

DRAFT INTERIM REPORT

PART ONE – INTRODUCTION; EXECUTIVE SUMMARY

This Interim Report of the Governor’s Task Force on Global Warming is presented to (i) report on the status of the Task Force’s work to accomplish the assignments set out in Executive Order 191, (ii) present the Task Force’s schedule for completion of its work, and (iii) recommend several important, early action policies to the Governor that the Task Force believes should be pursued promptly without waiting for the Task Force’s Final Report this spring. [This Interim Report, including the early recommendations set forth below, has been approved unanimously by the Task Force.]

The recommendations made in Part Three of this Report will enable Wisconsin to make substantial progress in stabilizing and then reducing its greenhouse gas (GHG) emissions. This Report is being issued before the Task Force’s work is complete because it is important that concerted action to address the challenge of climate change commence as soon as possible and the Task Force recognizes that implementation of its recommendations will take time.

While the recommendations being made in this Interim Report concentrate primarily on the electric utility sector, the Task’s Forces Final Report will address all sectors that contribute to GHG emissions and will contain many more recommendations, all of which will be important to addressing this challenge comprehensively and fairly. The final recommended policies will focus on transportation, land use policy, agriculture, forestry and industry and include additional recommendations related to the utility sector. There is no silver bullet solution to climate change. Instead, the Task Force will propose a silver buckshot strategy that requires action across all sectors of the economy to reduce Wisconsin’s emissions substantially, increase the state’s emissions offset capacity and simultaneously grow the state’s economy by taking advantage of the business and job opportunities presented by this challenge. All available, cost-effective tools must be used and everyone must contribute to the solution.

Early action is important for a number of reasons. First, the greenhouse gas (GHG) emissions occurring today will affect climate change for many years into the future. The sooner those emissions are reduced, the easier it will be to address the need for substantial long-term reductions in a cost effective manner. Second, early action will reduce the magnitude and ease the impacts of mandatory requirements that may be imposed in the future and thereby reduce

long-term compliance costs. Third, there is tremendous interest across all sectors of Wisconsin's economy, and among individuals and communities, to act now to become much more efficient in the use of energy and to reduce their carbon footprints. Wisconsin needs to harness this interest and provide the tools and expertise needed to translate it into effective, sustainable action. Finally, as many of Wisconsin's business leaders have recognized, early adoption of sustainability practices and energy efficiency measures to reduce GHG emissions is essential to remain competitive in what will clearly be a carbon-constrained future. The same is true for Wisconsin as a whole.

The recommendations set forth in Part Three of this Report focus on (i) supporting individual, community and business early action, (ii) advancing Wisconsin's strong leadership position on energy efficiency and conservation by moving the state's goals and programs to an even higher level, and (iii) initiating several studies and taking other actions necessary to advance our understanding of key issues related to increasing the state's renewable energy resources and otherwise reducing the carbon emissions associated with electric generation.

These recommendations are listed below and described in Part Three of this Report:

- **Enhanced Energy Efficiency Program**
- **Policy Changes Recommended in Utility Ratemaking**
 - **Aligning Public and Private Interests in Energy Conservation and Efficiency**
 - **Improved and Innovative Rate Design**
 - **Demand Response and Load Management**
- **Residential and Commercial Energy Efficient and Green Building Codes**
- **Government as Leader**
- **Energy Efficiency and Safety Through Lighting for Wisconsin Rental Properties**
- **Comprehensive Initiative to Support Voluntary Long Term Greenhouse Gas Emissions Reductions**
- **Great Lakes Wind Study**
- **Wisconsin Geologic Carbon Sequestration Study**
- **Wind Siting Reform**

PART TWO – DESCRIPTION OF WORK DONE

1. Mission of the Task Force. The Global Warming Task Force (the Task Force) was created by Governor Jim Doyle pursuant to Executive Order 191. The duties of the Task Force pursuant to the Executive Order are as follows:

- Present viable, actionable policy recommendations to the Governor to reduce greenhouse gas emissions in Wisconsin and make Wisconsin a leader in implementation of global warming solutions
- Advise the Governor on ongoing opportunities to address global warming locally while growing our state's economy, creating new jobs, and utilizing an appropriate mix of fuels and technologies in Wisconsin's energy and transportation portfolios
- Identify specific short term and long term goals for reductions in greenhouse gas emissions in Wisconsin that are, at a minimum consistent with Wisconsin's proportionate share of the reductions that are needed to occur worldwide to minimize the impacts of global warming

