and work with them to assure that they have access to the pollution technology available today. They need that technology. Let's help them in a positive way, not by lowering the passing grade so that they can be pushed on into further environmental failure!

Again, I appreciate the opportunity to be able to provide this statement and would be pleased to respond to any questions or requests for further information that you might have.

CITY-COUNTY SPECIAL RESOLUTION NO. 51, 1997
Proposal No. 438, 1997

A SPECIAL RESOLUTION urging the U.S. President to reject the job-threatening U.N. treaty that would restrict energy usage by developed nations.

WHEREAS, the U.S. Government is involved in United Nations negotiations aimed at reducing greenhouse emissions in the post-2000 time period; and

WHEREAS, these negotiations are expected to culminate in an agreement by the end of 1997 which would legally bind the United States to reduce energy usage; and

WHEREAS, the "Berlin Mandate Decision" already specifically exempts all developing countries from emission reduction requirements, which will preclude meaningful progress worldwide to stabilize carbon dioxide concentrations; and

WHEREAS, the U.N. negotiating parties made a fundamental error when they agreed to negotiate legally-binding restrictions on the United States and other industrialized countries but to exempt high-growth developing countries like China, Mexico, Brazil and Korea from any new carbon reduction commitments; and

WHEREAS, as much as 60 percent of global carbon emissions are expected to come from developing countries in the next few decades; and

WHEREAS, the exclusion of new commitments by developing nations will create a powerful incentive to export jobs and capital from the U.S., shifting greenhouse gas emissions to other countries and do little or nothing to stabilize atmospheric concentrations of carbon; and

WHEREAS, such an uneven playing field will cause the loss of high-paying U.S. jobs in the mining, manufacturing, energy, transport and other sectors; and

WHEREAS, carbon taxes, or equivalent programs, will raise electricity, gasoline and other energy prices significantly to consumers and are highly regressive and most harmful to citizens who live on fixed incomes or work at poverty-level wages; and

WHEREAS, the U.S. Government has not completed a thorough economic analysis of the effects of a treaty on the U.S. economy, even though U.S. negotiators have been at the bargaining table for over 18 months and have agreed to a December, 1997, deadline for finalizing this far-reaching treaty or protocol; now, therefore:

BE IT RESOLVED BY THE CITY-COUNTY COUNCIL OF THE
CITY OF INDIANAPOLIS AND OF MARION COUNTY, INDIANA:

SECTION 1. The Indianapolis City-County Council urges the President to neither sign nor agree to sign in Kyoto in December, 1997, or thereafter, any agreement that applies mandatory commitments to reduce or limit greenhouse gas emissions only to the developed nations, thereby exempting developing nations; or that adversely affects the prosperity or employment stability of the people of the United States or any region or sector thereof.

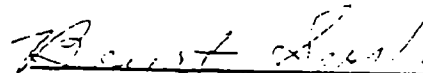
SECTION 2. The Mayor is invited to join in this resolution by affixing his signature hereto.

SECTION 3. This resolution shall be in full force and effect upon adoption and compliance with IC 36-3-4-14.

The foregoing was passed by the City-County Council this 23rd day of June, 1997 at 9:05 p.m.

ATTEST:

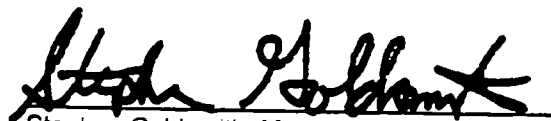

Suellen Hart, Clerk, City-County Council


Dr. Beurt SerVaas
President, City-County Council

Presented by me to the Mayor this 26th day of June, 1997 at 10:00 a.m.


Suellen Hart, Clerk, City-County Council

Approved and signed by me this 27th day of June, 1997.


Stephen Goldsmith, Mayor

STATE OF INDIANA, MARION COUNTY)
CITY OF INDIANAPOLIS) SS:
)

I, Suellen Hart, Clerk of the City-County Council, Indianapolis, Marion County, Indiana, do hereby certify the above and foregoing is a full, true, and complete copy of Proposal No. 438, 1997, a Proposal for SPECIAL RESOLUTION, passed by the City-County Council on the 23rd day of June, 1997, by a vote of 26 YEAS and 1 NAY, and was retitled Special Resolution No. 51, 1997, which was signed by the Mayor on the 27th day of June, 1997, and now remains on file and on record in my office.

WITNESS my hand and the official seal of the City of Indianapolis, Indiana, this 27th day of June, 1997.


Suellen Hart, Clerk City-County Council

(SEAL)

NATIONAL ASSOCIATION OF COUNTIES

ENVIRONMENT, ENERGY AND LAND USE STEERING COMMITTEE

RESOLUTION ON GLOBAL WARMING

WHEREAS, NACo supports the U.S. government's involvement in the United Nations negotiations aimed at reducing greenhouse gas emissions in the post-2000 period; and

WHEREAS, these negotiations are expected to culminate in an agreement by the end of 1997 which will legally bind the United States to reduce energy usage; and

WHEREAS, the "Berlin Mandate Decision" already specifically exempts all developing countries from emission reduction requirements, which will preclude meaningful progress worldwide to stabilize carbon dioxide concentrations; and

WHEREAS, the U.N. negotiating parties made a fundamental error when they agreed to negotiate legally-binding carbon restrictions on the United States and other industrialized countries but to exempt high-growth developing countries like China, Mexico, Brazil and Korea from any new carbon reduction commitments; and

WHEREAS, as much as 60 percent of global carbon emissions are expected to come from developing countries in the next few decades; and

WHEREAS, the exclusion of new commitments by developing nations will create a powerful incentive to export jobs and capital from the U.S., shift greenhouse gas emissions to other countries and do little or nothing to stabilize atmospheric concentrations of carbon; and

WHEREAS, such an uneven playing field will cause the loss of high-paying U.S. jobs in the mining, manufacturing, energy, transport and other sectors; and

WHEREAS, carbon taxes, or equivalent programs, will raise electricity, gasoline and other energy prices significantly to consumers and are highly regressive and most harmful to citizens who live on fixed incomes or work at poverty-level wages; and

WHEREAS, the U.S. Government has not completed a thorough economic analysis of the effects of a treaty on the U.S. economy, even though U.S. negotiators have been at the bargaining table for over 18 months and have agreed to a December, 1997 deadline for finalizing the far-reaching treaty or protocol:

THEREFORE, BE IT RESOLVED that the National Association of Counties urges the President to neither sign nor agree to sign in Kyoto in December 1997, or thereafter, any agreement that applies mandatory commitments to reduce or limit greenhouse gas emissions only to the developed nations, thereby exempting developing nations; or that adversely affects the people, prosperity or employment stability of the United States or any region or sector thereof.

Adopted by NACo
July 15, 1997

State of Rhode Island and Providence Plantations

SENATOR
WILLIAM A. WALASKA
140 Aldrich Avenue
Providence, Rhode Island 02889
District 17

Room 310, State House
Providence, Rhode Island 02903

Res.: 401-737-1065
Bus.: 401-751-5866
Fax: 401-421-4603



Senate Chamber

Secretary,
Joint Committee on Small Business

Committee on Corporations

Committee on
Health, Education and Welfare

Joint Committee on
Environment and Energy

**Remarks of State Senator Bill Walaska
Before the Government Reform and Oversight Committee,
Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs
Thursday, April 23, 1998**

Good afternoon. I am State Senator Bill Walaska of Rhode Island, where I sit on the Joint Environment and Energy committee. I am also a member of the American Legislative Exchange Council, the largest bipartisan membership organization of state legislators. Within ALEC, I am an executive committee member of the Energy, Environment, Natural Resources and Agriculture Task Force. I am here today to discuss the consequences of the Administrations' Global Climate Change policy.

Many aspects of the global climate change discussion are troublesome. Scientists have not reached a conclusion as to the existence of any long term warming trend, let alone the impact from human activity. Additionally, a treaty that is binding on some, but leaves others out of the mix would create sharp competitive disadvantages to the participant nations. The economic costs, which the Kyoto protocols acknowledge in exempting developing nations, would be extremely burdensome to nations like the US dependent on exports, energy production, and energy consumption.

As a state legislator, I am concerned about the attempt at “backdoor” implementation without ratification. The Environmental Protection Agency and other agencies have begun a concerted effort to exert pressure on state environment agencies to implement programs designed to meet Kyoto emission reduction goals. Such efforts circumvents the US Senate ratification process, violating separation of powers unconstitutionally. Our founding fathers never intended such a pervasive treaty affecting the entire nation’s security and economy to become the law of the land through the actions of unelected bureaucrats. In this regard, ALEC has passed a model bill reaffirming the Senate ratification process and state sovereignty. In my comments, I will touch on the concerns I have in the other areas, but I will focus on the one area about which there is little debate: the extreme economic burden the treaty would cause.

It is an entirely natural phenomenon for the climate of the world to change. Throughout history, the planet has experienced ice ages, and resultant periods of warming. In fact the world is still recovering from the Little Ice Age that occurred around the year 1400. The average global temperature fluctuates year to year, related in part to sunspot activity. Conditions such as El Nino, which has been occurring for thousands of years, also offer evidence of naturally occurring climate change.

Much of the public debate has been shaped by the media portrayals of impending doom. However, according to Accu-weather, the world’s leading weather forecasting company, there has been only a .45 degrees C change in this century, and satellite data shows that a slight cooling has occurred in the last 18 years. Additionally, the media seems to go through its own hot and cold periods. Twenty years ago there were reports of catastrophic global cooling.

Conversely, during a period of warming, the media will portray the impending disaster of catastrophic temperature increases. While periods of warming and cooling are normal, the question becomes; is there a human impact on these changes?

The basis for the Administration's Kyoto Climate Change Protocols is the proposition that human caused emissions of so-called greenhouse gases, or CO₂, are responsible for any warming. In fact, CO₂ is emitted by every living thing on the planet. Human activity accounts for only 2% of the emissions. The computer models available for forecasting today offer contradictory results. They have limited ability to predict with certainty the weather next week, let alone next century. They can not accurately predict how the climate will respond, how much if any warming will occur, how soon it will happen, and what the impacts will be.

While I am not a scientist, I do know that a Gallup survey of the American Meteorological Society and the American Geophysical Society found that only 17% of their members believe that any warming is the result of human activity. Additionally, over 15,000 scientists recently signed a petition that urged the rejection of the Kyoto protocols. These scientists find no convincing evidence that human activity is causing heating of the atmosphere, or disruption of the climate. The signatories include over 2,000 geophysicists, climatologists, meteorologists. Many of the rest are trained in fields able to critically evaluate climate research. This seems to me a clear message from the scientific community that there is still much debate about global climate change.

Leaving aside the scientific debate, there also exists the issue of fairness. Any effort

designed to cut emissions of greenhouse gases must include universal participation. If human activity causes only 2% of greenhouse gas emissions, the nations whose industries emit the greatest concentrations of greenhouse gases must participate in any reduction plan. While developing nations were exempted precisely because of the economic burden of reducing emissions, this leaves the US and other developed nations at a competitive disadvantage. As Mike Buckner of the United Mine Workers said, "regardless of the science, it is a flawed agreement." Developed nations already spend far more on cleaning up the environment than do developing nations. This treaty would cause the US to bear an even greater proportion of economic hardship.

As I stated before, I am not a scientist. I am a state Senator. I am most concerned about the effects that this treaty would have on my family, my constituents, and my state. Economically, this treaty would be a disaster. Rhode Island currently ranks 26th in the country in economic growth, and 33rd in employment gain. Our employment level has not yet reached the 1990 peak. While much of the country has been experiencing flush economic times, Rhode Island is still in the midst of a fragile recovery. The emissions reductions called for in the administration's planning would jeopardize that recovery, and cause severe economic dislocation. A recent GAO study determined as much, concluding in part that "actions to reduce greenhouse gas emissions and global warming will have significant economic consequences." Far from the painless proposition the administration touts, the treaty would be a nightmare for the states.

The states hit hardest would be those with export intensive economies, or those that are either energy producing or high energy consumption states. According to the Wharton

Econometric Forecasting Associates (WEFA) study, under the proposed carbon stabilization case, the New England region would suffer a 1.9% decline in Gross State Product from the baseline by 2010. Employment would decline by .8%, and real personal income would decline by 1.6%. Under the current plan, these jobs would most likely be exported overseas, to non-participating countries. Manufacturing, agriculture, real personal income- all of these areas would suffer under the emission reduction plans.

Mandated reductions in energy consumption would result in price increases for all energy commodities. According to the Competitive Enterprise Institute, gasoline is likely to increase in cost by over 50 cents a gallon. In Rhode Island, home heating oil would increase in cost by 55% over the baseline. According to WEFA economists, commercial establishments, including hospitals, schools and industrial facilities would see electricity price increases of 35% by 2010. In fact, this amounts to an extremely regressive tax. For individuals and families on limited or fixed incomes, heating your home in the winter is hardly a luxury. For these people, expenditures on energy represent a relatively large percentage of their income, leaving them with less money to purchase other necessities. The increased cost of energy would have lasting, drastic economic effects on the citizens of Rhode Island and the nation.

And now for the silver cloud with the lead lining. New England is projected to be among the least heavily affected regions in the country! As Rhode Island is at the end of energy pipelines, energy costs are already very high. These high costs have driven away much of the manufacturing base, and there is little mining in the region. Still, in less than twelve years, my constituents would face direct and indirect costs per year of over \$3,000 per household. Other

speakers will go over the expected national economic impact, so I will only say that in all areas of the country, families will see real increases in unemployment, energy costs, and loss of wages.

As for the specifics of how the emissions reduction programs would be implemented, Rhode Island would again be hit hard. Rhode Island is still working hard and undergoing sacrifices to meet the goals of the Ozone Transport Assessment Group, (OTAG) and the National Ambient Air Quality Standards for Particulate Matter (NAAQS/PM). Rhode Island passed Senate Resolution 884, opposing new NAAQS and PM standards, and requesting identification of the full costs involved with this unfunded mandate. We are still working on meeting the current standards, and have not yet seen the results of a fully implemented the IM 240 program. Further unfunded mandates in the form of emissions reductions programs promoted by the EPA would be of grave concern to the states.

As a state legislator, I am concerned about the pressure the EPA is putting on state agencies. At recent conferences of the Environmental Council of States, cosponsored by the EPA, the tone was established at the outset. A conference brochure proclaims that the US "must now begin designing policies and programs to meet this (emissions) reduction goal." This is certainly premature, given the fact that the U.S. Senate has not ratified or even debated the merits of the treaty to this point.

In response to this pressure, ALEC has recently passed the State Responses to Kyoto Climate Change Protocols Act. This model bill, for use by state legislators around the country, prevents state agencies from promulgating rules and regulations designed to meet Kyoto

emissions reductions targets until three things have occurred. First, the United States Senate must ratify the treaty. Second, congress must pass implementing legislation. Third, the state legislature must also act. In this way, the constitutional separation of powers is protected, state sovereignty is respected, and if the treaty is ultimately adopted, states will be free to experiment and innovate in reaching the overall emissions goals.

It is clear that the debate over global climate change has yet to run its course. Implementation efforts by the EPA and state agencies should cease until important questions about the science have been answered, full participation in any agreement has been ensured, and the extreme economic costs have been taken into account. The United States should not implement the Kyoto protocol.

STATE OF RHODE ISLAND

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 1997

SENATE RESOLUTION

MEMORIALIZING THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AS IT UNDERTAKES A REVIEW OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE AND PARTICULATE MATTER

97-S 884

Introduced By: Senators Badeau, Kelly, Irons,
McBurney, O'Leary, Connors, et. al.

Date Introduced: March 4, 1997

Referred To: Read and Passed

WHEREAS, The United States Environmental Protection Agency (EPA) has the responsibility to periodically review the National Ambient Air Quality Standards (NAAQS) to ascertain if such standards are sufficiently protective of human health; and

WHEREAS, The EPA has proposed changes in the NAAQS relative to ozone and particulate matter which will make attainment of these new standards extremely difficult; and

WHEREAS, The State of Rhode Island, through its citizens, businesses, local governments, the General Assembly and its regulatory agencies, has worked with commitment and dedication to reduce air pollution and to meet the 1999 deadline for attainment of clean air standards; and

WHEREAS, The EPA is proposing to scrap the standards set by them for states, counties and local communities to achieve attainment of clean air and to substitute new, more restrictive standards which will make attainment more difficult if not impossible; and

WHEREAS, If the new standards for ozone and particulates are imposed, the entire state of Rhode Island, which is making great strides in meeting EPA's current standards, would have to impose even more stringent and costly controls on residents, local businesses and all levels of government; and

WHEREAS, EPA's own Advisory Committee of scientists recently concluded the new standards are not anymore likely to improve public health than existing standards; and

WHEREAS, Lowering the NAAQS for ozone and particulates may well preclude Rhode Island from ever achieving attainment, thus imposing significant and long lasting economic, administrative and regulatory burdens on the citizens of Rhode Island, their business and their governments; and

WHEREAS, Rhode Island regulatory agencies would be forced to devote substantial resources in developing a new State Implementation Plan (SIP) if the NAAQS standards are significantly revised by the EPA; now, therefore, be it

RESOLVED, That this Senate of the State of Rhode Island and Providence Plantations does hereby respectfully request and urge the United States Environmental Protection Agency (EPA), in support of its proposed NAAQS changes for ozone and particulates, to reveal the potential incremental health impacts and economic consequences of such changes, if any; and be it further

RESOLVED, That the Environmental Protection Agency is respectfully requested and urged, on behalf of all the people of the State of Rhode Island and Providence Plantations, to detail the unfunded mandates and/or other administrative burdens which a reduction in the NAAQS for ozone and particulates would impact on State and local governments, the economy and the citizens of the State of Rhode Island and Providence Plantations; and be it further

RESOLVED, That the Secretary of State be and he hereby is authorized and directed to transmit duly certified copies of this resolution to Ms. Carol Browner, Administrator, USEPA, 401 M Street, SW, Washington, DC 20460 and the members of the Rhode Island delegation to the United States Congress.

