

Before the State of Wisconsin
Department of Natural Resources

**PETITION BY CITIZENS FOR THE
ADOPTION OF RULES TO GOVERN
CARBON DIOXIDE EMISSIONS TO THE
AIR AND SPECIFICALLY REQUIRING
REDUCTIONS FROM THE LARGEST
STATIONARY SOURCES OF CARBON
DIOXIDE EMISSIONS WHICH CONTRIBUTE
TO GLOBAL CLIMATE CHANGE**

Citizen Petition for Rules
Docket No. _____

TO: Secretary of the Department of Natural Resources
and the Members of the Natural Resources Board
Post Office Box 7921
Madison, Wisconsin 53707

The undersigned citizens of the State of Wisconsin hereby petition the Wisconsin Department of Natural Resources (DNR) and the Natural Resources Board for the adoption of a rule which requires the reduction of carbon dioxide emissions to the air, which are known to trap heat and thus affect the climate, from the largest sources of such emissions under the authority given to the Department in section 285.21 (1) (b), Wis. Stats.

This petition is filed pursuant to the provisions of sections 227.11 (2) (a) and 227.12 (1) and (2), Wis. Stats., and Wisconsin Administrative Code NR 2.05. A petition for rulemaking must state the substance or nature of the rule requested, the reason for the request, the petitioners' interest in the requested rule, and a reference to the agency's authority to promulgate the requested rule, according to section 227.12 (2), Wis. Stats. This petition fulfills these requirements.

I. PETITIONERS' INTEREST IN THE REQUEST

Richard Bogovich joins in this petition as Energy Campaign Director for Wisconsin's Environmental Decade. He was previously the Wisconsin field organizer for the National Environmental Trust, and from 1988 to 1995 he was environmental aide to State Senator Robert Cowles.

George Meyer joins in this petition individually as the Scarff Visiting Professor in Government and Environmental Studies at Lawrence University. He was a 32 year employee at the DNR including 8 years as Secretary. He is also a Past President of the Environmental Council of the States made of the 50 state environmental secretaries.

Stephen V. Mawn, M.D., J.D., M.P.H., joins in this petition individually as a board-certified physician in Occupational and Environmental Medicine practicing in Racine.

Richard L. Lindroth, Ph.D., joins in this petition individually as a Professor of Ecology in the Department of Entomology at the University of Wisconsin-Madison. During April of 2003 he was a contributing author of the report *Confronting Climate Change in the Great Lakes Region: Impacts on Our Communities and Ecosystems*, which was published by the Union of Concerned Scientists and the Ecological Society of America.

Timothy J. Ehlinger, Ph.D., joins in this petition individually as an Associate Professor of Biological Sciences at the University of Wisconsin-Milwaukee. Since 1999 he has served as the Director of the campus' Interdisciplinary Major in Conservation and Environmental Science. He received a Ph.D. in Zoology from Michigan State University in 1986.

The Rev. David Steffenson, Ph.D., of Columbus, joins in this petition individually as a retired United Methodist minister. He has a BA from the University of Denver in social sciences and journalism; Th.M from Iliff School of Theology, Denver; STM in political social ethics from Yale University Divinity School; and Ph.D. in Ecological Social Ethics from The Union Institute and University, a national program based in Cincinnati, Ohio. He directed the Wisconsin Interfaith Climate and Energy Campaign of Wisconsin Interfaith IMPACT on his retirement for three years and is still active in that campaign and other environmental causes.

Joseph Bachman, M.D., of Neenah, joins in this petition individually as a retired physician. He practiced Internal Medicine with the Affinity Clinic in Appleton for 25 years. He is an outdoor sportsman, and is active in several environmental organizations.

Sister Michelle Balek, OSF, joins in this petition as North America Region Coordinator for Franciscans International, in Milwaukee. Because Franciscans International is an NGO in Consultative Status with the United Nations Economic and Social Council (ECOSOC), she participated in FI's delegation to the 1999 UN climate change conference in Bonn, Germany. She is a graduate of Clarke College in Dubuque, Iowa, with a degree in Sociology/Social Work.