A number of Task Force members believe that international, federal and regional measures would be more effective and present less competitive risk to Wisconsin businesses than state-by-state actions. However, it is clear that the issue of climate change will be addressed in various ways at all levels, from local to international. The Task Force's charge is to propose policies for Wisconsin, taking account of costs, benefits and economic impacts for the state, as well as of regional initiatives like the recent Midwestern Governors Association Climate Stewardship Platform and recent and proposed federal legislation. Task Force recommendations for Wisconsin will be structured to complement and enhance regional and national efforts. The Task Force believes that the recommendations made in this Interim Report will benefit, not harm, Wisconsin in a variety of ways, helping to meet the challenge of climate change in a cost-effective manner and to keep the state competitive over the long term.

2. Task Force Members. The Task Force consists of a diverse membership representing of a cross-section of Wisconsin's economy and its communities pursuant to Executive Order 191. A list of Task force members and their affiliations can be found in Appendix A

3. Work To Date. Since its appointment, the Task Force has met 17 times in face-to-face sessions that have generally lasted five hours or more. These meetings have been attended not only by Task Force members, but also by members of the general public and by staff from the Governor's office, the Public Service Commission of Wisconsin, the Department of Natural Resources, the Department of Transportation, the Department of Agriculture, Trade and Consumer Protection, the Office of Energy Independence and other agencies. The Task Force

held a lengthy public input session on August 6, 2007 at four locations simultaneously through a video conference arrangement managed by the Public Service Commission of Wisconsin. A second public input session will be held in March, 2008.

The Task Force has established a web site (<http://www.dnr.wi.gov/environmentprotect/gtfgw/>) on which the Task Force agendas, meeting notes, workgroup agendas, proposed policy drafts (templates), public comments on policies and many relevant documents and studies on the issue of climate change are posted. The Task Force process has been transparent and inclusive.

One of the first actions of the Task Force was to appoint workgroups to develop specific policy recommendations for their sectors to reduce the GHG emissions based on three benchmarks. A Technical Advisory Workgroup (TAG) also was appointed to oversee and provide input on technical and data issues related to Wisconsin's GHG inventory, the Reference Case described below and the modeling of policies developed by the workgroups.

The sector workgroups appointed are as follows:

- Energy Conservation and Efficiency
- Utility Generation and Supply-Side Resources
- Transportation
- Industry
- Agriculture/Forestry
- Carbon Tax and Cap-and-Trade

The benchmarks the sector workgroups were asked to use in developing policies to reduce their sectors' emissions were: (i) stabilizing GHG emissions at current levels, (ii) reducing GHG emissions to 1990 levels by 2020, using the Wisconsin GHG inventory prepared by the World Resource Institute for the Department of Natural Resources pursuant to Executive Order 191, and (iii) reducing GHG emissions 60% to 80% below 1990 levels by 2050.

In addition to these core workgroups, several ad hoc groups have been assembled to address specific issues that have arisen through the deliberations of the Task Force. These ad hoc workgroups are made up of Task Force members and interested parties and have focused on narrow, targeted policy areas. The ad hoc workgroups appointed are as follows:

- Low income concerns
- Co-generation
- Waste materials recovery and disposal

- Sustainable communities and behavioral change marketing

Attached in Appendix B to this Interim Report is a list of the Task Force's workgroup co-chairs and the formally appointed members of each workgroup. The workgroups have largely met in person. All meetings have been open to the public and a substantial number of other individuals have participated in workgroup meetings. Each workgroup has met several dozen times in aggregate, devoting very substantial effort and hours to their assignments. The draft policy templates developed by each workgroup have been posted on the Task Force web site for public and Task Force comment, and have gone through several iterations after presentations to the Task Force and receipt of public comments.

In order to meet its obligations in a complete and professional manner, the Task Force retained several consultants with specialized expertise in climate change policies, greenhouse gas inventories and economic modeling. This support has been coordinated by the World Resources Institute of Washington, DC (WRI). WRI has substantial experience working with other states, major corporations and other entities in the United States, as well as internationally, on GHG emissions reduction analyses and strategies.