PD00573

SENATE RESOLUTION

MEMORIALIZING THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AS IT
UNDERTAKES A REVIEW OF THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR
OZONE AND PARTICULATE MATTER

Presented by

2
Roger R. Bales (32) (30)
William J. Brown (39) (38) J.R.C. (40)
John H. Brown (32)
Paul R. Brown (33)
Mary Anne Brown (30)
Mae A. Cate (31)
William D. Cate (17)
Muriel J. Cate (16)
M. J. Cate 43
John E. Cate 44
John E. Cate (36)
Dominick J. Ruggiero
John E. Cate (26)
William E. Cate (47)
Michael J. Cate (29)
Joanne M. Cate (28)
John E. Cate (37)
Stephen Cate (19)

IN THE SENATE MAR 0 4 1997

Read and PASSED

Robert V. Landis, Jr.

Reading Clerk

State Responses to Kyoto Climate Change Protocol

A Bill

IN THE [HOUSE/SENATE] OF [STATE]

An Act prohibiting the proposal or promulgation of state regulations intended to reduce emissions of greenhouse gases, prior to ratification of the Kyoto climate change protocol by the United States Senate and enactment of implementing legislation by the United States Congress.

An Act Concerning the Kyoto Climate Change Protocol

Short Title: This act may be referred to as the Kyoto Protocol Act of 1998.

Section 1. Findings and Purposes

The [House/Senate] of [State] hereby finds that:

(a) The United States is a signatory to the 1992 United Nations Framework Convention on Global Climate Change ("FCCC");

(b) A protocol to expand the scope of the FCCC was negotiated in December 1997 in Kyoto, Japan ("Kyoto Protocol"), requiring the United States to reduce emissions of greenhouse gases such as carbon dioxide and methane by seven percent from 1990 emission levels during the period 2008 to 2012, with similar reduction obligations for other major industrial nations;

(c) Developing nations, including China, India, Mexico, Indonesia, and Brazil, are exempt from greenhouse gas emission limitation requirements in the FCCC;

(d) Developing nations refused in the Kyoto negotiations to accept any new commitments for greenhouse gas emission limitations through the Kyoto Protocol or other agreements;

(e) With respect to new commitments under the FCCC, President William Clinton pledged on October 22, 1997, that "The United States will not assume binding obligations unless key developing nations meaningfully participate in this effort";

(f) On July 25, 1997, the United States Senate Resolution No. 98 by a vote of 95-0, expressing the Sense of the Senate that, *inter alia*, "the United States should not be a signatory to any protocol to or other agreement regarding, the Framework Convention on Climate Change...which would require the advice and consent of the Senate to ratification, and which would mandate new commitments to mitigate greenhouse gas emissions for the Developed Country Parties, unless the protocol or other agreement also mandates specific scheduled commitments within the same compliance period to mitigate greenhouse gas emissions for Developing country Parties;"

(g) The Kyoto Protocol fails to meet the tests established for acceptance of new climate change commitments by President Clinton and by U.S. Senate Resolution No. 98;

(h) Achieving the emission reductions proposed by the Kyoto Protocol would require more than a 35 percent reduction in projected United States carbon dioxide and other greenhouse gas emissions during the period 2008 to 2012;

(i) Developing countries exempt from emission limitations under the Kyoto Protocol are expected to increase their rates of fossil fuels use over the next two decades, and to surpass the United States and other industrialized countries in total emissions of greenhouse gases;

(j) Increased emissions of greenhouse gases by developing countries would offset any potential environmental benefits associated with emissions reductions achieved by the United States and by other industrial nations;

(k) Economic impact studies by the U.S. Government estimate that legally binding requirements for the reduction of U.S. greenhouse gases to 1990 emission levels would result in the loss of more than 900,000 jobs in the United States, sharply increased energy prices, reduced family incomes and wages, and severe losses of output in energy-intensive industries such as aluminum, steel, rubber, chemicals, and utilities;

(l) The failure to provide for commitments by developing countries in the Kyoto Protocol creates an unfair competitive imbalance between industrial and developing nations, potentially leading to the transfer of jobs and industrial development from the United States to developing countries;

(m) Federal implementation of the Kyoto Protocol, if ratified by the United States Senate, would entail new Congressional legislation whose form and requirements cannot be predicted at this time, but could include national energy taxes or emission control allocation and trading schemes that would preempt state-special programs intended to reduce emissions of greenhouse gases;

(n) Piecemeal or other uncoordinated state regulatory initiatives intended to reduce emissions of greenhouse gases may be inconsistent with subsequent Congressional determinations concerning the Kyoto Protocol, and with related Federal legislation implementing the Kyoto Protocol;

(o) Individual state responses to the Kyoto Protocol, including the development of new regulatory programs intended to reduce greenhouse emissions, are premature prior to Senate ratification of that Protocol, in its current or amended form, and Congressional enactment of related implementing legislation;

(p) There is neither Federal nor [State] statutory authority for new regulatory programs or other efforts intended to reduce greenhouse gas emissions for purposes of complying with or facilitating compliance with the provisions of the Kyoto Protocol.

Section 2. Restrictions on State Regulations Related to Greenhouse Gas Emissions

(a) Effective immediately, the [Secretary/Administrator/Director] of the [State] [Department/ Agency of Environmental Protection or any appropriate agency] shall not propose or promulgate any new regulations intended in whole or in part to reduce emissions of greenhouse gases, as such gases and emissions are defined by the Kyoto Protocol, from the residential, commercial, industrial, electric utility, transportation, agriculture, energy, or mining sectors;

(b) In the absence of a resolution or other act of the [House/Senate of ____] approving same, the [Secretary/Administrator/Director] of the [State], [Department/Agency of Environmental Protection or other appropriate agency] shall not submit to the U.S. Environmental Protection Agency or to any other agency of the Federal Government any legally enforceable commitments related to the reduction of greenhouse gases, as such gases are defined by the Kyoto Protocol;

(c) Nothing in this section shall be construed to limit or to impede state or private participation in any on-going voluntary initiatives to reduce emissions of greenhouse gases, including, but not limited to, the U.S. Environmental Protection Agency's Green Lights program, the U.S. Department of Energy's Climate Challenge program, and similar State and Federal initiatives relying on voluntary participation;

(d) This Act shall remain in effect until repealed by an Act of the Legislature of the [State/Commonwealth] of [State], or until ratification of the Kyoto Protocol by the United States Senate and enactment of Federal legislation implementing the Kyoto Protocol.



**House of Representatives
Lansing, Michigan**

TOM ALLEY
STATE REPRESENTATIVE
STATE CAPITOL
LANSING, MICHIGAN 48913
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CHAIR: CONSERVATION, ENVIRONMENT
AND RECREATION
COMMERCE
FORESTRY AND MINERAL RIGHTS
PUBLIC UTILITIES
LEGISLATIVE COUNCIL

**Remarks of Michigan State Representative Tom Alley
Before the Government Reform and Oversight Committee,
Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs
Thursday, April 23, 1998**

I am State Representative Tom Alley of Michigan, chair of the Conservation, Environment and Recreation Committee within the Michigan House. I am also a member of the American Legislative Exchange Council (ALEC), the nation's largest bipartisan membership organization of state legislators with over 3,000 state legislative members nationwide. Within ALEC, I am chair of the Environmental Subcommittee on the Energy, Environment, Natural Resources and Agriculture Task Force. I sit before you today to discuss the grave misgivings I and many other state legislators have over the proposed Kyoto protocols.

In 1992, as a result of negotiations held in Rio de Janeiro with over 160 nations, the United States entered into an agreement, the Framework Convention on Climate Change, calling for developed nations to reduce emissions of greenhouse gases which may impact the world's climate, causing global warming. The goal of this agreement was for the participating nations to voluntarily reduce greenhouse gas emissions back to 1990 levels.

That approach was abandoned in 1995 with the adoption of the Berlin Mandate, and with

the US administration's agreement to accept binding reductions in July of 1996. Subsequently in December of 1997, during climate negotiations in Kyoto, Japan, the administration agreed to reduce greenhouse gas emissions in the United States to a level 7 percent below 1990 levels by the time period 2008 to 2010. Developing nations refused to accept any role in this agreement.

Global warming is a natural phenomenon. Greenhouse gases - water vapor, carbon dioxide and methane are the most common - trap some of the sun's warmth and keep it near the surface of the earth. This is important because if the greenhouse effect did not exist, our planet would be about 60 degrees colder and much of the earth's surface would be uninhabitable.

We know scientists have noticed that certain human activities, such as the burning of coal, oil and natural gas, have increased greenhouse gas concentrations and some are concerned about a human "enhanced" greenhouse effect. However, between 90 and 95 percent of all greenhouse gases come from natural sources. For example, cows raised in Argentina produce methane, as does rice grown in Thailand. Human activities produce less than 10 percent of global greenhouse gases. Furthermore, a variety of human activities produce greenhouse gases. Coal or natural gas-generated electricity releases carbon dioxide and methane, whether it's done in New Dehli, Hong Kong or Boise. Most of the developed world's factories and homes are heated with fossil fuels, which release greenhouse gases. Cars running on gasoline do too - as do fireplaces, whether they're lighted to cook food in Santiago, Chile or to warm the hands and feet on a cold winter's night in Reykjavik, Iceland.

Some scientists say human activity is changing the earth's climate, pointing to the 1°F rise in earth's temperature during the past 100 years. But other scientists see flaws in the theories of human contributions to global warming. According to Dr. Sally Baliunas of the Center for

Astrophysics at Harvard, while most man-made greenhouse gases entered the atmosphere after 1940, most of the observed temperature increase occurred before 1940. Moreover, the scientists who drafted and approved the United Nations *Second Assessment Report* on climate change stated that “no study to date has positively attributed all or part” of the 1°F rise in the earth’s temperature during the past 100 years to human causes.

Further, to what is the 1°F rise in the earth’s temperature compared? The best observational temperature records start around 1850, about the time the world emerged from the grip of a Little Ice Age that began around 1400 A.D. Many scientists therefore are not surprised that temperatures began rising “naturally” once this long cold spell ended. The difficulty comes when scientists try to separate “natural variability” from mankind’s impact on climate. As the U.N. document, *Climate Change 1995. Draft contribution of Working Group I to the IPCC Second Assessment Report* stated, “When will the detection and unambiguous attribution of human-induced climate change occur? We do not know.”

While the effects of global warming certainly raise serious concerns, they may not be immediate dangers. Experts who study this issue typically think in terms of 100 to 200 years. Many scientists believe we need to know more about how the climate system works before dramatic action is taken to change the way we use energy. Present computer capabilities are insufficient to provide a full analysis of the available data, and there remain uncertainties and variations in the mathematical models used to predict global climate change. Similar difficulties exist in predicting global climate change as exist in predicting the local weather as they both rely on the same science. Slight changes in the mathematical assumptions or the data used can create vast differences in climate forecasts stretching thirty, fifty, or one-hundred years into the future.

Climate models are a forecasting tool. However, these tools must be used with extreme caution. Our understanding of the underlying science continues to grow, and we are still limited by computers not powerful enough to portray local or regional impacts decades in the future. In the face of this still maturing science, policy makers are considering, or being asked to consider measures that would have far-reaching social and economic impacts.

As stated earlier, the administration has agreed to commit the United States to a 7 percent reduction in the production of greenhouse gases from 1990 levels by the year 2010. Such a reduction will have a dramatic effect on our economy and our society as a whole.

In the absence of the significant technological advances necessary to achieve the reductions, which may or may not be possible, the likely alternative would be significant increases in the price of energy. Such increases would adversely effect the price of practically all goods and services in the United States. According to WEFA, Inc., the estimated \$200 per metric ton carbon fee or tax necessary to reduce emissions to 1990 levels would have a wide range of impacts. Gasoline prices would rise significantly -- an estimated 50 cents per gallon -- creating a drain on household finances and raising the price of all transported goods. Household energy bills would likely increase \$900 to \$1,100 annually. Total output in the US would decline \$228 billion below the baseline and total output in Michigan would fall \$7.8 million below the baseline. The US would lose an estimated 1.8 million jobs and Michigan would lose an estimated 94,000 jobs. According to the American Farm Bureau Federation, total US farm production expenses would rise over \$10-20 billion under the current energy price increase models. This would represent a 24% to 48% decrease in the net farm income under the respective low/high energy price scenarios.

States heavily dependent upon exports of manufactured products would be negatively impacted. Higher input costs reduce the competitiveness of US manufacturing, especially against developing countries not required to limit carbon emissions, causing exports to fall below the baseline. Additionally, the demand for US exports in developing OECD countries falls as economic growth slows. States with exports representing a large share of output include California, Washington, Illinois, Texas, New Jersey, and Michigan. For Michigan, exports represent 15.3% of gross state product, second only to Washington.

The largest percentage of declines in Michigan employment would occur in durable manufacturing including transportation equipment, electrical machinery, and fabricated metals. In the non-durable category, the plastics industry would lose the most jobs. The largest absolute decline in non-manufacturing jobs would be in the trade sector, where 40,400 jobs are predicted to be lost by 2010.

In Michigan, with its large industrial manufacturing base, real gross state product would fall between 2.6 and 3.0% below the baseline in 2010. The hardest hit industry would be the auto sector. Production of auto components such as electrical machinery, plastics, and fabricated metals would be doubly impacted - first by higher overhead costs, then by reduced demand. Real output in the manufacturing sector would drop by 4.0% in 2010. Manufacturing losses would cause producers to reduce their purchases of labor and other services.

Wages and salaries would fall under the imposition of a carbon tax. Again according to WEFA, Inc., in Michigan a 3.4% decline in manufacturing wages is projected in 2010 relative to the baseline. Private non-manufacturing wages would fall 2.0%. Real income growth would be slowed by job losses. Currently, wages in Michigan's manufacturing sector tend to be higher

than in most nonmanufacturing industries. As economic activity and jobs shift away from the manufacturing sector, real income per capita would fall by \$371, or 1.7 percent versus the baseline in 2010. High economic costs are borne by all states, but energy producing states and export dependent states suffer a disproportionate burden. Michigan, falling under both categories, will suffer a double hit.

Each of the above losses would have a significant adverse impact on Michigan's economy if occurring alone. Occurring together, the impact is potentially devastating.

Given all the uncertainties inherent in the science of global warming, it is bad public policy to impose such radical changes to every aspect of our society. These sacrifices by the United States would be even more egregious in light of the fact that the agreements reached in Kyoto are not binding on the so-called developing countries including China, Brazil, and India.

Prior to the Kyoto accords, developing nations were expected to account for 60 percent of global carbon emissions over the next few decades. By the year 2025, it is expected that developing countries would likely be responsible for as much as 68 percent of all energy-related carbon dioxide emissions. By the year 2050, that number is 76 percent. The impact of the Kyoto agreements can only compound these numbers.

The likely impact of mandatory reductions of energy related carbon dioxide emissions in the United States and other developed countries will be to shift those emissions and their sources from the developed to developing countries. The exclusion of new commitments by developing nations will create a powerful incentive to export jobs and capital from the United States, shifting greenhouse gas emissions to other countries, and will do little or nothing to stabilize atmospheric concentrations of carbon dioxide. As developing countries are on the one hand exempt from

reaching any reductions from current levels, and on the other have more relaxed emissions standards, the net effect of mandatory reductions in developed countries will most likely be an increase in global energy production-related carbon dioxide emissions.

In October of 1997, based upon all the aforementioned factors, I introduced in the Michigan Legislature House Concurrent Resolution 70. Similar to S.R. 90 adopted by the United States Senate and H.R. 211 introduced by Congressman Joe Knollenberg (R-MI), H.C.R. 70 urges the President of the United States to reject any agreement on limiting greenhouse gas emissions that apply restrictions only to developed nations while exempting the developing nations. H.C.R. 70 received strong bipartisan support in both the Michigan House and Senate, and was adopted by both chambers by November 13, 1997. A copy of H.C.R. 70 is attached.

Long before the meetings in Japan, the Michigan Legislature felt it important to go on record as not supporting what was expected then to be an unfair agreement -- costing American jobs and economic productivity for little or no benefit. Given the agreements reached by the end of the Kyoto meetings, the concerns of those of us in the Michigan legislature supporting HCR 70 were certainly valid. They remain valid today.

Now, there is growing concern that the U.S. EPA is attempting to implement the treaty without ratification. By pressuring state environmental agencies to design and activate programs to reduce emissions, the administration may be attempting to gain "back door" approval of the Kyoto accords. Because of these actions by the EPA, and to preserve the separation of powers and the concept of states rights, the American Legislative Exchange Council recently adopted model legislation entitled State Responses to Kyoto Climate Change Protocol Act. Three states, Alabama, Illinois, and West Virginia, have already introduced this legislation, and many more

are expected to in the near future.

In the last two years alone, EPA has issued new national ambient air quality (NAAQS) and particulate matter (PM) standards, as well as ozone transport standards. In response, I have sponsored H.R. 13 and H.C.R. 11, and H.R. 214 and H.C.R. 87 respectively. H.R. 13, H.R. 214, and H.C.R. 87 have been adopted by the Michigan House, H.C.R. 11 was adopted by both the House and Senate. Copies of the four resolutions are attached to this written testimony.