The Rev. Richard Blomker joins in this petition as pastor of Lake Edge Lutheran Church in Madison. He is a graduate of the University of Iowa, having majored in Religion, and Luther Theological Seminary in Saint Paul, Minnesota. He is Co-chair of the Interfaith Coalition for Worker Justice in Madison and serves on the Synod Global

Connections Environmental Committee and the Synod Council of the South Central Synod of Wisconsin.

Terry Burki, of Hartland, joins in this petition individually as a member of the steering committee of the Wisconsin Interfaith Climate and Energy Campaign. She is currently undergoing naturalist training at Retzer Nature Center in Waukesha County and is a graduate of Alverno College in Milwaukee, where she received a degree in Professional Communication.

Kim Herb, of Mount Horeb, joins in this petition as co-director of the Wisconsin Interfaith Climate and Energy Campaign of Wisconsin Interfaith IMPACT. She is also currently working as the coordinator for the Faith Inclusion Network (F.I.N.). She earned a BA in Philosophy and the History of Mathematics from St. John's College in Santa Fe, New Mexico, where she focused on Process Studies.

Chris Herb, of Mount Horeb, joins in this petition as co-director of the Wisconsin Interfaith Climate and Energy Campaign of Wisconsin Interfaith IMPACT. He has worked for the Biodiversity Project and is currently organizing a regional Jewish environmental alliance. He attended the Iliff School of Theology in Denver, Colorado, focusing on eco-Judaism.

Robert Reuschlein, CPA, MBA, joins in this petition individually as a member of the Madison Area Peace Coalition since 1999. He recently became president of the Madison World Federalist Association, a United Nations reform group.

Sarah Streed, of Stoughton, joins in this petition as chair of the steering committee of the Wisconsin Interfaith Climate and Energy Campaign. She has a BA from Wheaton College in Literature and an MFA in Creative Writing from the University of Arizona.

The Rev. James Theselius joins in this petition individually as a United Methodist pastor for about twelve years, now retired. He is a graduate of the University of Chicago and the Chicago Theological Seminary and was a campus minister for about 25 years, specializing in the interplay between science, technology and religion.

Roland Todd, of Madison, joins in this petition individually as an Ordained Elder in the United Presbyterian Church for over 35 years. He has been a leader in ecumenical religious programs and serves on the Board of Directors of Wisconsin Interfaith IMPACT.

Arlen Christenson, LL.B., joins in this petition individually as Emeritus Professor of Law and Environmental Studies, University of Wisconsin-Madison. He chairs the [Board of Directors of Midwest Environmental Advocates](#) and for almost twenty years served as a member and chair of the Citizen's Advisory Committee to Wisconsin's Office of the Public Intervenor.

Gail Shea, of Shorewood Hills, joins in this petition individually as a former employee of the Department of Natural Resources. She was a planning and program analyst from 1995 to 1997 and then served as executive director of the Wisconsin Democracy Campaign for four years. She was on the board of directors of the Natural Heritage Land Trust from 1990 to 1996 and currently serves on the board of directors of Friends of Campus Natural Areas.

Jerry Foote, Ph.D., joins in this petition individually as a retired Professor of Biology, University of Wisconsin-Eau Claire.

Roger Luhn, M.D., joins in this petition individually as a child psychiatrist with Rogers Memorial Hospital in Oconomowoc. He is also a clinical instructor for the University of Wisconsin Medical School.

Sister Betty Wolcott, OSF, joins in this petition as Director of The Woodlands, a preserve and education/retreat center near Osseo.

Steven Vavrus, Ph.D., joins in this petition individually as a research climatologist at the University of Wisconsin-Madison.

Bruce Barrett, M.D., Ph.D., joins in this petition individually and as President of Madison Physicians for Social Responsibility. He is a family physician and a medical anthropologist, currently working as an Assistant Professor at the Department of Family Medicine at the University of Wisconsin-Madison.

The Rev. Curt Rohland joins in this petition individually as pastor of English Lutheran Church of Bateman, near Chippewa Falls. He has represented the Evangelical Lutheran Church in America on the Board of Directors of the Wisconsin Council of Churches. He is chairperson of the Board of Directors for the Wisconsin Farmland Conservancy, and for years has worked on issues of sustainability and family farm survival. He is also a member of the Citizens Advisory Council to the University of Wisconsin's Center for Integrated Agricultural Systems (CIAS). He and his family owned and managed a 240-acre dairy farm for 19 years.