In addition, the Task Force decided that it needed to develop a detailed Reference Case representing its best estimate of how Wisconsin's economy, energy use and greenhouse gas emissions may develop in the future, given current policies and trends and absent any new policy initiatives to be proposed by the Task Force. The Reference Case will be used as a standardized point of comparison when assessing the economic and emissions impacts of various packages of potential policy recommendations under consideration by the Task Force. The Reference Case is summarized in Section 5 below.

The consulting firm ICF has been retained to prepare the Reference Case and model Task Force policy recommendations, with TAG and WRI oversight. ICF is performing this task using the ENERGY2020 model, one of the very few cross-sector models available that also provides state specific output data on energy and emissions. The TAG has worked diligently with WRI, ICF and the ENERGY2020 modelers to ensure that data used to develop the Reference Case is as current and Wisconsin-specific as possible and that the assumptions employed are reasonable.

Finally, Winrock International has been engaged to evaluate greenhouse gas sources and sinks in the forestry and agriculture sector, an area of important potential for a state like Wisconsin with substantial agriculture and forest industries. Winrock is the world's leading authority on methods for evaluating and quantifying the GHG benefits of improvements in land

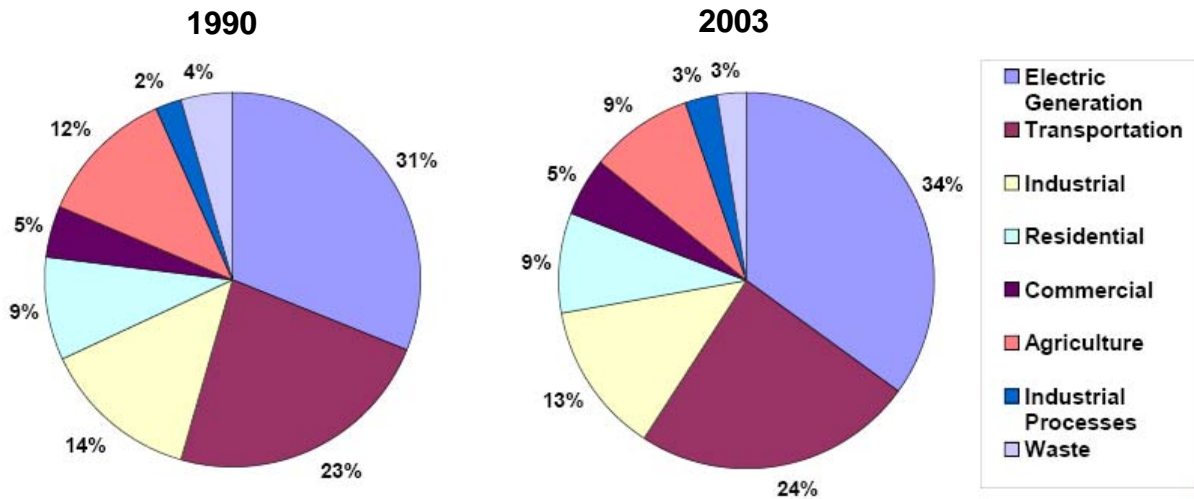
management practices. Their work with the Task Force has identified several potential strategies in conservation tillage and forest practices which can help offset GHG emissions in Wisconsin, as well as provide additional opportunities for terrestrial carbon sequestration.

The development of a well-done Reference Case and careful modeling of the various proposed policies are essential to meeting the Task Force's obligations under the Executive Order. This has been a very time-consuming and intensive process, but is essential for the Task Force to evaluate and reach agreement on credible and well-understood final recommendations and goals. One of the challenges WRI has pointed out is that emissions reduction projections made for individual policies on a stand-alone basis, and related cost and other economic impact estimates, may differ substantially from the results shown by modeling a number of policy recommendations together as a whole, because of duplication, overlaps, policy interactions and cross-sector impacts.

In addition, the recent passage of the federal Energy Independence and Security Act of 2007 has required modifications of certain proposed policies, as well as the Reference Case. Finally, the Task Force is seeking to make its policy recommendations consistent with the recently adopted resolutions of the Midwestern Governors Association. As a result of these requirements, the Task Force anticipates issuing its Final Report in May, 2008.