Whatever the cause, global warming is a global problem. One in which all countries must take part if any real reductions are to be achieved. The Global Climate Treaty reached at Kyoto in December of 1997 is not the global solution necessary to make these necessary reductions. The net effect will be little to no impact on global emissions, at the cost of the destruction of our own economic and social well-being. In its current form, it is not good public policy.

I respectfully ask the United States House of Representatives to not support this treaty, and I would ask the United States Senate not ratify any treaty that does not bind all countries to achieving their fair share of reductions.

No. 11

JOURNAL OF THE HOUSE

House Chamber, Lansing, Tuesday, February 18, 1997.

2:00 p.m.

The House was called to order by the Speaker Pro Tempore.

The roll was called by the Clerk of the House of Representatives, who announced that a quorum was present.

Reps. Alley, Middaugh, Agee, Owen, Palamara, DeHart, Kelly, Scott, Mans, Sikkema, Goschka, Bodem and Callahan offered the following concurrent resolution:

House Concurrent Resolution No. 11.

A concurrent resolution to urge the United States Environmental Protection Agency to reaffirm certain standards of ozone and particulate levels.

Whereas, The United States Environmental Protection Agency (EPA) has a responsibility to review periodically the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter (PM); and

Whereas, The EPA is considering establishing a more stringent ozone standard and a new, more stringent standard for particulate matter at or below 2.5 microns (PM_{2.5}); and

Whereas, Michigan, through its local jurisdictions, businesses, and citizens, has supported health-based National Ambient Air Quality Standards (NAAQS) that are premised on sound science; and

Whereas, Michigan has made significant progress in meeting current NAAQS for both ozone and particulate matter (PM) under the Clean Air Act amendments of 1990, although there are some areas that have not yet come into compliance with the current standard(s); and

Whereas, Michigan, through its local jurisdictions, businesses, consumers, and taxpayers, has borne considerable cost to come into compliance with the current NAAQS for ozone and particulate matter; and

Whereas, The proposed new standards will significantly expand the number of nonattainment areas for both ozone and particulate matter. This may result in additional emission controls in all areas, thus imposing significant economic, administrative, and regulatory burdens on Michigan, its citizens, businesses, and local governments; and

Whereas, EPA's own Clean Air Science Advisory Committee (CASAC) was unable to find any "bright line" that would distinguish any public health benefit among any of the proposed new standards for ozone, including the current standard; and

Whereas, There is very little existing PM_{2.5} monitoring data; and

Whereas, There are many unanswered questions and scientific uncertainties regarding the health effects of particulate matter, in particular PM_{2.5}, including:

- Divergent opinions among scientists who have investigated the issue;
- Exposure misclassification;
- Measurement errors;
- Lack of supporting toxicological data;
- Lack of a plausible toxicological mechanism;
- Lack of correlation between recorded PM levels and public health effects;
- Influence of other variables; and
- The existence of possible alternative explanations

; and

Whereas, No scientific proof exists that establishing a more stringent ozone standard or a new, more stringent PM_{2.5} standard would avoid alleged adverse health, but it would assuredly impose significantly higher costs; now, therefore, be it

Resolved by the House of Representatives (the Senate concurring), That we advise and strongly urge the EPA to reaffirm the existing NAAQS for ozone; and be it further

Resolved, That we advise and strongly urge the EPA to reaffirm the existing NAAQS for PM₁₀; and be it further

Resolved, That we advise and strongly urge the EPA to refrain from establishing a new NAAQS for PM_{2.5} at this time and to gather the necessary PM_{2.5} monitoring data and conduct all necessary research needed to address the issue of causality and other critical and important unanswered scientific questions concerning PM_{2.5}; and be it further

Resolved, That we advise and strongly urge the EPA to identify any unfunded mandates or other administrative and economic burdens for state or local governments or agencies that would result from the proposed changes to the NAAQS for ozone and particulate matter; and be it further

Resolved, That copies of this resolution be transmitted to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, the members of the Michigan congressional delegation, the administrator of the United States Environmental Protection Agency, and other appropriate administration officials.

The concurrent resolution was referred to the Committee on Conservation, Environment and Recreation.

No. 14
STATE OF MICHIGAN
JOURNAL
OF THE
House of Representatives
89th Legislature
REGULAR SESSION OF 1998

House Chamber, Lansing, Tuesday, February 17, 1998.

2:00 p.m.

The House was called to order by the Speaker.

The roll was called by the Clerk of the House of Representatives, who announced that a quorum was present.

Reps. Alley, Middaugh, Callahan, Schermesser, Birkholz, Wetters, Kilpatrick, Bodem, Walberg, DeVuyt, By, McNutt, Sikkema, Dalman, Mans and Perricone offered the following concurrent resolution:

House Concurrent Resolution No. 87.

A concurrent resolution to urge the Environmental Protection Agency to revise its timetable for proposed rule making on ozone transport to provide opportunities for refined modeling to identify both beneficial and adverse impacts on air quality in upwind areas from emissions controls intended to benefit downwind areas.

Whereas, On November 7, 1997, the Environmental Protection Agency (EPA) released a proposed rule calling on twenty-two states to revise their State Implementation Plans to address ozone transport and meet specific limits on emissions. The limits will require equal levels of control in the twenty-two states, ignoring studies showing that these twenty-two states have different impacts on downwind sites; and

Whereas, Michigan recognizes the challenges presented by transported pollutants. This is a problem that has been especially vexing to the western portions of our Lower Peninsula. Michigan also believes that, due to variables in climate, topography, and atmospheric chemistry, the extent to which transport causes any given area's ozone problems can be quite different from one locale to another; and

Whereas, All upwind areas do not contribute equally to poor air quality in downwind areas; and

Whereas, EPA relied on different emissions inventories and modeling assumptions than those used by the Ozone Transport Assessment Group (OTAG) in reaching their recommendations after two years of study. The EPA disregarded OTAG recommendations calling for the states to conduct additional local and subregional modeling over a twelve-month period. This modeling is essential to better understanding "disbenefits" on upwind areas of some emissions controls compared to the minimal benefits to downwind areas of those same controls; and

Whereas, Other differences between the OTAG recommendations and the EPA's proposed call for State Implementation Plan revisions include OTAG's recommendations for a wider range of controls, variability for geographic areas, using a one-hour rather than an eight-hour standard, and using an emissions base of 1990 instead of 1995; and

Whereas, Given the disagreement over the timetable and means of addressing the transport of ozone, it is prudent to reconsider our response and the expectations and requirements placed upon the states; now, therefore, be it

Resolved by the House of Representatives (the Senate concurring), That we urge the Environmental Protection Agency to reconsider its timetable for proposed revisions to State Implementation Plans and to work with other states and groups of states to determine more appropriate modeling to identify the impact of emissions controls at upwind sources on local air quality in downwind locales; and be it further

Resolved, That we urge that the EPA's final action be based on consideration of all of the following:

1. Michigan's proportional contribution to a specifically identified problem in another state,
2. The ozone benefits and disbenefits that would result from reducing emissions in Michigan, and
3. The comparative cost of achieving those ozone reductions from controlling emissions in Michigan versus controlling emissions in the downwind states and nearby states

; and be it further

Resolved, That copies of this resolution be transmitted to the United States Environmental Protection Agency, to the members of the Michigan congressional delegation, and to the office of the President of the United States.

The concurrent resolution was referred to the Committee on Conservation, Environment and Recreation.

STATE OF MICHIGAN



MICHIGAN LEGISLATURE

House Concurrent Resolution No. 70

Offered by Representatives Alley, Mickaugh, LeTarte, Sildrema, Griffin, Rhead, London, Richner, Birkholz, Kelly, Schormesser, Kipatrick, Palamara, Wolfberg, Thomas, Callahan, McManus, Varga, Wetters, Mans, Geiger, Wojno and Bodem and Senator Schwarz

A CONCURRENT RESOLUTION TO URGE THE PRESIDENT OF THE UNITED STATES TO REJECT ANY AGREEMENT ON LIMITING GREENHOUSE GAS EMISSIONS THAT APPLY RESTRICTIONS ONLY TO DEVELOPED NATIONS AND EXEMPT OTHER NATIONS

WHEREAS, The United States government is involved in United Nations negotiations aimed at reducing greenhouse gas emissions in the post-2000 period; and

WHEREAS, These negotiations are expected to culminate in an agreement by the end of 1997, which will legally bind the United States to reduce energy usage; and

WHEREAS, The "Berlin Mandate Decision" already specifically exempts all developing countries from emission reduction requirements, which will preclude meaningful progress worldwide to stabilize carbon dioxide concentrations; and

WHEREAS, The United Nations negotiating parties made a fundamental error when they agreed to negotiate legally binding carbon restrictions on the United States and other industrialized countries but agreed to exempt high-growth developing countries like China, Mexico, Brazil, and Korea from any new carbon reduction commitments; and

WHEREAS, As much as 60 percent of global carbon emissions are expected to come from developing countries in the next few decades; and

WHEREAS, The exclusion of new commitments by developing nations will create a powerful incentive to export jobs and capital from the United States, shift greenhouse gas emissions to other countries, and do little or nothing to stabilize atmospheric concentrations of carbon; and

WHEREAS, Such an uneven playing field will cause the loss of high-paying United States jobs in mining, manufacturing, energy, transport, and other sectors; and

WHEREAS, Programs to limit greenhouse gases may have the effect of raising energy costs; and

WHEREAS, The United States government has not completed a thorough economic analysis of the effects of a treaty on the United States economy, even though United States negotiators have been at the bargaining table for over eighteen months and have agreed to a December 1997 deadline for finalizing this far-reaching treaty or protocol; now, therefore, be it

RESOLVED BY THE HOUSE OF REPRESENTATIVES (the Senate concurring), That we urge the President of the United States to reject any agreement, in Kyoto in December 1997 or later, on limiting greenhouse gas emissions that apply restrictions only to developed nations and exempt other nations, or that adversely affect the people, prosperity, or employment stability of the United States or any region or sector; and be it further

RESOLVED, That a copy of this resolution be transmitted to the office of the President of the United States and the members of the Michigan congressional delegation.

Adopted by the House of Representatives, October 29, 1997

Adopted by the Senate, November 13, 1997

Carol Moray Viventi

Secretary of the Senate

Tom Alley

Clerk of the House of Representatives



STATE OF MICHIGAN



HOUSE OF REPRESENTATIVES

House Resolution No. 214

Offered by Representatives Alley, Middaugh, Callahan, Schemmesser, Birkholz,
Wetters, Kipatruck, Bodem, Walberg, DeVuyst, McKul, Siskama, Oakman, Mare and Pericone

**A RESOLUTION TO URGE THE ENVIRONMENTAL PROTECTION AGENCY
TO REVISE ITS TIMETABLE FOR PROPOSED RULE MAKING ON OZONE TRANSPORT
TO PROVIDE OPPORTUNITIES FOR REFINED MODELING TO IDENTIFY BOTH BENEFICIAL AND ADVERSE IMPACTS
ON AIR QUALITY IN UPWIND AREAS FROM EMISSIONS CONTROLS INTENDED TO BENEFIT DOWNWIND AREAS**

WHEREAS, On November 7, 1997, the Environmental Protection Agency (EPA) released a proposed rule calling on twenty-two states to revise their State Implementation Plans to address ozone transport and meet specific limits on emissions. The limits will require equal levels of control in the twenty-two states, ignoring studies showing that these twenty-two states have different impacts on downwind sites; and

WHEREAS, Michigan recognizes the challenges presented by transported pollutants. This is a problem that has been especially vexing in the western portions of our Lower Peninsula. Michigan also believes that, due to variables in climate, topography, and atmospheric chemistry, the extent to which transport causes any given area's ozone problems can be quite different from one locale to another; and

WHEREAS, All upwind areas do not contribute equally to poor air quality in downwind areas; and

WHEREAS, EPA relied on different emissions inventories and modeling assumptions than those used by the Ozone Transport Assessment Group (OTAG) in reaching their recommendations after two years of study. The EPA disregarded OTAG recommendations calling for the states to conduct additional local and subregional modeling over a twelve-month period. This modeling is essential to better understanding "disbenefits" on upwind areas of some emissions controls compared to the minimal benefits to downwind areas of those same controls; and

WHEREAS, Other differences between the OTAG recommendations and the EPA's proposed call for State Implementation Plan revisions include OTAG's recommendations for a wider range of controls, variability for geographic areas, using a one-hour rather than an eight-hour standard, and using an emissions base of 1990 instead of 1995; and

WHEREAS, Given the disagreement over the timetable and means of addressing the transport of ozone, it is prudent to reconsider our response and the expectations and requirements placed upon the states; now, therefore, be it

RESOLVED BY THE HOUSE OF REPRESENTATIVES, That we urge the Environmental Protection Agency to reconsider its timetable for proposed revisions to State Implementation Plans and to work with other states and groups of states to assess the compatibility of measures to address transport and local air quality in an integrated manner; and be it further

RESOLVED, That we urge that the EPA's final action be based on consideration of all of the following:

1. Michigan's proportional contribution to a specifically identified problem in other states,
2. The ozone benefits and disbenefits that would result from reducing emissions in Michigan and upwind states,
3. The comparative cost of achieving those ozone reductions from controlling emissions in Michigan versus controlling emissions in the downwind states and nearby states, and
4. An assessment using appropriate modeling

; and be it further

RESOLVED, That copies of this resolution be transmitted to the United States Environmental Protection Agency, to the members of the Michigan congressional delegation, and to the office of the President of the United States.

Adopted by the House of Representatives, March 4, 1998


Clk. of the House of Representatives



**STATEMENT OF CONGRESSMAN BOB WISE OF WEST VIRGINIA
BEFORE
THE HOUSE GOVERNMENT REFORM AND OVERSIGHT
SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH, NATURAL
RESOURCES AND REGULATORY AFFAIRS**

"CLEAN AIR COMMON SENSE ACT"

APRIL 23, 1998

Mr. Chairman, Members of the Subcommittee, I want to thank you for the opportunity to testify before you today about global warming and how it is affecting America.

Global warming is an phenomenon which influences all American's lives both directly and indirectly. It is the rise in the earth's average climate temperature due to the build-up of greenhouse gases in the atmosphere. It is argued that in the future rising levels of greenhouse gases could pose serious threats like flooding, drought and disease.

Indeed, the earth's atmosphere today is not the same as it was 100 years ago. The world climate is changing and the United States must do its part to control its emission of greenhouse gases. But we must approach this in a sound and rational manner. That is why I have introduced legislation which addresses one of the contributors to greenhouse gases, Nitrogen Oxide (NOx).

Mr. Chairman, Members of the Subcommittee, as you know, the Environmental Protection Agency (EPA) is one of the major government agencies whose mission is to help protect American citizens and interests from environmental dangers. Recently, the EPA proposed a plan to reduce the amount of NOx that the United States releases. I commend the EPA for "stepping up to bat" and taking the initiative to propose such an action. However, I **strongly disagree** with the way in which the EPA intends to reach its goal of NOx emission reduction.

The EPA has decided to target my state, West Virginia, and 21 other states and the District of Columbia as predominant sources of NOx emissions. Additionally, the EPA is claiming that we are the reason many Northeast states can't reach current emissions compliance levels. The EPA's proposal would require West Virginia to reduce NOx emissions by an additional 44 percent from

reductions already mandated by law. West Virginia would be the single hardest-hit state by the proposal if it is put in place as written. One estimate says that my state could lose more than 11,400 manufacturing jobs. Other states face the prospect of similar consequences.

In reaching its proposals, the EPA ignored recommendations by the Ozone Transport Assessment Group (OTAG) -- a partnership between the EPA, the Environmental Council of the States and various industry and environmental groups. Endorsed by the EPA, OTAG was convened to study how NOx and other chemicals that affect ozone in the United States travel from one place to another. It found that NOx emissions only affect locations within a 150 mile radius of their source. The group said that a community's air quality is not affected by emissions from locations 500 miles or more away. Translation: emissions from West Virginia, the mid-west or the south do not affect air quality in Hartford, Connecticut, 527 miles away, in Portland, Maine, 691 miles away or in Boston, Massachusetts, 621 miles away.

My legislation, would require the EPA to rewrite its proposed changes in air quality standards, **not** eliminate them. It seeks to balance the security of West Virginia and other state's jobs with a continued clean environment. My bill

requires the EPA to give the states one year to develop new modeling and collect further data to share with the EPA. This is consistent with the EPA's June 1997 promise that the states participating in OTAG would have up to 12 months to conduct their own modeling and provide comments to EPA. Lastly, my bill will set the compliance date five years after the final rule is promulgated. This to is consistent with EPA's proposed compliance deadline.

Mr. Chairman, Members of the Subcommittee, I am not opposed to emissions reductions. There is a global climate change taking place and we need to reduce emissions in this country and around the world. Much needs to be done to reduce the effects of global warming. However, we need to be cautious when determining the sources of global warming and placing blame. The greatest tragedy would be if we did all that the EPA is currently asking and after all the job losses, the air in the northeast states was no cleaner than it is today. We need a common-sense approach to reducing emissions and greenhouse gases that are based on science -- not speculation.

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NEWS FROM



CONGRESSMAN GEORGE MILLER

7th District, Calif. Committee on Resources.
Committee on Education and the Workforce.
2205 Rayburn Building, Washington, D.C. 20515

Statement of the Honorable George Miller (D-California) Senior Democrat, House Resources Committee

Hearing on Global Warming

Government Oversight Subcommittee on National Economic Growth,
Natural Resources and Regulatory Affairs
April 23, 1998

Mr. Chairman and Mr. Tierney, thank you for the opportunity to testify today on U.S. efforts to slow global warming.