The Rev. Virginia L. Wolf, Ph.D., joins in this petition individually as minister for the Unitarian Universalist Fellowship of Eau Claire. She recently retired from the English faculty at the University of Wisconsin-Stout. In addition to her doctorate, which was from the University of Kansas, she has also earned three master's degrees.

Jan Conley, of Superior, is joins in this petition individually as one of the founders of the Lake Superior Greens. She is also the executive director of EAGLE (the Environmental Association for Great Lakes Education).

Pete Karas joins in this petition individually as a newly elected alderman in the City of Racine. He has Certified Insurance Counselor (CIC) and Certified Risk Manager (CRM) designations and is a Vice President with Carpenter, Rowland, Battenberg Insurance in Mount Pleasant. He has a BS in Economics and Finance from the University of Wisconsin-La Crosse.

Monica Vohmann, M.D., of Madison, joins in this petition individually as a family physician and member of Physicians for Social Responsibility. Her primary reason for joining in this petition is to ensure the best air quality in order to reduce respiratory illnesses.

Alycia Ashburn Holtebeck joins in this petition individually as a graduate student in Land Resources at the University of Wisconsin-Madison's Gaylord Nelson Institute for Environmental Studies. She studies the effects of elevated carbon dioxide and ozone concentrations on insect biodiversity in a northern forest community in Wisconsin. She is also a member of and volunteer speaker for the Wisconsin Interfaith Climate and Energy Campaign.

Jeff Schimpff, of Madison, joins in this petition individually as a member of the Regent Neighborhood Association Transportation Committee, and a cross-country ski youth coach. He has an M.S. in environmental planning from the University of Wisconsin -

Institute for Environmental Studies and is employed as an environmental impact analyst.

Ann M. Freiwald, of Madison, joins in this petition individually as a landscape architect. She has worked on bikeway systems for the City of Janesville and a Chicago suburb, Skokie.

Steve Books, of Mount Horeb, joins in this petition individually as "managing member" of the newly formed Fuel Cells America, LLC. He is a member of Carpenters Local 314, Madison and a former high school and middle school Technology Education teacher.

Wayne Stroessner, of Random Lake, joins in this petition individually as a retired science teacher. He serves on numerous committees for environmental groups including the Sierra Club, RENEW Wisconsin, and Greenpeace.

Laura Sutherland, J.D., of Madison, joins in this petition individually as a Lutheran seminarian enrolled in Wartburg Theological Seminary, Dubuque. She was an Assistant Attorney General in the Wisconsin Department of Justice and served as the Public Intervenor on the proposed Crandon mine.

II. SUBSTANCE/NATURE OF THE REQUESTED RULES

Though some of the petitioners have publicly endorsed the greenhouse gas reduction for the United States that was proposed in the Kyoto treaty, this petition requests a rule that would represent a different unilateral policy for the State of Wisconsin. The petitioners propose a gradual, declining cap in carbon dioxide emissions from the power sector. This cap would result in a 75% cumulative reduction by 2060 though would only require annual reductions on the order of 0.5 to 1%. Energy & Environmental Analysis, Inc., has developed a declining cap framework that envisions a three-step approach beginning with an immediate cap followed by a zero growth transition period and then gradual reductions. It assumes a trading program and considers sequestration to be a likely component. It also anticipates a "circuit breaker" that would pause the decline if the annual average allowance price exceeds a predetermined dollar per ton cost threshold. Conversely, an "accelerator" could be applied if the allowance price is very low.

The feasibility of activities that would be vital under such a declining cap has been documented by the DNR. For example, in the April 2000 publication *Warming Trends* it was noted that the department had "completed several studies showing that the use of energy-efficient technologies could reduce the state's emissions of greenhouse gases with little or no net cost." Two years earlier, the Wisconsin Climate Change Action Plan provided an analysis (on pages 2 and 3) of measures that could reach the goal of returning greenhouse gas emissions to 1990 levels:

"The DNR, in cooperation with other agencies and organizations, has just completed the Wisconsin Greenhouse Gas Emission Reduction Cost Study [WDNR, 1998 (Report 3)]. This study examined a large number of potential greenhouse gas emission reduction measures and quantified the cost and potential emission reduction for many of them. It focused on reducing carbon dioxide emissions from the electric utility and transportation sectors since these are the major sources. The study found that greenhouse gas emissions in Wisconsin can be significantly reduced at little or no cost. (Program implementation costs were not included in this analysis.) Through the use of energy efficiency measures alone, Wisconsin can reduce greenhouse gas emissions by 12.5 million tons in 2010 while saving about \$490 million in energy expenditures.