4. The Wisconsin GHG Inventory. The Wisconsin GHG Inventory (the Inventory) is the responsibility of the DNR under Executive Order 191. It has been prepared by WRI under the direction of the DNR and will be reported directly to the Governor by the DNR. In accordance with Executive Order 191, the Inventory contains a comprehensive assessment of GHG emissions across the entire economy of Wisconsin from 1990 through 2003. Total state emissions during this period increased at an annual average rate of 1.2 percent from 105.9 million metric tons of CO₂ equivalent (MtCO₂e) in 1990 to 123.1 MtCO₂e in 2003. Wisconsin's emissions grew slightly faster than national emissions over the same period (1.1 percent). Emissions increased in nearly all sectors led by electric power generation (2 percent per year), the commercial sector (1.8 percent per year), and transportation (1.3 percent per year). In contrast, industrial emissions peaked in 2000 and have declined substantially in recent years. The relative contributions of each sector's GHG emissions in 1990 and 2003 are summarized below by sector:

Wisconsin GHG Emissions by Sector, 1990 and 2003



Source: WI DNR Inventory as compiled by WRI, 2007

It is important to understand the nature of this Inventory. It is a top-down survey of emissions by sector using the U.S. module of WRI's Climate Analysis Indicators Tool, which is based on federal data primarily from the U.S. Energy Information Agency and tools developed by the U.S. Environmental Protection Agency (EPA). For energy sectors (Electric generation, Transportation, Industrial, Residential and Commercial) fossil fuel use data for each sector is multiplied by an appropriate emission factor to generate GHG emissions estimates. A similar approach incorporating other relevant activity data and emission factors is used for remaining sectors. These estimates yield a broad view of emissions and trends across the state of Wisconsin similar to previous efforts undertaken by DNR, and the efforts of other states and the EPA's national inventory.

The Inventory does not provide detailed facility or subsector emissions data. This makes it fundamentally different from data sources such as Wisconsin DNR's Air Emissions Inventory, the California Climate Action Registry and the forthcoming Climate Registry. These databases provide facility level emissions data based on reporting (whether voluntary or mandatory) by individual entities. The Inventory developed by WRI for DNR is useful for informing climate strategy and planning exercises such as those being undertaken by the Task Force as well as for tracking overall state GHG emissions performance. In fact, in no case has a state taken action to address climate change without first constructing an inventory to understand the general state of emissions and subsequently gathered data of far higher resolution for sectors and activities

targeted by specific policies. However, it is very important to recognize that the Inventory is not sufficient, and should not be, used for any future regulatory purpose.

5. Reference Case. The Reference Case is a modeled projection of how Wisconsin's economy, energy use and GHG emissions may develop in the future absent any new GHG reduction policies. It is based on existing sources, current policies and trends, and approved new generation facilities and includes the effects of the federal Energy Security and Independence Act of 2007 (Energy Act). The Reference Case incorporates a macroeconomic forecast of the state, supplied by the Wisconsin Department of Transportation using the REMI (Regional Economics Model, Inc.) model, to project the economic growth in various sectors.