Along with other Members on today's panel, I had the privilege to be in Kyoto with Chairman Sensenbrenner for the global warming negotiations and I witnessed the U.S. delegation's diligence in forging a treaty that both protects U.S. interests and at the same time sets important goals for slowing global warming.

I believe the United States has the authority and the obligation to lead the way in curbing what is probably the greatest threat to our environment, health and economy -- global warming.

"The truth is, steps necessary to curb global warming present an enormous economic opportunity for the people of the United States."

And the world is looking for U.S. leadership on this issue. While clearly the solution must include participation from developed *and* developing nations, there is much the United States has done and can still do to reduce greenhouse gas emissions that cause global warming -- emissions that cause immediate health effects on our children and the elderly, that contaminate our water, air and land, and that cost taxpayers dearly to clean up.

The truth is, steps necessary to curb global warming present an enormous economic opportunity for the people of the United States.

The scientific evidence about global warming compels strong action, not a head-in-the-sand approach that characterizes the organized opposition to the Kyoto protocol and U.S. energy efficiency measures.

Regrettably, opponents of the Kyoto protocol — the same political interests that have opposed most

(more)

significant environmental legislation this century -- are not only opposing the global warming treaty but also important existing and new Administration policy initiatives to cut greenhouse gases. These interests oppose President Clinton's measures to use federal tax dollars to spur public and private research and development in energy efficiency as a key step to slowing global warming.

They argue that any action that reduces greenhouse gases should be opposed because it is really a backdoor attempt to implement the Kyoto protocol. The critics of Kyoto may "charge" the President with trying to reduce greenhouse gases, but the real crime would be in stopping America from acting in its own self-interest by making our economy even more efficient while protecting our health and the environment.

"The critics of Kyoto may 'charge' the President with trying to reduce greenhouse gases, but the real crime would be in stopping America from acting in its own self-interest."

The American people overwhelmingly support actions to curb global warming. In my congressional district, slowing the warming of Earth is considered very important. In fact, 71 percent of my constituents recently answered in a questionnaire that they thought the U.S. should take strong steps against global warming even if it costs taxpayers more in the beginning to do so.

In January, Ohio State University conducted a national survey on American Public Opinion on Global Warming, finding that 77% of Americans believed that global warming has been happening, 67% believe steps should be taken to combat global warming and that reducing air pollution will be an effective way to do so. 88% thought that the US government should limit air pollution from businesses, and 77% said they were willing to pay more for electricity, gas and oil to reduce the amount of air pollution.

I am deeply concerned about opposition to steps that will make us more energy efficient. After all, that is the end result of most efforts to combat global warming.

"*Efficiency*" has been the drumbeat of this century, and it is astounding what American ingenuity has achieved. We are always trying to do more with less.

Thanks to American ingenuity we have fiber optic cables that can carry 600,000 simultaneous calls from Asia to Europe.

The U.S. space program invested tens, probably hundreds of millions of dollars in increasing computing power and miniaturization technologies. According to Lucent Technology, the first computer had 18,000 vacuum tubes, took up 1,800 square feet, and weighed 30 tons. Today, that same amount of technology exists in your wristwatch.

Refrigerators today use on average only one-third the energy they did just fifteen years ago because of improvements in compressors.

Investments in biotechnology have led to breakthroughs that now allow us to produce insulin and other bio-pharmaceuticals orders of magnitude faster and cheaper than ever before.

(more)

And we are already working on a new Internet that will would operate up to a thousand times faster than today's does.

I'm sure that critics of the Kyoto protocol support these innovations. And why not? They have meant thousands more jobs and more money into the economy.

But when it comes to raw energy, the global warming critics do not want efficiency.

Efficiency represents positive change. The opposite of efficiency is waste. And while this change will mean a shift from the energy sector to the technology sector, it brings with it far more jobs than would be lost, and it will produce real savings to the average consumer.

"How much of this new global market will be controlled by American companies if Congress cuts back on investments in energy efficiency programs?"

The evidence of the benefits of energy efficiency are overwhelming. Numerous studies suggest that a substantial portion of the reductions necessary to meet the Kyoto protocol can be achieved through energy efficiency measures. We should embrace that opportunity.

The global market for energy efficiency products and services is \$80 billion per year and is expected to reach \$125 billion a year by the year 2015. Several studies estimate that job growth from energy efficiency and technology innovation will exceed 800,000 new jobs over the next 15 years.

How much of this new global market will be controlled by American companies if Congress cuts back on investments in energy efficiency programs?

Later today, you will hear testimony from the Wisconsin Bureau of Air Quality on how its efforts to reduce carbon emissions will create thousands of jobs and increase state residents' incomes. A Denver-based energy management executive will testify that home and building energy efficiency steps provide stunning 20 percent to 26 percent returns on investment.

The reality is that many of the states with the toughest environmental laws, including my state of California, are also those with the strongest economies.

It should not be a point of pride to preserve our per capita energy usage, which is the highest in the world here in the United States. The fact is, while the price of oil and gas are at historic lows today, energy is expensive and its production and usage are frequently harmful to our health and the environment. All levels of government and the private sector spend billions cleaning up pollution and dealing with human health impacts directly or indirectly associated with our dependence on fossil fuels.

It is irrational to object to spending money now to reduce our usage when we can derive the same benefits using less energy. This kind of investment has always more than paid for itself in the past and there is no reason to think that it won't continue to do so in the future. But the critics of Kyoto are using global warming as an excuse to fight cars with higher gas mileage, renewable energy development, and energy efficiency.

Let's remember that it is the same corporate interests that have opposed nearly every energy efficiency and environmental protection effort this century that have aligned to fight these new efforts. They are, frankly, Luddites. And they should not be allowed to slow the progress we are making toward a healthier, more efficient, and more sustainable economy.

On a positive note, I am pleased to see that at least one major corporation, Shell Oil, USA, recently announced it was dropping out of the corporate coalition fighting the Kyoto protocol.

And while today's hearing is intended to cause Americans to fear the costs of fighting global warming, you will hear from witnesses today about the serious costs of inaction.

The worldwide spread of infectious disease, a rise in sea level, more drought and more floods. Worldwide agricultural catastrophe. More mud slides like those in California, or heat wave deaths like those in Chicago.

“Contributions from the oil, coal and auto industries will keep Congress frozen in time, while the earth heats up.”

Instead of pretending the scientists are all wrong, and instead of hiding from the reality that we need to seek energy alternatives and increase efficiency because of the real threat of global warming and the real costs of energy, let's view this as an economic opportunity and technological challenge.

This type of challenge has always brought out the best in America. We have the world's cutting-edge environmental technology and there's plenty more innovation where that came from. The world is moving forward on greenhouse gas emissions reduction with or without U.S. participation, so let's get in the business of selling the technology needed to do it.

For those that complain of the cost, there are numerous examples in our history of large investments in technology that have paid us back in spades.

If we do not continue to support the Administration's greenhouse gas reduction program and work to seek meaningful participation of all parties in the Kyoto protocol, then the alternative is inaction because of the politics.

Contributions from the oil, coal and auto industries will keep Congress frozen in time, while the earth heats up.

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**TESTIMONY OF THE HON. FRANK PALLONE, JR.
BEFORE THE HOUSE COMMITTEE ON
GOVERNMENT REFORM AND OVERSIGHT**

APRIL 23, 1998

**MR. CHAIRMAN, I APPRECIATE THE OPPORTUNITY TO TESTIFY
BEFORE YOUR COMMITTEE TODAY.**

**FOR YEARS, I HAVE HEARD MANY MEMBERS OF THIS BODY
AND ELSEWHERE ADOPT A "GLOOM AND DOOM" ATTITUDE ABOUT
THE ECONOMIC DISASTER THAT WILL BEFALL US IF WE IMPLEMENT
ENVIRONMENTAL SAFEGUARDS. HOWEVER, NOT ONLY HAVE WE
NOT SUFFERED ECONOMICALLY FROM WORKING TO PROTECT OUR
ENVIRONMENT, BUT WE HAVE EXPERIENCED AND CONTINUE TO
EXPERIENCE SIGNIFICANT ECONOMIC GROWTH.**

**IT IS APPROPRIATE TO BE SPEAKING ABOUT ENVIRONMENTAL
STEWARDSHIP ON THE DAY AFTER EARTH DAY 1998;
UNFORTUNATELY, THE PREMISE OF THIS HEARING OBVIOUSLY RUNS
CONTRARY TO A TRIBUTE TO EARTH DAY AND THE GLOBAL
RECOGNITION THAT ENVIRONMENTAL PROTECTION IS CRITICAL. I
WAS VERY DISTURBED TO LEARN THAT SOME KEY PROPONENTS OF
THE KYOTO PROTOCOL FROM THE STATE DEPARTMENT AND OTHER
AGENCIES WERE NOT INVITED TO PARTICIPATE IN THIS HEARING.
THESE EXPERTS WOULD HAVE BEEN ABLE TO HELP THIS COMMITTEE**

ANALYZE THESE IMPORTANT ISSUES MORE COMPLETELY AND ACCURATELY.

SEVERAL REPUBLICAN REPRESENTATIVES YESTERDAY EVEN RECOGNIZED EARTH DAY AND THE IMPORTANCE OF ENVIRONMENTAL PROTECTION ON THE HOUSE FLOOR. WE HAVE A RESPONSIBILITY TO PROTECT OUR NATURAL RESOURCES AND MAINTAIN THE BIODIVERSITY OF OUR ECOSYSTEMS FOR THE CURRENT GENERATION AND FOR OUR CHILDREN. I, FOR ONE, HAVE THREE CHILDREN UNDER THE AGE OF FIVE AND HAVE BEEN INVOLVED IN ENVIRONMENTAL PROTECTION, ESPECIALLY COASTAL STEWARDSHIP EFFORTS FOR YEARS, HAVING GROWN UP NEAR THE NEW JERSEY COAST. MITIGATION OF GLOBAL CLIMATE CHANGE IS ALSO OUR RESPONSIBILITY FOR OUR GENERATION AND FOR OUR CHILDREN. FURTHER, THE SCIENCE IS PRETTY CLEAR THAT HUMAN ACTIVITY IS AFFECTING OUR GLOBAL CLIMATE. TO WHAT EXTENT, WE'RE NOT SURE. BUT ENOUGH TO WARRANT PRACTICAL ACTIONS NOW. REGRETTABLY, THE POLICY DEVELOPMENT IS FAR BEHIND THE SCIENTIFIC EVIDENCE ON GLOBAL CLIMATE CHANGE. I LOOK FORWARD TO WORKING CONSTRUCTIVELY WITH THE ADMINISTRATION AND MEMBERS OF CONGRESS THROUGH THE APPROPRIATE CHANNELS IN THE COMING MONTHS ON THESE ISSUES.

DURING THE PAST QUARTER CENTURY, PEOPLE COMPLAINED OFF AND ON ABOUT THE HARDSHIPS THAT ENVIRONMENTAL REGULATION AND PROTECTION WOULD CAUSE. THESE SAME PEOPLE ARE COMPLAINING ABOUT THE POTENTIAL NEGATIVE ECONOMIC IMPACTS THAT MIGHT OCCUR IF WE WORK TO SLOW THE RATE OF GLOBAL CLIMATE CHANGE. BUT ADDRESSING CLIMATE CHANGE CAN BE VIEWED JUST AS EASILY IN A POSITIVE LIGHT. IT PROVIDES AN OPPORTUNITY FOR ECONOMIC GROWTH, TECHNOLOGICAL INNOVATION, JOB CREATION, AND IMPROVING OUR NATION'S EFFICIENCY. ACTIONS NOW ALSO COULD PREVENT LARGER ECONOMIC LOSSES IN THE FUTURE.

MITIGATING GLOBAL CLIMATE CHANGE WILL INVOLVE INCREASING THE EFFICIENCY OF OUR TRANSPORTATION, UTILITY, BUILDING AND INDUSTRIAL SECTORS. EFFICIENCY SAVES ENERGY AND MONEY WHILE SIMULTANEOUSLY REDUCING GREENHOUSE GAS EMISSIONS. IN OTHER WORDS, EFFICIENCY MEASURES PROVIDE A WIN-WIN SITUATION FOR EVERYONE. ACCORDING TO ENERGY EXPERT, AMORY LOVINS, THE U.S. HAS ACHIEVED ONLY ABOUT 2% OF ITS POTENTIAL IN ENERGY EFFICIENCY, AND WE WASTE NEARLY \$300 BILLION IN ENERGY EVERY YEAR -- MORE THAN THE DEFENSE BUDGET AND FEDERAL DEFICIT COMBINED.

YESTERDAY, IN A TRIBUTE TO EARTH DAY, TOYOTA MOTOR SALES, U.S.A., ANNOUNCED THAT IT WILL SOON BECOME THE LARGEST SINGLE USER WORLDWIDE OF 100% RENEWABLE POWER AS AN INVESTMENT IN THE ENVIRONMENT. THE COMPANY ESTIMATES AN ANNUAL USAGE OF 38 MILLION KILOWATT HOURS IN RENEWABLE ENERGY, WHICH DEMONSTRATES ITS LEADERSHIP IN CLEAN AIR INITIATIVES.

PREVENTION AND MITIGATION MEASURES WILL HELP PRESERVE THE HEALTH OF OUR ENVIRONMENT FOR FUTURE GENERATIONS AND REDUCE THE NEED FOR POTENTIALLY MORE SEVERE ACTIONS AND MORE SUBSTANTIAL LOSSES AT A LATER DATE IF WE DO NOT ACT NOW. SECRETARY OF STATE MADELEINE ALBRIGHT MADE A SIMILAR STATEMENT IN AN EARTH DAY ADDRESS EARLIER THIS WEEK. SHE SPOKE OF THE RESPONSIBILITY AND RESPECT WE NEED TO DEMONSTRATE TO OURSELVES, THOSE IN OTHER COUNTRIES, AND FUTURE GENERATIONS BY PROTECTING OUR RESOURCES AND OUR GLOBAL CLIMATE.

FORTUNATELY, MANY U.S. COMPANIES ARE RECOGNIZING THE FINANCIAL BENEFITS OF OPERATING IN AN ENVIRONMENTALLY SUSTAINABLE MANNER. FIRMS ARE USING THE INNOVATION THAT HAS EVOLVED IN OUR COUNTRY OVER MANY DECADES TO DEVELOP

AND EXPORT MORE EFFICIENT AND ALTERNATIVE ENERGY TECHNOLOGIES. IN FACT, MANY COMPANIES ARE EXPRESSING THE DESIRE TO BE INDUSTRY LEADERS AS THESE CHANGES EVOLVE. IN NEW JERSEY, ONE GROUP OF COMPANIES HAS IMPLEMENTED ENERGY EFFICIENCY PROJECTS THAT ALREADY HAVE RESULTED IN NEARLY \$20 MILLION IN SAVINGS AS WELL AS A REDUCTION IN CO2 EMISSIONS BY AN ESTIMATED 23,000 TONS, SULFUR DIOXIDE BY TWO TONS AND NOX BY MORE THAN 120,000 POUNDS.

FURTHER, IF WE DO NOT CONTINUE TO DEVELOP ENERGY EFFICIENT AND RENEWABLE ENERGY TECHNOLOGIES, AND EXPORT THESE TECHNOLOGIES, WE WILL LOSE OUR COMPETITIVE EDGE IN THESE MARKETS. MANY OTHER NATIONS RECOGNIZE THE VALUE AND NEED FOR SUCH TECHNOLOGIES, AND ARE EXPORTING TO DEVELOPING NATIONS AS WE SPEAK.

FOR THE ABOVE REASONS, I AM DISTURBED TO LEARN THAT MANY MEMBERS ARE SPEAKING OUT AGAINST THE PRESIDENT'S CLIMATE CHANGE TECHNOLOGY INITIATIVE. THIS INITIATIVE ENCOMPASSES MANY VALUABLE PROGRAMS, MOST OF WHICH ARE NOT NEW. MANY OF THESE VOLUNTARY PUBLIC-PRIVATE PARTNERSHIPS, SUCH AS THE ENERGY STAR PROGRAMS, HAVE EXISTED FOR SEVERAL YEARS AND HAVE FOSTERED INNOVATION AND RESULTED IN SAVINGS TO INDUSTRY AND CONSUMERS IN

ENERGY, MONEY, AND REDUCTIONS IN GREENHOUSE GAS EMISSIONS. THUS, I WOULD URGE SUPPORT FOR BOTH R&D FUNDING AND TAX CREDITS TO DEVELOP AND IMPLEMENT ENERGY EFFICIENCY MEASURES, THAT SAVE BOTH ENERGY AND MONEY, PROMOTE TECHNOLOGICAL DEVELOPMENT FOR DOMESTIC AND INTERNATIONAL USE, AND REDUCE GREENHOUSE GAS EMISSIONS.

AS I BRIEFLY MENTIONED, WE ARE LIKELY ALREADY EXPERIENCING THE EFFECTS OF CLIMATE CHANGE, BECAUSE SMALL CHANGES IN MEAN TEMPERATURE CAN RESULT IN LARGER CHANGES IN SEVERE WEATHER EVENTS. DR. JAMES BAKER OF NOAA REITERATED THIS POINT JUST THIS WEEK. MORE SEVERE WEATHER EVENTS WILL MEAN THAT WE HAVE LESS TIME TO ADAPT, WHICH COULD RESULT IN SUBSTANTIAL SOCIOECONOMIC AND OTHER IMPACTS.