“These measures primarily include the replacement of electric appliances and equipment in all sectors with higher efficiency equipment. Over the long term, these measures save money by reducing electricity use, but they do require capital investments (sometimes fairly large) up front to purchase the more energy efficient appliances and equipment. Some industrial fuel combustion efficiency improvements were also included and accounted for about four million tons of the emission reduction.

“The study also found that Wisconsin's greenhouse gas emissions can be reduced by 21 million tons in 2010 through switching coal-fired power plants to natural gas, and by 1.5 million tons through modest improvements in automobile fuel efficiency. All of these measures together could produce a total emission reduction of about 35 million tons in 2010. The 35 million ton emission reduction would reduce Wisconsin's greenhouse gas emissions to about 1.3 million tons over 1990 levels.

“The study found that the 35 million ton/year emission reduction could be achieved at an overall cost saving of about two million dollars, with energy efficiency savings approximately balancing the cost of the fuel switching. The switching of electric utility coal-fired power plants to natural gas would cost about \$460 million and approximately double the state's consumption of natural gas. The cost estimate for switching utility boilers from coal to natural gas did not include the cost of expanding and extending natural gas pipelines nor the potential increase in natural gas prices that such a massive increase in natural gas use might cause.

“In the fourth study, done by Leonardo Academy with input from the DNR and other groups, the impact on Wisconsin's economy of investments to reduce greenhouse gas emissions was studied (University of Wisconsin Consortium for Integrated Resource Planning, 1998). The study used an economic forecast model and found that the end-use energy efficiency measures documented in Report 3 would create 8,500 jobs in 2010 while increasing disposable income by \$490 million and gross state product by \$41 million. This study demonstrates that using energy efficiency measures to reduce greenhouse gas emissions in Wisconsin benefits both the environment and the economy.”

More recently, Orion Lighting of Plymouth, Wisconsin, has conducted important statistical analyses of the potential energy and budgetary savings of a specific kind of efficiency program in Wisconsin, and has backed up its projections by performing calculations after completing individual projects. For example, in a February 7, 2003 article in Milwaukee's *Business Journal*, Joe Muehlbach of Quad/Graphics stated that his company has reduced its electricity consumption by approximately five megawatts, which the article equated to the amount of electricity it would take to power 3,750 homes for a year. At the center of Quad's efficiency plan was 14,000 new energy-efficient light fixtures provided by Orion.

In its first 4.5 years, Orion completed efficiency projects that displaced approximately 42 MW of electricity and 251,899 tons of carbon dioxide. The company has determined that by retrofitting all commercial and industrial lighting fixtures, “Wisconsin could displace 500 Megawatts (MW) of electricity, or the equivalent of one average coal burning power plant. Additionally, Wisconsin businesses also would save billions of dollars over ten years in electricity cost” as well as 29.9 million tons of carbon dioxide; this would be the equivalent of removing 56.6 million cars.

Because Wisconsin is a less efficient user of energy than most other states, it should be relatively easy in the near future to reduce greenhouse gas emissions substantially through efficiency and conservation. The report *National and State Energy Use and Carbon Emissions Trends* issued in September of 2000 by the American Council for an Energy-Efficient Economy (ACEEE) showed Wisconsin “energy intensity” (primary energy use per unit of Gross State Product) fell 31.3% and “carbon emissions

intensity" (emissions per unit of GSP) fell 39.8% from 1970 to 1997. However, for the average state these rates were much better, at 42% and 47%, respectively. Wisconsin ranked 33rd, behind neighboring states Illinois (tied for 16th), Minnesota (26), and Michigan (27).

"The top states such as New York, Hawaii, and California have done more to reduce energy bills and cut pollutant emissions including those causing global warming than low-ranking states," said Howard Geller, Executive Director of ACEEE and co-author of the study. "The top states cut their energy use per capita about 10-20 percent during 1970-97, while the worst states saw their energy use per capita rise 30-90 percent during this period."