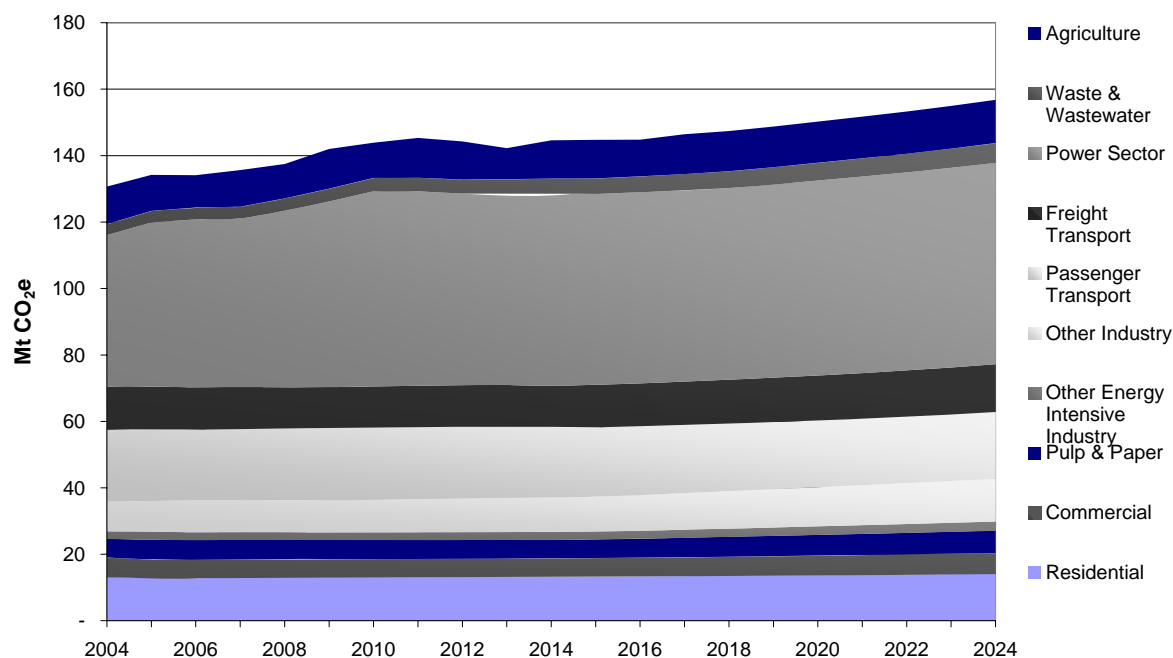
The Reference Case will be used by the Task Force to estimate and evaluate the combined impacts of the policies developed by the workgroups on GHG emissions, jobs and Wisconsin's economy, including energy costs. The Reference Case is very sensitive to the assumptions used and is not presented as an accurate prediction of the future. Instead, it is presented as a reasonable projected scenario to be used in evaluating and recommending policies to meet the requirements of Executive Order 191.

It is essential to recognize the limits of the Reference Case. It has been prepared exclusively for the use of the Task Force to evaluate potential policies and recommendations in exercising its informed judgment based upon the modeling results, qualitative considerations and the expertise of Task Force members and consultants. The Reference Case provides an underlying structure against which to model proposed policies in order to determine directionality and cause and effect relationships of alternative policies. The TAG has worked very hard to be able to recommend unanimously that the Reference Case is satisfactory for this purpose. The TAG also has made it very clear that, given imperfections and concerns related to input data, the sensitivity of the results to the many assumptions used and the complexity of the model itself, the Reference Case should not be used for any purpose other than the Task's Force's evaluation of the relative estimated costs, benefits and emissions, energy and economic impacts of potential policies. In particular, the Reference Case should not be used for any regulatory purpose.

The Reference Case and a detailed accounting of all underlying data sources and assumptions are posted on the Task Force web site. The following paragraphs provide a brief summary of the Reference Case. A more exhaustive review will be included in the Final Report, at which point the Case may be refined.

The Reference Case projects statewide greenhouse gas emissions by sector from 2004 through 2024. Total statewide emissions during the period are projected to increase at an annual average rate of just under 1.0 percent, from 130.7 million MtCO₂e in 2004 to 156.8 MtCO₂e in 2024. This is lower than the 1.2% annual average rate of increase between 1990 and 2003 in the Wisconsin GHG Inventory.

GHG Emissions - Reference Case



GHG emissions are projected to increase in all sectors, except in the passenger transport sector.

- Total GHG emissions in the electric power sector are projected to increase by 1.4 percent per year, from 45.6 MtCO₂e in 2004 to 60.6 MtCO₂e in 2024. As shown in the pie charts which follow, the relative shares of generation output shift, with natural gas and wind becoming relatively larger shares and coal and nuclear, relatively smaller.
- Emissions from passenger transportation are projected to decline over the period from 21.6 MtCO₂e in 2004 to 20.1 MtCO₂e in 2024, due to increased vehicle efficiency and increased use of bio-fuels as mandated under the Energy Act.
- Industrial emissions are projected to grow at an annual average rate of 0.9 percent in the pulp and paper and other energy intensive industry sectors, and by 1.8 percent in the other industry sector. The most rapid growth occurs in the out-years, which is largely driven by the macroeconomic data supplied by the REMI model. Because emissions in