AND, INDUSTRY AND GOVERNMENT OFFICIALS OFTEN FAIL TO ACCOUNT FOR THE COSTS THE U.S. WOULD INCUR IF WE DID NOT ACT IN THE NEAR TERM TO MITIGATE AND PREVENT FURTHER BUILDUP OF GREENHOUSE GAS CONCENTRATIONS. COSTS MUST INCLUDE WEATHER-RELATED, HEALTH, AND SOCIOECONOMIC IMPACTS.

THE RESIDENTS OF NEW JERSEY'S SIXTH DISTRICT, MYSELF INCLUDED, HAVE EXPERIENCED THIS FIRST-HAND: PRECIPITATION

IN PARTS OF NEW JERSEY HAS INCREASED BY 5-10% OVER THE LAST CENTURY AND IS EXPECTED TO INCREASE. THE OCEANFRONT PROPERTY IN THE DISTRICT ALREADY HAS EXPERIENCED THE EFFECTS OF RECENT STORMS. FORTUNATELY, WE BENEFITED FROM AN ARMY CORPS BEACH REPLENISHMENT PROJECT THAT PREVENTED AND MITIGATED THE ADVERSE EFFECTS OF THESE STORMS. AS A RESULT, MY DISTRICT EXPERIENCED LESS DAMAGE. WHILE NEAR-TERM MEASURES WILL NOT ELIMINATE CLIMATE CHANGE IMPACTS, NOR THE COSTS THEREOF, THEY WILL MITIGATE THE POTENTIAL LONGER-TERM IMPACTS. HOWEVER, SEVERE WEATHER EVENTS THAT USED TO OCCUR OVER CENTURIES, NOW ARE OCCURRING OVER DECADES.

THE U.S. HAS AGREED TO A SEVEN PERCENT REDUCTION IN GREENHOUSE GAS EMISSIONS BELOW 1990 LEVELS, WHICH MAY NOT EVEN SUFFICIENTLY REDUCE THESE TYPES OF IMPACTS. MOREOVER, THE BURDEN ON OUR ECONOMY IS BEING REDUCED, BECAUSE CARBON SINKS (E.G., FORESTS) ARE BEING USED IN ACCOUNTING FOR THIS PERCENTAGE REDUCTION. A NUMBER OF FLEXIBLE MECHANISMS ALSO HAVE BEEN INCORPORATED INTO THE PROTOCOL, SUCH AS EMISSIONS TRADING, TO FACILITATE MEETING THIS TARGET.

I ALSO WOULD LIKE TO BRIEFLY ADDRESS THE DEVELOPING COUNTRY ISSUE. BOTH THE ADMINISTRATION AND CONGRESS CONCUR THAT MORE MEANINGFUL PARTICIPATION BY DEVELOPING COUNTRIES IS NECESSARY. THE KYOTO PROTOCOL WILL NOT BE SUBMITTED TO THE SENATE WITHOUT "MEANINGFUL PARTICIPATION" BY THESE NATIONS. TO STATE THAT THE KYOTO PROTOCOL DOES NOT CONTAIN ANY PROVISIONS FOR DEVELOPING COUNTRY PARTICIPATION IS SIMPLY NOT TRUE. THERE ARE PROVISIONS FOR DEVELOPING COUNTRIES TO DEVELOP NATIONAL EMISSION REDUCTION PLANS. THE CLEAN DEVELOPMENT MECHANISM ALSO IS DESIGNED TO INCORPORATE DEVELOPING COUNTRY PARTICIPATION.

WE SHOULD BOLSTER THESE OPPORTUNITIES. AND, EFFORTS AT OUR HIGHEST DIPLOMATIC LEVELS ARE UNDERWAY TO ACCOMPLISH THESE GOALS. HOWEVER, WE SHOULD NOT USE THIS AS AN EXCUSE FOR U.S. INACTION IN THE GLOBAL CLIMATE CHANGE ARENA. THE U.S., AS A WORLD LEADER, HAS SHOWN LEADERSHIP ON MANY ENVIRONMENTAL ISSUES IN THE PAST. IN KYOTO, 160 NATIONS AGREED TO COOPERATE TO REDUCE GLOBAL GREENHOUSE GAS EMISSIONS. ONLY THE U.S. CONGRESS IS PROTESTING PROACTIVE ATTEMPTS TO ACHIEVE THIS GOAL. AS THE NATION RESPONSIBLE FOR 22% OF GLOBAL EMISSIONS, FAILURE ON OUR

NATION'S PART TO ACT WOULD BE UNACCEPTABLE. IT WOULD SHOW A LACK OF LEADERSHIP, AND WOULD ABDICATE OUR RESPONSIBILITY FOR THE EFFORTS WE UNDERTOOK AT THE RIO SUMMIT TO REDUCE OUR GREENHOUSE GAS EMISSIONS IN ORDER TO STABILIZE GREENHOUSE GAS CONCENTRATIONS IN THE ATMOSPHERE.

I HOPE THIS COMMITTEE AND ALL OF CONGRESS WILL TAKE A MORE POSITIVE AND PROACTIVE APPROACH TOWARD THIS PROBLEM AS WE CONTINUE TO ADDRESS CLIMATE CHANGE IN BUENOS AIRES AND BEYOND.

**Written Testimony of Donald Crawford
Automobile Worker from Pendleton, Indiana**

**U.S. House of Representatives
Committee on Government Reform and Oversight
Subcommittee on National Economic Growth,
Natural Resources and Regulatory Affairs**

April 23, 1998

Mr. Chairman, and members of the subcommittee, my name is Don Crawford and I come here today representing myself, and to testify because of my concerns over the Global Climate Change Treaty that was recently negotiated in Kyoto, Japan. I work as a model-maker in the automotive parts division of Guide Lamp, a company that designs and manufactures automobile lighting for General Motors. I am also a member of the United Auto Workers union.

I have a wife and 3 children, and I live in Pendleton, Indiana. Pendleton is a small community whose economy is mostly based on agriculture and the auto industry.

After reviewing the projected changes the Global Warming Treaty will bring about in America, I feel this treaty could destroy many industries, but none more so than agriculture and the automobile industry.

The energy crisis of the seventies caused Anderson to be the unemployment capital of the United States. It devastated the factories and they will never recover. Delco Remy went from 16,000 employees in 1972, to 8,000 employees in 1980, then to 2,500 employees today. Guide Lamp, where I am employed, went from 4,500 employee in 1972, to 3,500 employees in 1980, down to 2,800 employees today.

Many of these jobs went overseas and to Mexico, because of treaties such as The Kyoto Protocol, which are unfair to American workers.

Another sad consequence of this trend, which is too often overlooked, is the loss of jobs for our young people. Before the energy crisis, young people in the Pendleton area were secure in staying in central Indiana because of good factory jobs. Today, the average age of factory workers in this

part of the country is 43. My own 3 children are moving out of Indiana because of the lack of decent job opportunities.

Because of higher fuel prices, many of the farmers in Indiana went deeply in debt to buy newer, more fuel efficient equipment. The farmers from my state just can't take another drastic regulatory hit and continue to stay in business.

Today we are being told we are not just citizens of the United States, but also citizens of the world. I can accept the thinking behind that, and as a citizen of the world, I am concerned about global pollution. This treaty just encourages us to export our fossil fuel emissions to Third World countries, along with our jobs. It does not make sense.

It is well-known that there are factories located north and south on the Rio Grande River, which are owned by the same company. The factory on the north side of the river must be clean, and has standards for pollution that are strictly enforced. The factory on the south side is filthy, and has loose pollution standards that are not enforced. All the Kyoto Protocol seems to do is encourage those companies to move their entire operation out of the U.S.

As a world citizen I am also concerned about our food supply. If the proposed pollution restrictions drive more of my farming neighbors out of business, who will feed the world. Can these emerging nations begin producing the tens of billions of bushels of grain the farmers in the Midwest grow for the world each year? Can they do it in a less polluting manner than we do?

I believe we need treaties that make all countries meet the same standards. The so-called emerging nations need to develop as non-polluters. The Kyoto

Protocol as written, encourages just the opposite.

Higher fuel prices; higher food costs; higher prices for all goods produced in the United States, will hit no one in our society harder than the young, the old and the poor. Fewer jobs opportunities caused by factories moving to countries not covered by this treaty, will hurt our young just coming into the work force. The elderly living on fixed incomes will be paying more for goods, food, energy and transportation. The poor will just have to do with less.

I want a pollution-free world for my children and their children, but what we need are treaties that cause all polluting nations to have the same standards. I don't see that happening with this treaty. I hope that it will not be adopted by our government in its current form.

I appreciate the fact that I could come here and be heard on this important issue. Also, I have not received any federal grants or contracts in the fiscal year 1998.

Mr. Chairman, and members of this subcommittee, I want to thank you for taking the time to hear my concerns regarding the Kyoto Protocol.

TESTIMONY
REPRESENTATIVE KEN CALVERT
SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH,
NATURAL RESOURCES, AND REGULATORY AFFAIRS
COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT
April 23, 1998

Mr. Chairman, thank you for inviting me to testify today and let me commend you for holding this timely hearing. At a time of unparalleled prosperity, the American people need to know if they should put the nation's economy at risk over a theory on what the world's climate will be 100 years from now.

By shedding light on the potential impact of the Kyoto Protocol on "real people," as you have ably described it, you can help pierce the "fog machine" set up by Vice President Gore and others on this issue.

At the outset, I should point out that the Energy and Environment Subcommittee, which I chair, has given strong bipartisan support to climate change research by the National Oceanic and Atmospheric Administration. This research has produced great advances in forecasting weather phenomena such as El Nino. No one should confuse skepticism about the Kyoto Protocol with support for long term climate change research.

As you know, our Subcommittee held three "Countdown to Kyoto" hearings before the December conference. I attended the conference as a member of the House delegation.

Following the conference, Science Committee Chairman Jim Sensenbrenner, who had led the delegation, held three "Road From Kyoto" hearings.

I would like to share with you a little of what we learned at those hearings, in particular as it bears on the topic before you today.

First, as to the science, it is clear there is no consensus on precisely how or if increases in greenhouse gas emissions will affect the world's climate.

Scientists continue to speak out despite severe pressure from the Administration to tow the line. For example, the Secretary of the Interior implied recently that any scientist who disagreed with him on global warming was "un-American."

Nevertheless, just two weeks ago, at the National Hurricane Conference in Virginia, Neil Frank, a familiar face from his days as Director of the National Hurricane Center in Miami, said that "climate change has nothing to do with carbon dioxide," that "the atmosphere is too complex and the computers too slow to make long-term climate forecasts."

Next, as to the economic effects. David Montgomery of Charles River Associates, a recognized expert on the economics of energy policy, told us he found the Administration claim that technologies will be deployed between now and 2010 that would reduce emissions sufficiently to meet the Kyoto mandate at no cost to be "extremely implausible."

We heard Michael Buckner of the United Mine Workers say that independent economic studies they commissioned from DRI/McGraw Hill and the Economic Policy Institute showed reductions in greenhouse gases of the magnitude called for in the Protocol would result in "lost jobs, lost wages, higher energy prices and higher trade deficits that would create a perverse economic incentive for American companies to relocate their operations abroad."

Dr. Jay Hakes, the Administrator of the Department of Energy's own Energy Information Administration, testified the Kyoto Protocol would require a 31 percent reduction in carbon emissions from what could be expected around 2010. In a remarkably candid statement for an Administration official, Dr. Hakes went on to say that "it is unlikely the adjustments can be achieved without a significant price mechanism" and that any price mechanism selected would "slow somewhat the rate of economic growth." Now, translating that into plain English, Hakes is saying that no matter how you look at it, implementing the Kyoto Protocol means higher energy prices that will hurt the economy.

Finally, let's look at the end result. Even if you accept the Gore "apocalypse" theory of global warming, and even if you believe that the threat is so serious it is worth sacrificing our hard-won prosperity to meet it, we have an agreement that won't work.

Again, just yesterday, the Energy Information Administration, in its 1998 International Energy Outlook, stated that "even if the parties to the Kyoto Protocol were able to achieve the proposed target reductions, worldwide emissions levels would continue to rise by 32 percent between 1990 and 2010."

The Protocol does not include some of the fastest-growing countries in the world, including China. Domestically, it excludes whole groups of emissions, including Defense Department equipment and aircraft, which we now know to be one of the biggest emitters of greenhouse gases.

So, Mr. Chairman, who will the burden fall on? Why, our constituents, of course. Yours in Muncie and mine in Riverside. It is the Administration's hope that resistance from the American people to imposing these burdens can be overcome by doomsday scenarios of apocalyptic floods and diseases and tactics designed to demonize the opposition.

So it is all the more important that hearings like this one continue to be held throughout the process and I look forward to learning more from the testimony today.

Again, thank you for the opportunity to appear here today.

"Kyoto Protocol: Is the Clinton-Gore Administration Selling out America"

Committee on Government Reform and Oversight
Subcommittee on National Economic Growth, Natural Resources, and
Regulatory Affairs

Statement by Representative Ralph M. Hall
April 23, 1998

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I am pleased to join with my colleagues today to again express my interest and concern about the Global Climate Change deliberations and specifically the economic impact of the Kyoto Protocol proposals.

Economic Concerns

In our society that has become so dependent on energy from fossil fuels, whether it be in the form of electricity or automobiles, mandated reductions in greenhouse gas emissions as proposed in Kyoto, could have devastating effects on our economy and our way of life. The estimates for the cost of the reductions range from a low of \$14-\$23 per ton of emissions, up to \$95 per ton. This could mean a price increase in the cost of gasoline by as much as 26 cents per gallon as well as a drastic increase in the cost of natural gas, coal, and electricity. As the President of the U.S. Chamber of Commerce Thomas Donohue said, "Economic chaos could ensue." This would be another layer of emission reductions on top of the Clean Air Act's mandated reductions that U.S. companies would be required to shoulder. There is a breaking point to this bull economy, and if we continue like this, we may reach that point. How we will pay for these reductions has yet to be laid out. Whether this will come in the form of higher taxes on gas and oil or higher electricity prices, we don't know, but that there will be a cost is unmistakable.

So much of this treaty is based on unknowns. There is still tremendous controversy within the scientific community as to whether or not human caused emissions of greenhouse gases are even affecting the climate. If the world's leading climatologists cannot agree on this issue, how can we blindly charge down a path that may destroy our economy? Obviously, we need to continue to support good scientific study on the issue as we move forward.

The other unknowns deal with how the administration will pay for these new research and tax incentive programs that it has outlined in the budget agreement. The funding is primarily based on our anticipated budget surpluses and tax changes which are yet to be agreed to by this Congress, and may not materialize.

If our reasoning for emission reductions are in doubt, and our funding for meeting those reductions is in doubt, something is amiss. The treaty sets forth, but does not define, International Emissions Trading, whereby a company or nation

could trade with another nation or company in order to meet its emission requirements. The treaty also allows for the Clean Development Mechanism, that allows companies to receive credit for development projects that reduce emissions in other countries. We are lead to believe that both of these programs could help tremendously in the implementation of the treaty, but we have no idea how these programs will function. Obviously, we need to know more about this developing initiative. Even so, many companies have already begun projects that would give them emission credits under a trading program or under the clean development program. For example, BP America has signed a deal with the government of Bolivia and the Nature Conservancy to protect 2.1 million acres of forest land, and Royal Dutch Shell will spend \$500 million over the next five years planting trees in New Zealand and Chile. They are to be commended for this futuristic commitment. Hopefully by this summer we will have a better idea as to how the trading and credit programs will operate under the treaty.

Ratification by the Senate

Currently the Administration has not said when or if it will submit the treaty for ratification to the Senate, but has repeatedly stated in hearings in the Subcommittee on Energy and Power that it will not submit the treaty unless it can gain meaningful participation by developing countries, and I urge the Administration to hold fast to this principle. The Secretary of State backed up that statement this week in her announcement of a "full court press" to achieve this participation, and that is indeed reassuring news. It is widely believed that there can be no progress in reducing emissions unless the developing nations agree to reduce their emissions as well.

Currently the developing nations account for only 27% of the world wide total of carbon emissions, while the developed world accounts for 73%. However, by 2035 the developing world will be responsible for 50% of carbon emissions, and the single largest contributor will be China. This means that when the necessity for reducing emissions is highest, the countries contributing the most to global carbon emissions, will be outside the realm of this treaty. Without the participation of countries like China, Brazil and India, this treaty is almost a useless and expensive exercise. Unfortunately, developing nations see mandatory reductions as a way in which the developed nations can hold back the economic development of the developing nations rather than a way to protect the global environment for our children. Gaining "meaningful participation" is a must before this treaty can even be considered viable, and this is something the Administration has committed to do at the next negotiations in Buenos Aires in November of this year. The President tried to drum up support for this at the Summit of the Americas in Santiago, Chile over the past few days, but we have not heard whether or not he was successful.

The current budget includes many proposals and programs that deal with climate change and emission reductions which are mainly focused on R&D. I commend the Administration for its focus on R&D, but I must say that it is imperative that we not by-pass the Senate on this issue. The Senate should have a chance to say yea or nay to the treaty before we seek to pass implementation legislation. This is not an anti-environmental position; it is not an anti-Administration position; it is a pro-Constitution and a pro-balanced budget amendment position. We have set up a system of checks and balances that must be followed, especially on an issue as contentious as the one before us now.