This report was released before the so-called energy "crisis" in California, which was the third-most efficient state. Despite already being a much more efficient state than Wisconsin, California escaped its "crisis" by making even more impressive efficiency gains. For example, California's residents and businesses used 11 percent less electricity in May of 2001 compared to the previous year. This was achieved despite the fact that Californians experienced an unusually high number of 100-degree days during May 2001. In addition, the California Energy Commission reported that Californians used 12 percent less power than expected in June 2001, and peak demand was 14 percent less than had been forecast. By mid-July of 2001 California had an abundance of energy and became a seller rather than a buyer. In August, the U.S. Environmental Protection Agency reported that nearly 30% of the customers of California's three largest electric companies slashed their energy use by 20% or more over the previous twelve months.

Some opinion leaders in Wisconsin seem to assume that there is a one-to-one relationship between energy usage and economic growth. However, this myth was disproved when the U.S. Department of Energy released data for 1998 that showed emissions of carbon dioxide from energy use were only 0.4% above 1997 levels despite robust economic growth of 3.9%. This near-zero increase in carbon dioxide was attributed to random acts of efficiency--i.e., many companies began to realize that energy efficiency measures are a sound business practice and a wise investment.

III. GROUNDS/REASONS FOR THE REQUEST

The Department of Natural Resources has gone to great lengths to document the likely adverse effects of climate change. For instance, the aforementioned publication *Warming Trends* stated: "The great majority of scientific research agrees that between now and the middle of the coming century the globe could very well warm up, and the results could significantly alter life in this little corner of the planet we call home." It then listed these "credible scenarios" for Wisconsin (emphasis DNR's):

- **wetter winters** and **drier summers** with longer, hotter and more frequent heat waves
- weather and climate changes that could require farmers to raise **different crops**
- **dairy cattle** beleaguered by heat exhaustion and growing pest populations
- **poor air quality** and higher concentrations of ground-level ozone, an air pollutant that causes severe health problems
- warmer and more **shallow river waters** – conditions that could hurt populations of cold-water fish like trout

- denser **algae blooms** and lower oxygen levels in ponds and lakes
- more frequent **floods, droughts, forest fires** and damaging storms
- changes in **tree species** that could affect the forestry industry and wildlife populations
- increases in **disease-carrying insect** populations

It is important to note that in late June, then-Attorney General Doyle proposed an environmental agenda which included a pledge to “reduce power plant emissions” and called for “more stringent controls on sulfur dioxide, nitrogen dioxide, and carbon dioxide.”

The Doyle plan recommended action that would reduce carbon dioxide but wasn't identified among the primary strategies evaluated in the DNR's 1998 Wisconsin Greenhouse Gas Emission Reduction Cost Study, which was quoted above. The Doyle plan stated: “Innovative new technologies are making it possible to dramatically reduce our consumption of natural resources. As Governor, Jim Doyle will set a state goal that 10 percent of Wisconsin's energy will be derived from clean, renewable energy sources within ten years. Doyle will help expand the renewable energy market by setting a goal that at least 10 percent of the energy used to run state government offices will come from renewable energy sources by 2005 and 20% by 2007. Doyle will also set a goal that either alternative fuel or hybrid automobiles will make up at least 5% of all new state automobile purchases in 2004, growing 5% a year to 20% by 2007.”

State law currently specifies that 2.2% of energy will come from renewable sources in 2011, so a move to 10% would have a significant impact on carbon dioxide emissions.

In March of 2002, pollution rankings based on U.S. Environmental Protection Agency data for utilities nationwide were released by the National Resources Defense Council, the Coalition for Environmentally Responsible Economics and Public Service Enterprise Group, a New Jersey utility. Wisconsin Energy ranked 29th in the amount of electricity it generated yet ranked 22nd in carbon dioxide. Alliant Energy ranked 32nd in electricity generation but 25th for carbon dioxide. Wisconsin Public Service Corp. ranked 60th in electricity generation but 50th for carbon dioxide. It would be appropriate to require these utilities to move toward the national norm.