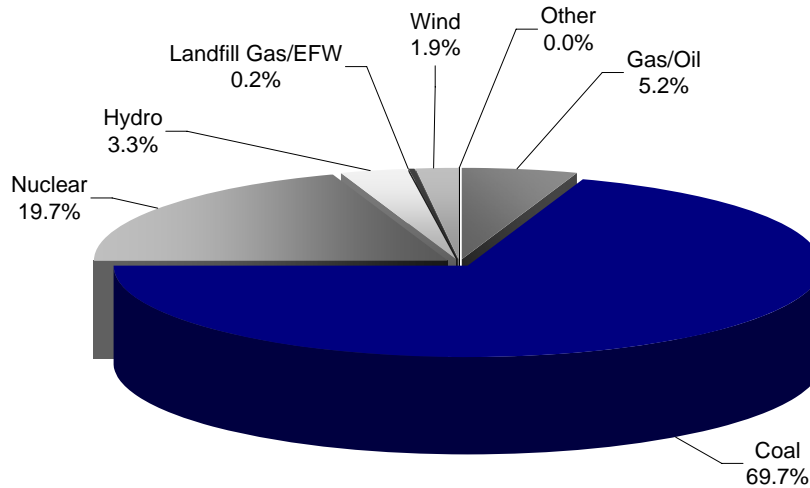
this sector have actually been declining in recent years, this projection is subject to question. Like other output from the Reference Case, it is driven by the longer term economic growth assumptions used and may or may not turn out to be accurate.

- The Reference Case includes an estimated level of carbon sequestration from forested lands of an average 8.2 MtCO₂e per year, based on work prepared for the Task Force by Winrock International.
- The Reference Case does not include estimates of carbon sequestration from agricultural and other land types because there is no historic data on the carbon impact of these land uses and land use changes.

Generation by Type - 2004

Share of Generation (GWh) Output

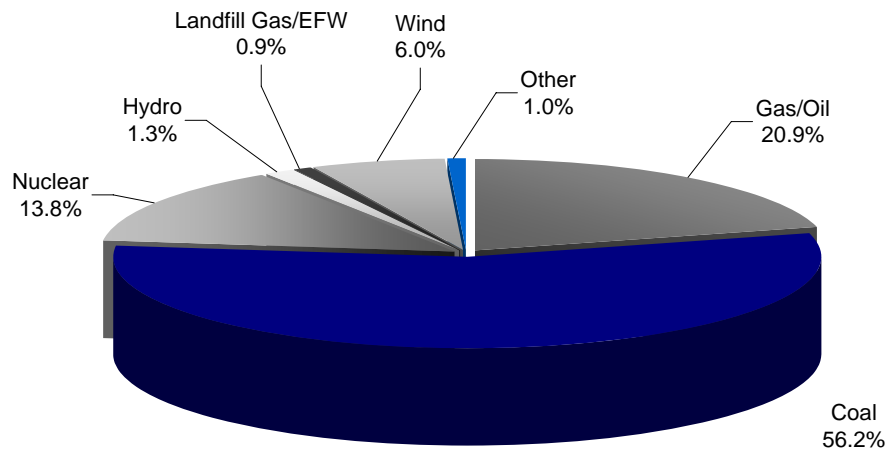
Total Generation in 2004: 60,445 GWh



Generation by Type - 2024

Share of Generation (GWh) Output

Total Generation in 2024: 92,704 GWh



Next Steps. Through its workgroups, the Task Force has developed a number of policies in each sector to reduce GHG reductions directly, or to enable such reductions to occur. Policies

considered also are aimed at enabling Wisconsin to take advantage of the business opportunities presented by the need to reduce emissions, including growing (i) our biofuel and bio-energy industries and (ii) our terrestrial carbon sequestration and offset resources, and (iii) jobs and business opportunities related to addressing climate change. A number of the policies which appear to have the potential to produce significant emissions reductions are being modeled against the Reference Case. Some policies that have been developed are not amenable to modeling, but are expected to be included in our recommendations.