Our challenge is how we all move forward in addressing our global environmental issues while maintaining our strong and vibrant companies in America and abroad.

Thank you.

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Paul F. Weldon
CHIEF OF STAFF

April 23, 1998

TESTIMONY ON THE KYOTO CLIMATE CHANGE TREATY
BY
REPRESENTATIVE JOE KNOLLENBERG
BEFORE THE SUBCOMMITTEE ON NATIONAL ECONOMIC GROWTH,
NATURAL RESOURCES, AND REGULATORY AFFAIRS

Mr. Chairman, I appreciate having the opportunity to testify today about the UN treaty on climate change that was recently negotiated in Kyoto, Japan.

As a member of the congressional delegation that monitored the negotiations of this treaty last December, I was outraged by the final agreement.

This treaty is a terrible deal for the United States: As members of Congress, we have an obligation to ensure that its provisions are not implemented.

The Kyoto treaty requires the United States to reduce its emissions of greenhouse gases by 7% below 1990 levels by the years 2008-2012. To meet this stringent requirement, the United States would have to dramatically reduce its use of energy.

What does this mean to the average American? Simply put, if the Kyoto treaty is ratified by the U.S. Senate, the American people will see their standard of living decline.

The Wharton Econometric Forecasting Associates (WEFA); a well-respected economic firm, has estimated that the Kyoto treaty would result in Americans paying almost 50 cents more for a gallon of gasoline and 600 dollars more a year for household utilities. WEFA also estimates that this treaty could result in the United States losing over a million jobs a year over a 15-year period.

Mr. Chairman, the drastic impact the Kyoto treaty would have on the U.S. economy is reason enough to oppose this misguided treaty, but there are several other reasons.

Allow me to offer two of them:

First, the Kyoto treaty is unfair. This treaty exempts 132 of the world's 166 nations from making any reductions in their emissions of greenhouse gases. This is problematic because nations like China, India, Mexico, and Brazil, which are exempted from the treaty are projected to be the largest emitters of greenhouse gases in the next century.

Therefore, even if global warming was a problem that could be addressed by reducing the emissions of greenhouse gases, this treaty wouldn't get the job done.

Second, the scientific community is divided on the issue of whether or not the emissions of greenhouse gases are causing the earth's temperature to warm. Global warming is only a theory. It is not a fact.

Mr. Chairman, given the lack of sound science on this issue, I believe it would be foolish to inflict the severe economic pain this treaty would cause on the American people.

Fortunately, there is strong opposition to this treaty in the Senate. That said, I believe it's important to continue monitoring this issue. I am concerned that the Clinton Administration, lacking the votes to win ratification in the Senate, will attempt to accomplish the goals of the Kyoto treaty through regulatory fiat.

Congress must ensure that this doesn't happen. We have an obligation to protect the integrity of the legislative process and to defend the economic interests of our nation against the over-reaching UN treaty on climate change.

Mr. Chairman, thank you once again for allowing me to testify today. I look forward to working with you and the other members of the committee on this very important issue.

TO: JOE AUDY 5-6958

FR: MARTHA WOFFORD

10 PAGES

DEAR COLLEAGUE & TESTIMONY RE: WISCONSIN STUDY

SCOTT KLUG
Second District, Wisconsin

APR 30 1998

COMMERCE COMMITTEE

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TELECOMMUNICATIONS, TRADE,
AND CONSUMER PROTECTION

CHAIR,
REPUBLICAN TASK FORCE ON
PRIVATIZATION

Congress of the United States

House of Representatives

Washington, DC 20515-4902

April 30, 1998

Dear Colleague:

As you probably know, states are being asked to develop strategies to help reduce the amount of greenhouse gases that are emitted into the atmosphere. Wisconsin, like many other states, has played an active role in researching, developing and implementing mitigation strategies to reduce greenhouse gas emissions. Most of the research has focused on the direct costs and benefits of implementing these strategies, with little information for decision makers regarding how these strategies might affect the regional economy.

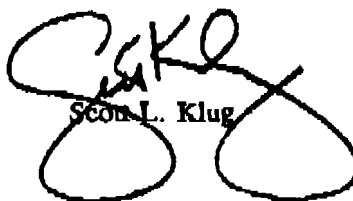
A team of individuals, including representatives from the Wisconsin Department of Natural Resources, the University of Wisconsin, the Consortium for Integrated Resource Planning, and the Leonardo Academy, under the auspices of the Department of Energy's Energy Fitness Program, collaborated in a study to determine regional effects. The study also identified low cost strategies for reducing greenhouse gas emissions in Wisconsin. It is intended to serve as the foundation for a Wisconsin Climate Change Action Plan.

Among other findings, the study concluded that:

- * Low cost measure are available to reduce greenhouse gas emissions.
- * Implementing emission reduction measures that are cost effective would reduce greenhouse gas emissions in 2010 by 24%, with net savings.
- * Implementing emission reduction measures costing up to \$30 per ton and would reduce greenhouse gas emissions in 2010 to approximately 1990 levels and could have an overall net cost of about zero.

I encourage you to take a look at the report, a copy of which can be obtained by calling Katherine Hahn in my office. If you have any questions or would like to discuss the results of the study, please contact Michael Army, director of the Leonardo Academy at (608) 255-0988.

Sincerely,



Scott L. Klug

PLEASE RESPOND TO:

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Climate Change and Wisconsin

**Testimony by Lloyd L. Eagan
Director, Bureau of Air Management
Wisconsin Department of Natural Resources
to the**

**House Subcommittee on National Economic Growth, Natural Resources and Regulatory
Affairs
April 23, 1998**

The Wisconsin Department of Natural Resources considers global climate change to be a potentially serious threat to the natural resources of Wisconsin with significant economic ramifications. In light of the duality of the nature of the Global Climate Change problem, it is particularly appropriate that it is being considered by this subcommittee which has responsibilities for both economic and natural resources concerns. I feel very privileged to have the opportunity to share some of the climate change work we have done in Wisconsin with you today. My testimony summarizes the work of four studies which we have completed in Wisconsin over the past six years. Because of the potential threat of climate change, we believe that greenhouse gas emissions in Wisconsin should be reduced through actions which have other significant economic and environmental benefits. This testimony summarizes how climate change could affect Wisconsin and highlights reduction measures the state is considering.

There are many potential negative impacts of climate change on Wisconsin. We identified potential impacts based on studies which assume that Wisconsin's average temperature will increase by several degrees over the next 50 to 100 years. These impacts may or may not occur, or may partially occur, depending on the extent of the warming and how the existing climate reacts to these changes.

Expected Impacts of Global Climate Change on Wisconsin's Weather

Wisconsin's climate under climate change is expected to generally be warmer and dryer. Precipitation may increase or decrease, but the warmer conditions and increased evaporation will lead to dryer conditions. We expect more heat waves and more frequent droughts. We expect that there will be less snow cover and that more precipitation will fall as rain during winter. Scientists expect to see more frequent severe storms than we presently get due to warmer conditions and more moisture in the air.

These changes in Wisconsin's weather and climate will, if they occur, significantly affect Wisconsin's environment and natural resources.

Potential Impacts on Wisconsin Water Resources

All of Wisconsin's water resources could be affected, including the great lakes - Superior and Michigan, our inland lakes, rivers and streams, and our groundwater. Under a global climate change scenario, we expect higher water temperatures, longer thermal stratification of lakes, including the great lakes, shorter ice cover duration, and lower water levels.

Scientists have estimated that water levels in the great lakes could decrease by several feet. This could affect great lakes shipping, and require significant expenditures for dredging and, in some cases, the rebuilding of port and docking facilities. If these environmental impacts occur, they would result in extremely negative economic impacts. In addition, lower water levels in lakes and streams could lead to increased concentrations of pollutants in the water and wastewater allocation problems. There could be less water available for irrigation and other uses, and wetlands could dry up or experience fluctuating water levels.

These changes in water resources, if they occur, would affect other natural resources. For instance, some fish would find it more difficult to live in Wisconsin's waters. Cold water species, such as trout, may be driven north and be replaced with warm water species.

Agricultural Impacts

Agriculture is one of Wisconsin's top three economic sectors. It supports \$790 million in agricultural economic activity in the state annually (Wisconsin Blue Book 97-98). Agriculture is very dependent on climate and weather patterns. If Wisconsin becomes warmer and dryer, agriculture could be significantly affected. Some crops would have difficulty dealing with dryer conditions and more frequent droughts. The crops traditionally grown in Wisconsin (such as corn and soybeans) may have to be replaced with more heat and drought resistant crops like wheat. Some scientists expect a post-globally-warmed Wisconsin to look more like Kansas. More irrigation may be necessary, if water is available. Livestock may be stressed by heat. Warmer winters could produce more insect pests, thus requiring increased use of pesticides. There may be increased runoff and soil erosion because of more frequent severe storms and more rain in winter. These storms could also cause flooding.

It is also possible that increased carbon dioxide concentrations in the atmosphere and a longer growing season could improve crop yields in Wisconsin. However, the dryer conditions, more frequent droughts, and heat waves could negate this potential benefit of climate change. Global warming could benefit agriculture in northern regions such as Canada and Russia, but is more likely to harm agriculture in Wisconsin.

Potential Effects of Climate Change on Wisconsin Ecosystems

Many plant species require fairly narrow temperature ranges for their survival. As a result of temperature and precipitation changes, some plant and animal species could experience population declines, or be forced to shift their ranges to adapt to climate change. One fear is

that some plant species may not be able to shift their ranges and move north fast enough to keep up with the climate change. These species could disappear. Endangered species may also be sensitive to climate change. The northern boreal forest may disappear from Wisconsin completely as it shifts its range northward.

The warmer and dryer conditions and the increased frequency of lightning storms could produce more forest fires and/or more severe forest fires. This in turn could increase the number of species that depend on fire for reproduction and decrease others.

Likely Air Quality and Human Impacts

Concentrations of ground level ozone and smog, which are very dependent on temperatures for their formation, could increase, making it difficult to attain mandated air quality standards. The warm and dry conditions could produce more airborne dust.

If they occur, these changes are likely to make it more difficult for Wisconsin to attain and maintain the new standards for ozone and fine particulates to prevent human health problems. Warmer conditions and increased heat waves could also cause increases in heat-related illness and increases in mosquito borne diseases such as malaria and dengue fever.

Potential Impacts on Recreation

The milder winters, lack of snow cover, and lack of ice cover expected to accompany climate change would reduce opportunities for skiing, snowmobiling, and ice fishing. Also, lower water levels in lakes and streams could affect boating and could require docks, piers, and boathouses to be rebuilt. All of these are currently major winter activities in Wisconsin and are important contributors to Wisconsin's \$6.7 billion dollar tourism industry (Personal Communication Wisconsin Department of Tourism - 4/98).

Evaluation of Climate Change Issues in Wisconsin

While we do not know the exact extent of the changes Wisconsin may face because of global climate change, the potential changes are substantial. We believe it is necessary to evaluate the issue to determine what we can do to protect our valuable natural resources. To meet this need, the Wisconsin Department of Natural Resources has conducted greenhouse gas studies for the past six years. We have completed four studies:

- An inventory of 1990 greenhouse gas emissions
- Projections of greenhouse gas emissions to 2000 and 2010
- The Wisconsin Greenhouse Gas Emission Reduction Cost Study, and
- A study of the impacts on Wisconsin's economy of investments in energy efficiency measures to reduce greenhouse gases.

Through these studies, we have determined that Wisconsin can significantly reduce its greenhouse gas emissions while saving money.

For example, through the use of end-use electric energy efficiency measures alone, Wisconsin can reduce greenhouse gas emissions by 8.4 million tons per year by 2010 while saving \$490 million through energy savings. The 8.4 million ton per year reduction represents about a 5% reduction of the projected 2010 emissions or about 23% of the emission reduction required to reduce 2010 emissions to 1990 levels. These measures would also create 8,500 jobs in 2010, increase disposable income by \$490 million and increase gross state product by \$41 million. So, in Wisconsin, we have found that reducing greenhouse gas emissions serves a double benefit; it is good for the environment and good for the economy.

Future Wisconsin Work on Climate Change

Currently, we are working with a group of stakeholders and other state agencies to develop a climate change action plan for Wisconsin. We acknowledge there is a fair level of uncertainty surrounding the issue of climate change and our group of internal and external stakeholders has insisted on developing a plan of action that takes uncertainty into account. As a result, Wisconsin's proposed climate change action plan is using a two phased approach.

The first phase focuses on greenhouse gas emission reduction measures which are voluntary and have zero net cost. These include primarily energy efficiency measures. The second phase will be developed later based on the evaluation of actions and measures undertaken in Phase 1, national and international policies on reducing greenhouse gas emissions, and technological, economic, and institutional developments.

As proposed, the first phase of Wisconsin's Climate Change Action Plan consists of seven main action areas:

1. Implement actions that will result in businesses, governments, and citizens adopting energy efficiency measures, with an emphasis on education and voluntary participation.
2. Implement actions that will result in businesses, governments and citizens adopting measures that will shift the mix of fuel sources toward a higher proportion of cleaner energy sources, with an emphasis on voluntary participation.
3. Adopt state policies which promote reductions of greenhouse gas emissions.
4. Implement measures which reduce emissions of other greenhouse gases.
5. Monitor, document, and evaluate Wisconsin's progress in reducing greenhouse gas emissions.

6. Participate in national policy formulation in a manner consistent with Wisconsin's long term needs.
7. Develop the next phase of the climate change action plan, using the experience gained in Phase 1.

The remainder of this testimony provides more detail on the first three actions contained in Phase One of Wisconsin's proposed Climate Change Action Plan.

The first major focus of the proposed action plan is to implement actions that will result in businesses, governments, and citizens adopting energy efficiency measures. We are looking at four different categories of actions to accomplish this.

- 1a. We are recommending that Wisconsin state government lead by example through purchasing energy efficient office equipment and installing energy efficient lighting in state office buildings, purchasing fuel efficient vehicles for the state fleet, offering incentives to reduce single occupancy vehicle driving by state employees, locating new state office buildings in areas served by mass transit, and other similar measures.
- 1b. We propose to vigorously promote private sector-led initiatives to adopt energy efficiency measures. To do this we propose establishing five task forces, one for each of the five greenhouse gas emitting sectors (residential, industrial, commercial/institutional, agricultural, and transportation). Task force members would be from key trade associations, environmental and other citizen groups, local governments and state agencies. Each task force would establish emission reduction goals and develop a strategy to maximize emission reductions through voluntary measures. Each task force would also establish a system for tracking progress toward their goals.
- 1c. Develop financial incentives to encourage the adoption of cost-effective energy efficiency measures, such as through a public benefits fund, and
- 1d. Revise or update state building codes to support energy efficiency improvements.

The second major focus of the proposed action plan is to implement actions that will result in businesses, governments, and individuals adopting measures that will shift the mix of energy sources toward a higher proportion of cleaner energy sources. This is proposed to be done through four actions which are very similar to the actions proposed for implementing energy efficiency measures.

- 2a. We propose that Wisconsin state government lead by example, this time through purchasing alternatively fueled vehicles, purchasing electricity generated from cleaner sources, and having state run heating and power plants use more renewable fuels.
- 2b. The state will vigorously promote private sector initiatives to move toward cleaner energy sources and technologies through energy sector task forces similar to the sector task forces

for energy efficiency presented under step one. These task forces will develop ways to generate and market cleaner energy.

- 2c. Develop financial incentives to increase renewable energy use, and
- 2d. Support research and development projects designed to reduce emissions per unit of energy generated.

The third major focus of the draft action plan is on the adoption of state policies which promote greenhouse gas emission reductions. Again, four action areas are proposed.

- 3a. Credit for early greenhouse gas emission reductions. Our industries have emphasized many times that they will not reduce greenhouse gas emissions at this time unless they are assured that they will receive credit for the reductions which will count toward any emission reductions mandated in the future. This is a critical point which will be one of the first items we will try to accomplish, because emission reductions will be difficult to get without it. We will work with U.S. EPA and others to ensure early credit and to develop an accepted emission reduction reporting and tracking system.
- 3b. Include energy efficiency as part of state strategies and plans for meeting emission reduction requirements for other pollutants. The U.S. EPA is requiring Wisconsin and other states to reduce NOx emissions in order to control ozone and smog formation. Since the major source of NOx and greenhouse gas emissions is fuel combustion, this is a tremendous opportunity to integrate NOx and greenhouse gas emission reduction efforts. Wisconsin, along with several other states, is participating on an EPA-led workgroup to develop guidance for states on how to include energy efficiency measures in NOx emission reduction plans. Wisconsin can achieve ten percent of the NOx emission reductions needed to meet the 2007 ozone season NOx budget through energy efficiency measures which will also reduce greenhouse gas emissions by 5% in 2010. This could also work for other air pollutants which are controlled or might be controlled in the future. This integrated approach to air pollution control could provide cost savings compared to the usual one-pollutant-at-a-time piecemeal approach.
- 3c. Incorporate greenhouse gas emission reduction and other air quality considerations in the decision making process regarding electric utility restructuring and deregulation. This falls within the economic and environmental interests of energy producers and their regulators.
- 3d. State government should enhance its assessment of the carbon emission impacts of major highway projects and overall transportation system proposals, and, wherever possible, the state should choose the alternative for a transportation project or plan which would produce the lowest carbon emissions. In Wisconsin, transportation was responsible for about 45 million tons of greenhouse gas emissions in 1990, or about one-third of those emissions. We need to explore ways to reduce greenhouse gas emissions from the transportation sector.