For several years Wisconsinites have indicated a preference for reduced emissions from utilities and concern about the climate. Strong support in Wisconsin for renewable energy as an answer to global warming was indicated by a question asked as part of a poll on a variety of topics conducted during the fall of 1999. The “Celebrate 2000” poll conducted for the *Wisconsin State Journal* and the *Capital Times* found that 80% of respondents would be willing to pay an additional 5% or more to heat and light their homes if the source of that power was reusable and reduced greenhouse emissions. Furthermore, 60% would be willing to pay 10% more, and 51% would be willing to pay 20% or more.

A November 1999 poll of registered voters in Wisconsin by Hart Research Associates, a Washington DC firm, found that 60% believed global warming is a very or fairly serious problem. The vast majority--almost nine in ten--recognize that most scientists are in agreement that air pollution from automobiles and power plants is an important factor in causing global warming.

"This poll indicates an increasing public awareness of one of the major environmental issues facing businesses and public policy makers over the next ten years," said DNR Secretary George Meyer.

On April 27, 2001, Wisconsin Public Radio and the St. Norbert College Survey Center released the results of a poll that asked about energy conservation, renewable energy, and power plants. One question asked about "the best way to ensure that Wisconsin would have adequate power in the future." Only 19% thought the best choice would be to "build more power plants and transmission lines." A much higher percentage, 52%, would instead "invest more in alternative energy sources such as solar or wind power," while 25% thought increased energy conservation efforts would suffice.

On August 30, 2001, the *Milwaukee Journal Sentinel* reported on an energy poll commissioned by the Wisconsin Policy Research Institute and conducted by Harris Interactive. When asking about different kinds of power plants, it found that 54% of residents favored more natural gas plants but only 26% favored more coal plants.

Toward the end of 2002, a poll was conducted in Milwaukee and Racine Counties by Wegge Strategic Research for the RESET coalition (Responsible Energy for Southeastern Wisconsin's Tomorrow). 72% understood that a natural gas power plant presents fewer environmental risks than a coal-fired plant and about the same percentage said they would be willing to pay 10% more for their energy if they knew that the way it was produced would not cause additional harm to the environment. 65% of residents were "very concerned" about increased emissions of sulfur dioxide, nitrogen oxides, and carbon dioxide.

If the DNR were to respond to these sentiments by adopting a rule that would impose a declining carbon dioxide cap, it could draw upon its own positive experience as a leader among states on an important atmospheric issue. The DNR's website notes that "Wisconsin passed one of the first and strongest state acid rain control laws in the nation in 1986, making the state a leader in acid rain policy." In the June 1998 issue of *Wisconsin Natural Resources* magazine, DNR's Anne Urbanski wrote: "Early action and partnerships protected northern Wisconsin lakes. This resulted in sound public policy that helped resources, prepared state utility companies and paved the way for a national program to stem acid rain." She also noted a benefit of acting early: "The Wisconsin utilities, which had reduced their emissions earlier, when emission credits were less costly, consequently kept energy costs lower for ratepayers."

This assessment of Wisconsin's acid rain leadership is consistent with a statement in *Warming Trends*: "Responding to the complexities of climate change won't be easy, but the State of Wisconsin has never backed down from a challenge. With cooperation from business, industry and individuals, Wisconsin can continue to serve as a national leader as the global warming issue heats up."

IV. AUTHORITY OF THE DEPARTMENT TO PROMULGATE REQUESTED RULES

Section 285.21(1) (b), Wis. Stats., states: "If an ambient air quality standard for any air contaminant is not promulgated under section 109 of the federal clean air act, the department may promulgate an ambient air quality standard if the department finds that the standard is needed to provide adequate protection for public health or welfare." There is no standard for carbon dioxide under the federal clean air act.

As a gas, carbon dioxide falls under the pertinent definition in section 285.01 (1), Wis. Stats., which is quite broad: "'Air contaminant' means dust, fumes, mist, liquid, smoke, other particulate matter, vapor, gas, odorous substances or any combination thereof but shall not include uncombined water vapor."

Under Chapter NR 438, Chapter NR 438, Wis. Adm. Code, Air Contaminant Emission Inventory Reporting Requirements, the DNR has been a leader among states regarding the required reporting of carbon dioxide emissions. Chapter NR 438 was written pursuant to sections 285.11, 285.13, 285.17, and 299.15(1) and (2), Wis. Stats.