In addition, the Task Force will make recommendations to enable Wisconsin to better track GHG emissions in various sectors and subsectors in the future. Better data is needed to evaluate the effectiveness of policies adopted to reduce emissions, for new policy development and for the credibility of any future regulatory programs. Also, it is clear that much better data on carbon sequestration from agricultural, forestry and other land uses and changes is needed. These matters will be addressed in the Final Report.

The Task Force will use the Reference Case, the Energy 2020 modeling results and expert advice to evaluate carefully the estimated costs and benefits of proposed policies in order to make recommendations in its Final Report that are viable, cost-effective and aggressive. These recommendations will take account of federal policies and developments, as well as development in other states and the initiatives being undertaken under the auspices of the Midwestern Governors Association. Many of the policies developed to date have unanimous, or very substantial, support among Task Force members across sectors. Certain policies, or key elements of certain policies, are controversial. Where workgroups have not been able to reach consensus on policies, or important elements of policies, the issues in dispute are being brought to the full Task Force for resolution. In some cases, resolving these differences will not be possible until modeling results are complete and relative costs and benefits are identified. While the Task Force will strive to achieve consensus on all final recommendations, where a policy is included in the Final Report as to which there is disagreement, this fact will be noted and an opportunity provided for the presentation of minority views.

Analysis of the Reference Case, the modeling results and the varied knowledge and experience of Task Force members, taking account of public comments, also will be used by the Task Force to identify specific short-term and long-term goals for reduction of GHG emissions in Wisconsin as directed in Executive Order 191. These goals will be accompanied by a wide variety of sector and cross-sector policy recommendations to enable the state to meet these goals.

PART THREE – CURRENT RECOMMENDATIONS

The Task Force believes that the most important first step Wisconsin can take to achieve early GHG reductions is to dramatically increase energy conservation and efficiency. This is essential because Wisconsin must import almost all of the fuel it depends upon today, new power generation is likely to be very costly and Wisconsin lacks the wind resources of states to the west and the geologic carbon sequestration potential of states to the south. While the state's future renewable resource potential appears to be substantial through the development of bio-energy resources and Great Lakes wind, these resources will take time to become commercial. In the meantime, efficiency must be our top priority.

It costs much less to save a kilowatt-hour of electricity than it does to build a new power plant to produce that kilowatt-hour, particularly from a new power plant with no or low GHG emissions. Substantially increasing energy efficiency use also is essential to keep Wisconsin industry competitive. Reducing industrial energy consumption not only will provide a very cost-effective way to meet conservation and efficiency goals, but also will benefit all energy users by helping to defer the need for new, expensive power plants, while helping industry remain competitive by lowering operating costs.

The recommendations on conservation and efficiency set forth below include a strategy to ensure that Wisconsin residential and commercial building codes are continuously improved to help lead the nation. They also advocate important changes in utility regulation that are directly linked to the Task Force's recommendation to increase conservation and efficiency programs in order to meet aggressive, new goals and provide real customer benefits on a cost-effective basis. The goals proposed, and the related regulatory policy changes, present complex, inter-related issues that must be resolved by the Public Service Commission of Wisconsin (PSCW). Given the importance of these policies, the Task Force believes that the Commission should begin this work now, and not wait for the Task Force's Final Report. In doing so, the Commission will need to balance the need to (i) adopt and achieve aggressive goals to reduce energy consumption that will in turn substantially reduce GHG emissions and also help keep long-term utility costs down, (ii) mitigate the cost impacts of these programs on low and fixed income individuals and on businesses that operate in highly competitive environments, and (iii) maintain a healthy economy, including a financially strong utility industry able to meet the future energy needs of the state on a highly reliable, cost-competitive basis and provide utilities with

appropriate incentives and earnings opportunities needed to capture all cost-effective conservation and efficiency opportunities available.

The recommendations set forth below also include policies to (i) grow Wisconsin's economy by providing workforce training and pursuing new business opportunities created by the need to reduce GHG emissions and develop offset resources (ii) have the state take prompt action to support individual, community and business voluntary actions to reduce the state's emissions, while providing strong state leadership by reducing its own carbon footprint, and (iii) undertake certain studies, and other actions, to facilitate the development of renewable resources and better understand the issues the state faces in utilizing geologic carbon sequestration for new fossil fuel electric generation.