Conclusion

In conclusion, I would like to emphasize that through work done in Wisconsin on climate change, we have found an opportunity to significantly reduce greenhouse gas emissions while saving money and boosting our economy. In Wisconsin we believe we can:

- Reduce our greenhouse gas emissions in 2010 by 8.4 million tons through electricity end use energy efficiency measures alone. This represents about 23% of the amount needed to reduce Wisconsin's greenhouse gas emissions to 1990 levels. And, in the process of doing this, we can:
 - Save 10 million megawatt hours of electricity,
(10 million MWh is approximately the annual output of three 500 MW power plants and represents about 13% of projected electricity use in Wisconsin in 2010. It is enough power to run about 1.15 million households for one year.)
 - Create 8,500 jobs,
 - Increase gross state product by \$41 million, and
(Gross state product is the value of all goods and services produced in the state minus the value of imports and exports)
 - Increase real disposable income by \$490 million.

This can all be done through:

- voluntary measures rather than regulations which mandate emission reductions, and
- an integrated approach to reducing emissions. By implementing voluntary energy efficiency measures to reduce greenhouse gas emissions we can also reduce NOx emissions by about 7,000 tons per year in 2007, which is about 10% of the EPA-mandated NOx emission reductions.

Reducing greenhouse gas emissions through energy efficiency measures is good for the environment and good for Wisconsin's economy. I would encourage other parts of the country to seriously consider actions they can take to reduce greenhouse gas emissions and strengthen their economies at the same time. Thank you.

For more information on Global Climate Change Activities in Wisconsin, please contact any of the following individuals:

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FAX

To: Todd Stern/Jonathan 6-2215
Michele Jolin 5-6958
Bill Antholis 6-

From: Martha Wofford

Re: Wisconsin economic impact study

Total # of pages: 9

This is the executive summary of the study. Michele and anybody else that is interested we will get the full report to you. In addition, we have Congressional testimony re: the study by a Gubernatorial-appointed Wisconsin official. Apparently, Rep. Tom Barrett (D-WI) would welcome the opportunity to speak about his state's findings.



THE ECONOMIC AND GREENHOUSE GAS EMISSION IMPACTS OF ELECTRIC ENERGY EFFICIENCY INVESTMENTS A WISCONSIN CASE STUDY

**Prepared for
The Energy Fitness Program of the U.S. Department of Energy and
Oak Ridge National Laboratory**

by

Project Authors
Steve Clemmer, Stephen Olson, and Michael Arny

Project Manager
Michael Arny

The Consortium for Integrated Resource Planning
Engineering Professional Development
University of Wisconsin
The Wisconsin Department of Natural Resources
Leonardo Academy Inc.

February 1998





ENERGY FITNESS EXECUTIVE SUMMARY

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The international debate about the potential impacts of global climate change is increasingly moving beyond the science into the economics of emission reduction strategies and the policies that are needed to best mitigate potential impacts. The 1992 Rio Earth Summit initiated international efforts to reduce greenhouse gas emissions. As a result of the Rio Earth Summit, the United States Climate Change Action Plan was developed with the goal of reducing greenhouse gas (GHG) emissions to their 1990 levels by the year 2000. The 1997 Kyoto Conference on Climate Change has shifted the goals to reducing emissions 3 to 7 percent below 1990 levels in the 2010 time frame. Most climate change experts agree that significant actions will need to be taken to achieve these reductions. Between 1990 and 1996 GHG emissions rose 8 percent in the U.S., as strong economic growth and declining energy prices have increased energy use.

While ultimately an international issue, states have become increasingly active in climate change discussions. One of the main reasons for this involvement is that the federal government has looked to the states to implement initiatives to reduce greenhouse gases and other emissions. Wisconsin, like many other states, has played an active role in researching, developing and implementing mitigation strategies to reduce GHG emissions. Most of the research has focused on the direct costs and benefits of implementing these strategies with little information for decision makers on how these strategies affect the regional economy.

The purpose of this report is to examine the macroeconomic impacts of consumer and business investments in end use efficiency and end use fuel switching measures that reduce electricity use in Wisconsin. It does not analyze the economic impacts of investments in cleaner electric supply technologies or cleaner transportation measures. Wherever this report refers to efficiency and fuel switching measures it is referring to end use efficiency and end use fuel switching measures.

This study used as an input, the ranking of end use efficiency and end use fuel switching measures from the 1998 Greenhouse Gas Emission Reduction Cost Study prepared by the Wisconsin Department of Natural Resources, University of Wisconsin, Consortium for Integrated Resource Planning, and the Leonardo Academy Inc. (WDNR, 1998) with support from other state agencies and private organizations. The WDNR, 1998 report developed several GHG emission reduction scenarios based on screening the full range of emission reduction measures from a utility cost perspective.

The analysis of broader economic impacts of GHG emission reductions described in the current report investigates some of the emission reduction measures identified in the WDNR (1998) report, yet is different in three important aspects:



ENERGY FITNESS EXECUTIVE SUMMARY

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- This analysis includes only end use electric energy efficiency and end use fuel switching measures installed in the residential, commercial, industrial, and agricultural sectors, because these comprised the majority of the low cost emission reduction measures identified in the DNR report.
- This analysis examines the impacts of implementing these measures from the consumer's perspective instead of the utilities' perspective, using retail electricity prices to calculate customer savings instead of utility avoided costs.
- This analysis uses a 53-industry dynamic economic forecasting and policy simulation model of Wisconsin's economy, developed by Regional Economic Models, Inc. (REMI) to measure economic impacts of energy efficiency investments. The REMI model captures the economic ripple effects that occur as money is respent by industries that are linked in Wisconsin's economy. The model is dynamic because it incorporates changes in prices, wage rates, demographics, regional productivity and other economic variables and tracks the impacts these variables have on employment, personal income and gross state product. This model is also used by the Wisconsin Department of Transportation (DOT) to carry out economic impact analyses of transportation projects.

This analysis investigates the economic impacts of two scenarios for investment in energy efficiency and fuel switching measures. The first scenario includes implementation of only cost effective measures. The second scenario includes implementation of all the measures that cost up to \$100 per ton of CO₂ emission reduced.

The results show that the cost-effective scenario with investments of \$1.75 billion in energy efficient technologies by Wisconsin residents, businesses and farmers would:

- Create 8,500 new jobs, \$490 million in disposable income and \$41 million in gross state product by 2010 (see Table 1).
- Reduce Wisconsin's greenhouse gas emissions by 7.7 million tons in 2010, which is 21 percent of the amount needed to reduce greenhouse gas emissions to their 1990 level.
- Reduce projected statewide electricity use in Wisconsin by more than 9 million megawatt hours in 2010. This is equivalent to displacing the electricity generated from five 265 megawatt power plants or consumed annually by over one million households.



ENERGY FITNESS EXECUTIVE SUMMARY

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- Reduce the need for electric generation capacity additions by more than 1300 megawatts.
- Decrease energy and operating expenditures by \$4.44 billion between 1997 and 2010. Given the investment of \$1.75 billion needed to install the more efficient technologies for consumers and businesses during the same period, this amounts to a total net savings of \$2.69 billion or a benefit-cost ratio of 2.7.

Figure 1 shows the overall impact on Wisconsin's economy of implementing the cost effective energy efficiency scenario relative to a business as usual scenario. The overall impacts are relatively small due to the level of investment considered in this analysis. In proportion to the rest of the economy, employment and income, are expected to grow by only 0.1 percent to 0.4 percent in 2010. Real disposable income increases steadily throughout the forecast period.

This occurs as cumulative energy savings exceed the higher capital cost consumers pay for more efficient technologies, which increases consumer purchasing power.

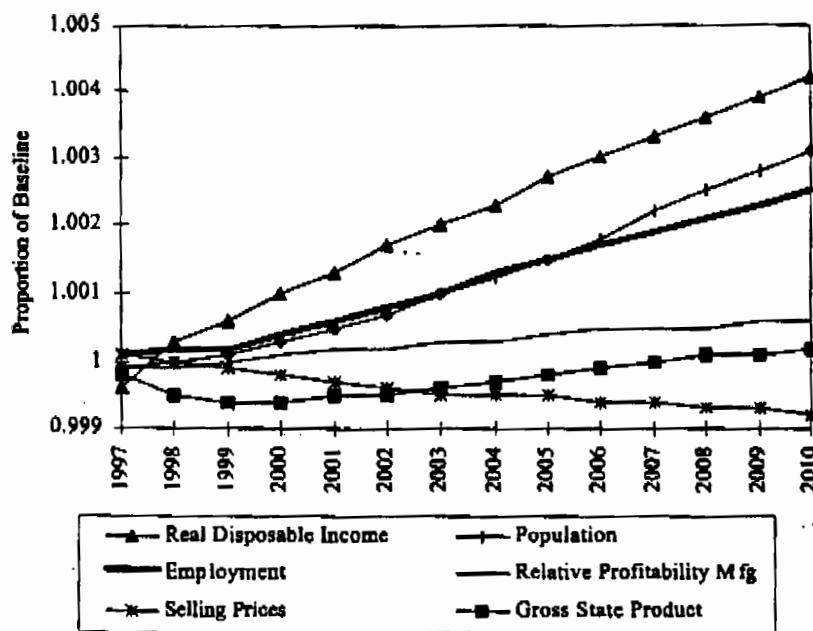


Fig. 1. Impacts on the Wisconsin economy of implementing the cost effective energy efficiency scenario relative to baseline of business as usual (relative changes in selected economic variables).



ENERGY FITNESS EXECUTIVE SUMMARY

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Real disposable income per capita (not shown) also increases throughout the forecast period as the income growth exceeds population growth and inward migration.

Energy savings in the residential and commercial sectors are the biggest drivers of employment and income growth. Energy savings in the residential sector increases disposable income, which leads to growth in employment as most of the income is spent locally on consumption of goods and services other than electricity. Energy savings in the commercial and industrial sectors lower the cost of doing business and can increase the competitiveness, productivity, and profitability of Wisconsin businesses. If other states do not capture the benefits of increased energy efficiency and all other factors affecting the cost of business remain the same, Wisconsin industry will increase their competitive advantage.

If businesses in other states also capture the benefits of increased energy efficiency and all other factors affecting the cost of business remain the same, Wisconsin businesses will retain their competitive position.

For industries that sell primarily in regional markets, energy savings are passed on to consumers through lower selling prices of goods and services. This stimulates further consumption and demand for intermediate inputs both locally and outside the region, which creates additional jobs and income. Furthermore, it causes exports and the percentage of goods supplied locally to increase while imports decline. For regional industries that sell primarily in national markets, electricity savings result in increased profitability.

Increased investments in energy efficient technologies would create jobs in nearly all Wisconsin's industries. This is because money would be shifted away from the capital intensive electric industry which exports a significant portion of its revenue to other regions to pay for fossil fuels, and toward more labor-intensive industries and greater local consumption of goods and services.

The service and retail trade industries would realize the greatest employment increase as consumers spend energy savings on consumption and service related activities (such as health care, lodging, amusements, restaurants, business services, auto repair, etc.). The local sale of energy efficient appliances and technologies generates job growth in retail and wholesale trade. The utility sector realizes a net loss in employment as electricity savings reduce the amount of electricity needed by consumers relative to the base case. The combined impact on jobs in the various sectors determines the overall impacts on employment in Wisconsin of the two scenarios which are shown in Table 1. Employment, real disposable income, and gross state product net of the utility sector increase in both scenarios. Gross state product rises by \$41 million in



ENERGY FITNESS

EXECUTIVE SUMMARY

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Table 1. Economic impacts of Wisconsin electric energy efficiency and fuel switching investments in 2010

Impact	All measures with a net cost per ton of CO ₂ reduced up to	
	\$0/ton	\$100/ton
Employment	8,526	7,255
Real disposable income (mil. 92\$)	490	428
Gross state product (mil. 92\$)	41	-42
GSP net of utility sector (mil. 92\$)	323	266

the up to zero cost per ton case and declines by \$42 million in the up to \$100 per ton scenario.

Figure 2 shows that for the measures analyzed, the majority of the emission reductions identified (about 7.7 million tons or 89 percent of the total emission reductions) can be achieved at a net saving (at a net cost below \$0 per ton) to Wisconsin's electricity consumers. A net savings means that the cumulative energy savings over the life of an energy efficient measure exceed the incremental investment and operating costs. Only 0.9 million tons of additional emission savings would be achieved by implementing the measures with net costs between \$0 and \$100 per ton of CO₂ reduced.

Implementation Issues: This study assumes that the increased investment in the more efficient technologies for consumers and businesses would be achieved at no extra cost to consumers beyond the higher capital cost for purchasing the more efficient technologies. This means that no program costs for causing the implementation of higher efficiency and fuel switching end use measures were included in this analysis.

An implementation program will be needed to stimulate the increased investment in the more efficient technologies, but the actual program costs will depend on the approach used for implementation of measures. Approaches to implementation are available that are effective and have low program costs. Such approaches would closely match to the assumptions used in this report.

For example, using increased equipment energy efficiency standards and increased building energy efficiency standards in building codes has low program costs, and high penetration rates that could deliver the emission reductions identified in this



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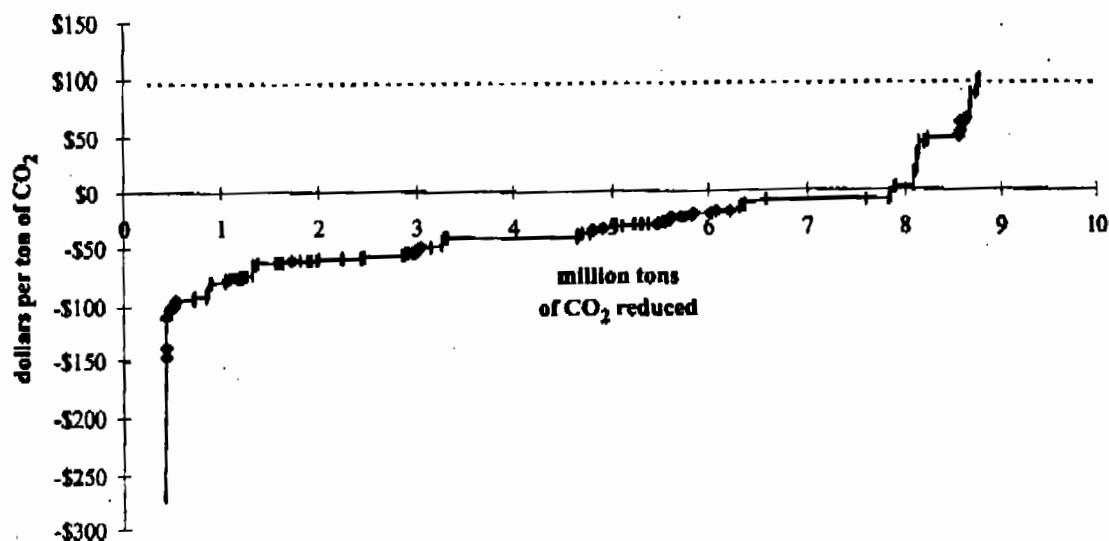


Fig. 2. The net cost of reducing greenhouse gas emissions. Each diamond represents one of 176 specific energy efficiency and end use fuel switching measures installed in the residential, commercial, industrial or agricultural sectors. See Appendix B for a list of specific measures, ranked by their net cost of reducing GHG emissions. Net cost is equal to the incremental investment and operating costs of an energy efficient measure compared to a standard efficiency measure minus avoided energy and capacity savings divided by emission reductions over the operating life of the measure. In this figure, the energy cost savings are taken from WDNR (1998) where they were calculated using a utility cost perspective.

study. Other approaches to implementation can have higher program costs that significantly diverge from the assumptions used in this report and could affect the results of this study.

There is some room for covering program costs, given the direct cost savings between 1990 and 2010 and the increase in annual disposable income cost savings by 2010. Installing all the cost effective measures evaluated in this report would result in a cumulative net savings of \$2.7 billion and a cumulative increase in disposable income of \$3.3 billion between 1997 and 2010. Installing all measures costing up to \$100 per ton of CO₂ reduced would result in cumulative net savings of \$2.2 billion and a cumulative increase in disposable income of \$2.5 billion between 1997 and 2010.

Alternative approaches to implementation are not considered in this report but will be considered in the development of a climate change action plan that reduces



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greenhouse gas emissions in Wisconsin. In this next phase, choosing approaches to implementation that are effective and low cost will provide the greatest economic benefits.

Possible Effects of Use of Generation Capacity Freed Up by the Efficiency Measures to Supply Loads Outside the State: Generation capacity freed up by the efficiency measures could be used to generate electricity to serve out of state loads. It is possible that the net generation freed up could be used to generate electricity for sale outside of the state. If this occurred it would increase the emissions from the generation plants in Wisconsin but decrease the emissions from the generation that would have otherwise served those out of state loads. This means that the electricity end use reduction measures decrease emissions somewhere, and the out of state electricity sales would simply change where these emission reductions occur. Since climate change is global in scope, the specific location of greenhouse gas emission reductions does not diminish the effectiveness of these emission reductions.

In summary: This study shows that installing cost-effective electric energy efficiency measures in Wisconsin's homes, businesses and farms will lower greenhouse gas emissions produced from fossil fuel combustion while delivering employment and income benefits for Wisconsin. Installing these measures will produce net savings that increase disposable income for residents to spend on goods and services other than electricity. In addition, by lowering the cost of producing goods and delivering services, they increase the competitiveness, productivity and profitability of Wisconsin businesses. Furthermore, these technologies use less energy to deliver a similar or improved level of service (heating, cooling, lighting and drive power), comfort and convenience. Thus, these investments deliver overall benefits to individual residents and businesses as well as society.