It is also important to point out another definition, in section 285.01 (9): "'Ambient air quality standard' means a level of air quality which will protect public health with an adequate margin of safety or may be necessary to protect public welfare from anticipated adverse effects." As already noted herein, the DNR has gone to great lengths to document "anticipated adverse effects" of climate change in Wisconsin.

The language in Section 285.21(1) (b) indicates that the department would need to find "that the standard is needed to provide adequate protection for public health or welfare." Though greenhouse gases are emitted all over the world and the problem is a global concern, the Department of Natural Resources has consistently recognized the value of even modest state, local and individual actions on related air pollution issues. For example, in the July 30, 2002 *Wisconsin DNR News & Outdoor Report*, the Bureau of Air Management Director Lloyd Eagan stated, "There are many simple actions individuals can do to make Wisconsin's air quality healthier. Individuals can combine errands into one trip, share a ride, refuel in the evening, conserve energy at home and recycle. Every action helps, because it all adds up to cleaner air." The declining carbon dioxide cap proposed by the petitioners would represent a much more meaningful and substantial improvement in Wisconsin's air quality as well as a necessary reduction in its greenhouse gas emissions.

Though laudable, efforts to reduce carbon dioxide within Wisconsin to date haven't amounted to much. An August 15, 2002 *Wisconsin Daily Herald* editorial on global warming on global warming quoted Ms. Egan as saying, "If we don't start to reduce our emissions soon, by the time we've got a crisis, it will be too late to turn things around." However, the editorial, which bore the headline *Reducing emissions takes a local, global effort*, then stated: "Wisconsin has mostly allowed industry to lower greenhouse gas emissions on a voluntary basis. The state has a program to register companies that voluntarily reduce greenhouse gases, in the hope that the federal government will give the companies credit for the reductions if it adopts regulations to curb emissions. That's pretty weak."

Reductions in carbon dioxide by Wisconsin, as proposed by the petitioners, would not be insignificant when viewed in a global context. With only 5 percent of the world's population, the United States produces 20 to 25 percent of the carbon dioxide released from the burning of fossil fuels. According to federal data for 1996, Wisconsin emitted more carbon dioxide than the entire nation of Ireland, about 45 million short tons to 40 million short tons; Ireland has obligations under the Kyoto Protocol because it ratified the treaty on May 31, 2002. Another comparison is worth considering: Data from the 2002 report *First In Emissions, Behind In Solutions* by the National Environmental Trust indicates that Wisconsin emits more greenhouse gas than the entire nation of Pakistan, which has a population near 150 million people. Wisconsin's population is about 5.5 million.

Even if an administrative rule in Wisconsin would not make an adequate dent in global carbon dioxide emissions, the DNR's factsheet for its proposed mercury rule (Publication AM-316 2001) articulated additional advantages that would also apply to a Wisconsin carbon dioxide rule: "Emissions from Wisconsin sources contribute to public health problems in Wisconsin and neighboring states, and vice versa. Wisconsin can help lead a broader mercury reduction initiative. Actions Wisconsin and a handful of other states are taking now influence and inform federal actions to our state's benefit."

The Wisconsin Statutes already acknowledge the value of reducing greenhouse gas emissions, specifically carbon dioxide. Section 1.12 (3) (c) states: "It is the goal of the state to ensure a future supply of wood fuel and reduce atmospheric carbon dioxide by increasing the forested areas of the state." Furthermore, the primary purpose of the aforementioned section 285.78 is to encourage voluntary reductions of greenhouse gas emissions.

Lastly, in the "state energy policy" found in 1.12, Wis. Stats., the list of priorities clearly deems carbon-based fuels to be least desirable, and it explicitly favors natural gas over coal:

(4) Priorities. In meeting energy demands, the policy of the state is that, to the extent cost-effective and technically feasible, options be considered based on the following priorities, in the order listed:

- (a) Energy conservation and efficiency.
- (b) Noncombustible renewable energy resources.
- (c) Combustible renewable energy resources.
- (d) Nonrenewable combustible energy resources, in the order listed:
 - 1. Natural gas.
 - 2. Oil or coal with a sulphur content of less than 1%.
 - 3. All other carbon-based fuels.

Date: April 14, 2003

[Signatures]