Public policy decisions of what actions should be taken to reduce greenhouse gas emissions will need to balance the full range of costs and benefits of various levels of possible actions. This report was developed to contribute to the foundation for these public policy decisions.

Statement of Chairman James M. Talent
Committee on Small Business
Kyoto Protocol: The Undermining of American Prosperity?
June 4, 1998

Good Morning. Today, the Committee on Small Business will be examining the impact of the Kyoto Protocol on the backbone of the U.S. economy- Small Businesses. Small businesses account for 99.7% of the nation's employers, employ 53% of the private work force, contribute 47% of all sales in the country, and are responsible for 50% of the private gross domestic product; and any treaty that hurts the small business sector poses a threat to the jobs, goods and services available to the American people. The Kyoto Protocol, often referred to as the climate change agreement, was agreed to in negotiations which were completed on December 11, 1997. The Protocol commits the United States to a target of reducing "greenhouse gasses", mainly carbon dioxide, by 7% below 1990 levels during a "commitment period" between the years 2008-2012. Moreover, while the protocol mandates that America reduce its carbon dioxide emission reductions to 1979 levels by 2012, it exempts huge emissions producers such as China, India, South Korea, Brazil, and Mexico, as well as other developing nations. As a result, according to the U.S. Energy Information Agency, the developing countries will surpass the industrialized countries in carbon output by 2010 under this protocol. All of

this is important because, in plain terms, greenhouse gases are emitted by the production and use of energy, so the Kyoto Protocol is a substantial, comprehensive, and unprecedented restriction on the use of energy by the American economy, both in absolute terms and relative to the rest of the world. It is vital that we understand the impact of this kind of new order on the real lives of real people in the communities of America. The Committee will hear testimony from a number of different witnesses on this issue.

As an example, according to the Wharton Economic Forecasting Associates (WEFA), ratification of Kyoto would mean that:

- Residual fuel oil prices for industrial facilities would increase by roughly 140%
- Natural gas prices for industry would increase by 90%
- the United States GDP would decline by more than 2.5% per year
- a million good, high-paying jobs would be lost and the U.S. trade deficit would jump sharply.

What would the protocol mean to the small business community across the country? Small energy intensive industries such as bakeries, dry cleaners, auto repair shops, small manufacturers, and, ironically, recycling businesses would be hit immediately upon ratification of the Kyoto Protocol. Many other small business that sell to large industries such as steel, aluminum, chemical manufacturers, paper, and cement would find that they have packed

their bags and moved to countries with no such emission restrictions such as Mexico. Moreover, small exporting companies would be forced to raise their prices due to increased energy prices and would not be able to compete with companies in developing countries such as China and Mexico. As a result, U.S. exports would become relatively more expensive on the world market and the trade deficit would skyrocket. Ultimately under this protocol, small businesses would be forced to pay higher utility bills, pay higher gas taxes, operate much smaller less useful vehicles and, unfortunately for some small entrepreneurs, be run out of business.

These kinds of concerns are the reason I have called the Kyoto agreement the selling out of American jobs, American enterprise, and American prosperity.

We have two panels of witnesses who have consented to agree to appear before the Committee today, including the Chair of the Council of Economic Advisers, Doctor Janet Yellen. Before we turn to those witnesses, I will recognize the distinguished ranking member for any statement she may wish to make.



American Council for an Energy-Efficient Economy

WASHINGTON, DC

TESTIMONY OF HOWARD GELLER, EXECUTIVE DIRECTOR
THE AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY

BEFORE THE COMMITTEE ON SMALL BUSINESS
U.S. HOUSE OF REPRESENTATIVES

ON THE KYOTO PROTOCOL TO THE UNITED NATIONS
FRAMEWORK CONVENTION ON CLIMATE CHANGE

June 4, 1998

The American Council for an Energy-Efficient Economy (ACEEE) is a non-profit research organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection. We conduct studies, advise policymakers, assist with energy efficiency program design and evaluation, work collaboratively with business, disseminate information, and inform consumers. I appreciate the opportunity to appear before the Committee.

In my testimony, I would like to make three main points:

- 1) **Reducing greenhouse gas emissions and achieving the targets in the Kyoto Protocol can yield economic benefits for the United States as a whole.**
- 2) **Reducing greenhouse gas emissions offers enormous growth opportunities for small businesses.**
- 3) **Federal energy efficiency and renewable energy programs can help small businesses to profit and grow while cutting greenhouse gas emissions.**

Reducing Greenhouse Gas Emissions Can Benefit the Economy.

A strong commitment to cut U.S. emissions of carbon dioxide and other greenhouse gases (GHGs) does not need to be a drain on the U.S. economy, as some critics of the Kyoto Protocol have claimed. For example, over 2000 economists issued a statement last year which says in part, "Economic studies have found that there are many potential policies to reduce greenhouse gas emissions for which the total benefits outweigh the total costs."

Relying on better technologies such as more efficient appliances, lighting, vehicles, and industrial processes as well as renewable energy sources, rather than onerous taxes or heavy-handed regulations, is the key to cutting GHG emissions without harming the

economy. By taking a technology-oriented approach, the United States and other nations can create new industries and jobs, save consumers money, and greatly reduce GHG emissions. Many of these new technologies and jobs will come from small businesses since small businesses tend to be more innovative and entrepreneurial than large "Fortune 500" companies.

An innovation-led strategy for achieving the target adopted in Kyoto can produce a net increase in jobs by improving energy productivity, reducing expenditures on oil imports, and expanding sectors of the economy that result in the most employment per dollar of expenditure. A study conducted by ACEEE along with four other public interest organizations, called *Energy Innovations*, shows that the US can reduce its carbon dioxide emissions 10 percent below 1990 levels by the year 2010, while boosting economic performance. The *Energy Innovations* study found that by following an innovation path, the economy would support 800,000 additional jobs by 2010 compared to business-as-usual growth in the economy. Consumers would realize net savings of \$530 per household per year by 2010 due to energy bill savings exceeding the cost of energy efficiency and renewable energy measures.]

Other studies, such as report prepared by five national laboratories for the U.S. Department of Energy titled *Scenarios of U.S. Carbon Reductions* reached a similar conclusion as *Energy Innovations* -- namely that it is possible to greatly reduce our GHG emissions without harming the economy if the emphasis is on a technological response rather than onerous taxes that depress economic growth.

It is important to keep these results (and competing claims of economic losses) in perspective. In an economy that creates 250,000 new jobs per month, the job gains forecast by *Energy Innovations* amount to a little less than one-half of one percent of baseline employment forecast for 2010. Also, it is important to recognize that there will be some shift in employment within the economy as a whole. Job gains in technology manufacturing, construction, and services will be partially offset by lower employment in the fossil fuel and utility industries. Steps should be taken to ensure that displaced workers are retrained and given employment opportunities in the growing energy efficiency and renewable energy industries.]

Note that these results are based on achieving emission reductions entirely through domestic action in the energy sector. The U.S. can and should plan to achieve a substantial majority of the emission reductions called for in the Kyoto Protocol through domestic action. Nonetheless, the additional flexibility built into the Kyoto Protocol ensures that marginal emission control costs will remain low, even if some approaches are not as successful as we expect.

If it is possible to greatly reduce GHG emissions with net economic benefits, it is fair to ask why some studies claim that reducing GHG emissions will harm our economy. First it should be noted that many of these studies are funded by producers and major consumers

of the fossil fuels that cause global warming. Second, the studies use worst case assumptions that lead to loss of economic output, such as imposition of a carbon tax without recycling the revenue, no consideration of technological response or the cost savings from energy efficiency improvements, no economic benefits from pollution abatement, and no international joint implementation. The studies are thoroughly critiqued in a recent World Resources Institute report by Repetto and Austin titled *The Costs of Climate Protection: A Guide for the Perplexed*.

Putting economic modeling aside, history tells us that every time we have faced an environmental challenge--from getting the lead out of gasoline, to protecting the ozone layer, to controlling acid rain--there have been those in affected businesses that have said that it won't work and it will wreck the economy. They have never been right. In fact, once the decision was made, each time industry rose to the challenge and American ingenuity found ways to address these problems cheaper and faster than had been anticipated. To take one example, industry predicted that controlling acid rain would cost as much as \$1500 per ton of sulfur removed. Sulfur allowances are now trading at about \$100 per ton--less than one-tenth the prior estimate.

Reducing Greenhouse Gas Emissions Provides Economic Growth Opportunities for Small and Medium-Size Businesses.

A shift away from fossil fuels such as coal and petroleum and towards greater energy efficiency and renewable energy technologies presents enormous opportunities for small and medium-size businesses to grow and thrive. These businesses can manufacture, sell, and install energy-efficient appliances, lighting products, control systems, solar and wind power systems, advanced industrial processes, etc. Farmers can grow bioenergy crops and operate bioenergy facilities as well as produce food. Home builders can construct more efficient, higher value-added buildings, thereby increasing their revenues. And insulation and HVAC contractors can increase their business as they make our existing homes and commercial buildings more energy-efficient. All of this means more output and revenues for small and medium-size businesses, and less output and revenue for the Exxon's and Commonwealth Edison's of the world.

I would like to present some real world examples of small and medium-size businesses that are already profiting and growing by serving energy efficiency and renewable energy markets, or installing state-of-the-art industrial process equipment in their own operations.

AstraLite

AstraLite, based in Annandale, NJ, is a division of Computer Power, Inc. In the words of Les Listwa, one of its senior staff, Computer Power was a dying business five years ago since it was unable to compete with large manufacturers of inverters

and uninterruptible power supplies. In 1993, Computer Power formed the AstraLite division to manufacture and market light-emitting diode (LED) exit sign kits. An LED exit sign consumes just 2 Watts of power, compared to 12 Watts for a typical compact fluorescent exit sign or 40 Watts for an incandescent-based sign. The U.S. EPA Energy Star light fixtures program is promoting this technology, and the market is growing about 50 percent a year. AstraLite, which now employs about 80 workers, saved its parent company.

AstroPower Inc.

AstroPower, based in Newark, DE, is the second largest U.S.-owned manufacturer of photovoltaic cells and modules. AstroPower currently has about 185 employees and \$25 million in annual sales revenues. Sales revenue grew at a compound annual growth rate of 65% over the past five years. The company just went public.

Bergey Windpower Co.

Bergey Windpower Co. of Norman, OK was founded in 1977 and is currently the world's leading supplier of small wind turbines. BWC wind turbines have been installed in all 50 states and more than 80 countries. The company employs 25 workers and has annual revenues over \$4 million, compared to \$1.5 million five years ago. Earlier this year BWC established a Chinese joint venture to better serve this fast growing market for its products.

Broin and Associates, Inc.

Broin and Associates of Sioux Falls, SD builds medium-size fuel ethanol plants throughout the Midwest. These plants produce fuel ethanol and cattle feed using corn or milo as the feedstock. All of the plants are either cooperatively owned by farmers or co-owned by Broin and farmers. Broin and Associates currently employ and manage over 150 workers, up from about 50 workers four years ago. The company is profitable and growing.

Comfortex, Inc.

Comfortex, based in Cohoes and Watervliet, NY, manufactures energy-efficient insulating window treatments. Their window shades more than double the insulating value of a typical double pane window. Comfortex started out in 1990. They now have about 400 employees with plants in New York, Arizona, Florida, Nevada, and Pennsylvania. Sales of the insulating shades are increasing about 20-30 percent per year. The company got help in developing its window insulation technology from the New York State Energy Research and Development Authority (NYSERDA).

Decatur Foundry, Inc.

Decatur Foundry, located in Decatur, IL, produces iron castings for motor and pump components. Decatur has invested in new infrared heating equipment and computerized controls which enabled it to significantly cut energy use, reduce pollutant emissions, increase output and productivity, and create a safer workplace. Annual sales revenue grew from about \$6 million to \$10 million after these investments were made, with employment growing to 75 workers. Decatur received help from the Electric Power Research Institute and its local utility in implementing these innovations. It is participating in the U.S. EPA Climate Wise program.

A. Finkl and Sons Co.

A. Finkl and Sons, located in Chicago, is a large custom die steel forger. The company has \$80 million in revenues and 400 employees. Finkl was a thriving company in the 60s and 70s, but like many Midwestern iron and steel companies was hit hard by the recession of the early 1980s. Finkl responded by making capital improvements including installing state-of-the-art energy-efficient furnaces, computerized controls, and maximizing reuse of solid waste. As a result, Finkl has bounced back and is now one of the most efficient companies in its business. It is producing twice what it did in the early 70s, while consuming 60% less energy per pound of output.

Southwall Technologies

Southwall Technologies, based in Palo Alto, Ca, specializes in making low-emissivity coatings and films that are used in energy-efficient windows. Southwall developed its initial products with financial and technical support from the U.S. Department of Energy and Lawrence Berkeley National Laboratory. The company now has 250 employees and production facilities in California and Tempe, AZ. Sales revenue grew from \$18 million in 1993 to \$50 million in 1997.

Trigen Energy Corp.

Trigen, based in White Plains, New York, owns and operates cogeneration facilities and district heating and cooling systems in 22 locations throughout North America. For example, Trigen purchased the old district heating system in downtown St. Louis and is upgrading and expanding it. New customers served by the system include the Trans World Dome and the Morgan Street Brewery. By generating electricity and using the "waste heat" for supplying heating and cooling to buildings, Trigen greatly reduces fuel use and pollutant emissions while helping to revive urban core areas. The company has grown rapidly in the past decade, with 760 employees today compared to 200 in 1992.

Other examples:

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*EPA case studies: Energy Star Small Business program;
Climate Wise program
• reports & web site*

These are not isolated examples -- there are thousands of small and medium-size businesses that are manufacturing, selling, or using energy efficiency and renewable energy technologies and, in doing so, are profiting from reducing GHG emissions and helping to slow global warming. The lesson from these examples is that by encouraging technological innovation, we can address the threat posed by global climate change while growing the economy and strengthening our nation's small businesses.

It is also important to note that international markets for energy efficiency and renewable energy technologies are expanding very rapidly. For example, worldwide windpower capacity tripled, solar photovoltaic cells shipments more than doubled, and compact fluorescent lamp sales increased by over a factor of 2.5 between 1992 and 1997. Some of the small businesses mentioned above, such as Bergey Windpower and Southwall Technologies, are thriving in large part because of exports. Promoting greater energy efficiency and renewable energy in the United States will help our companies prosper and better compete internationally.

Federal Programs Help Small Businesses Cut GHG Emissions Profitably.

Small businesses are usually not able carry out R&D on their own. They often lack technical expertise or dedicated energy and environmental managers. They often do not have information on or access to the latest energy efficiency and pollution prevention technologies. Nor are they well-equipped to compete in international markets.

A variety of federal programs are helping small businesses overcome these barriers and develop and implement state-of-the-art energy efficiency and renewable energy technologies. These programs are saving businesses and consumers money while cutting pollution of all types. And they are helping small businesses access international markets. These programs include:

EPA Energy Star and Green Lights programs

The Energy Star and Green Lights programs are assisting thousands of small businesses that are either manufacturing energy-efficient products or installing energy efficiency measures. These companies receive information, software, training, and recognition from the EPA. Nationwide, EPA estimates that program participants invested \$1.8 billion in efficiency measures and saved \$5.3 billion on their energy bills during 1991-97, and cut their carbon emissions by 25 million metric tons. Small businesses and institutions that are actively participating in the program in the St. Louis area include Venture Stores, Dazor Manufacturing Corp., Starbeam Supply Co., St. Louis Children's Hospital, and Washington University.

DOE Industrial Assessment Centers program

The Industrial Assessment Centers are located at 30 universities throughout the

country. The Centers provide free energy, waste, and productivity audits specifically for small and medium-size manufacturers. The Centers have conducted over 8,000 audits since the program was started and have generated about \$375 million in cost savings for the participating companies. About 300 assessments have been performed for manufacturers in Missouri by Centers located at the University of Missouri at Rolla and the University of Kansas.

DOE Building America and EPA Energy Star Homes programs

The Building America and Energy Star Homes programs are helping home builders upgrade the energy efficiency of new homes thereby improving housing quality, lowering energy bills, and making home ownership more affordable. Major builders like Pulte and Ryan Homes as well as smaller builders all over the country are participating in these programs. DOE and EPA are providing training and technical assistance to show these builders how they can significantly upgrade energy efficiency while minimizing any increase in construction costs.

CORECT and COEECT

The Department of Energy runs two programs, the Committee on Renewable Energy Commerce and Trade (CORECT) and the Committee on Energy Efficiency Export and Trade (COEECT) that are helping U.S. small businesses access and compete in rapidly growing worldwide markets. These programs are providing valuable support to American companies through market assessments, trade missions, facilitating export financing, etc.

The voluntary programs mentioned above are helping small businesses innovate, save money, increase sales, and cut pollutant emissions. They are justified even if the climate change problem didn't exist. They are not "premature implementation of the Kyoto treaty" as some have suggested.

President Clinton has proposed expanding existing Federal energy efficiency and renewable energy programs as part of his Climate Change Technology Initiative. While it's outside the purview of this Committee, I urge friends of small business in the Congress to approve this funding independent of opinions concerning the Kyoto Protocol. Put simply, these programs are good for business. If these technology-oriented programs are a success, we won't need to adopt onerous new taxes or burdensome regulations in order to meet our nation's environmental goals, whether it be goals of the Clean Air Act today or the Kyoto Protocol to the Framework Convention on Climate Change tomorrow.

Thank you for considering these views.