With this background, the Task Force has reached [unanimous] agreement on certain major policy recommendations to present to the Governor at this time. These policy recommendations are summarized below. They are supported and explained in detail in the policy templates attached to this Report as Appendix C. It is important to note that the GHG emission reduction and cost estimates in these templates are rough, first cut projections only and have been made without the benefit of the Reference Case and the detailed modeling now beginning. The Final Report of the Task Force, where appropriate, will modify these estimates based upon modeling results and other factors and make related adjustments to its early action recommendations.

On this basis, the Task Force's policy recommendations presented at this time are:

1. Enhanced Energy Efficiency Program

This policy recommendation proposes a significant increase in the state's energy efficiency and conservation programs undertaken pursuant to Act 141. Rather than focusing on a spending cap, the policy recommends that the state adopt a goal to reduce electric load by 2%, and natural gas load by 1%, per year by 2015, through increasing Focus on Energy, utility and self-directed industrial customer programs and through implementation of the ratemaking policy recommendations described in Recommendation 2 below. This policy sets forth a number of actions to be considered by the PSCW in implementing the proposed increase in programs under Act 141 in order to mitigate cost impacts on customers and maximize long-term cost benefits. The Task Force believes that converting to a savings goal rather than a spending target is very important and that the recommended ramp-up in programs will create substantial new job opportunities in the state. The PSCW will be responsible for determining how this

recommendation can be implemented expeditiously in a manner that is cost-effective and fair to different stakeholders, minimizing rate impacts and maximizing benefits.

2. Policy Changes Recommended in Utility Ratemaking

a) Aligning Public and Private Interests in Energy Conservation and Efficiency

In order to meet the conservation and efficiency goals set forth above in Recommendation 1, the Task Force recommends that the PSCW investigate and adopt innovative utility ratemaking approaches that promote conservation and efficiency programs by removing the disincentives that exist under current ratemaking policies for utilities to implement their own programs and support statewide programs, and provide in their place positive incentives for utilities to aggressively pursue conservation and efficiency opportunities. The objective of these changes should be to provide long-term customer benefits and maintain a healthy utility industry. In making this recommendation, the Task Force recognizes that some proposals to achieve the objectives of this recommendation such as decoupling revenues from consumption will be controversial and strongly opposed by certain stakeholders, including large industrial customers. Decoupling is one of a number of possible approaches to achieving these objectives that the PSCW may investigate.

b) Improved and Innovative Rate Design

This policy recommends that, in addition to altering the current ratemaking paradigm which incents construction of new plant over measures to reduce load, the PSCW investigate and adopt innovative rate designs that provide more accurate price signals to customers to incent reductions of GHG emissions associated with their energy consumption.

c) Demand Response and Load Management

This policy recommends the development and implementation of a number of programs by the PSCW that will encourage and enable customers to reduce their contributions to utility peak demand and thereby lessen GHG emissions and the need for new energy infrastructure and to respond to signals in ways that will help shape utility load resulting in a more efficient electric system.

3. Residential and Commercial Energy Efficient and Green Building Codes

This policy recommends that Wisconsin pass legislation that would incorporate the latest International Energy Conservation Code (IECC) into Wisconsin's residential/multi-family and commercial energy code within eighteen months of promulgation, unless affirmative action is taken to customize code provisions for Wisconsin needs within that eighteen-month period. The policy is intended to ensure that Wisconsin remains a national leader in this area, given the very significant impact increasing building efficiency will play in reducing long-term GHG emissions. The ultimate aim of this effort would be to achieve net zero energy commercial buildings by 2030 and residential buildings within 10 years thereafter. These goals will drive the development of effective, innovative policies for use of customer-side renewable applications. The policy contains a second recommendation to establish a voluntary, high performance, green building code, with incentives, to help the state and others achieve even greater efficiency savings from new buildings. Early action is important because building energy efficient structures is less costly than retrofitting buildings and greater GHG reductions will be gained.

4. Government as Leader

This policy recommends a number of steps for the state as an entity to be a recognized leader in the reduction of its own GHG emissions, not only through energy conservation measures, but also through initiatives to reduce GHG emissions by state government (including energy generation, building efficiency, transportation use, and purchasing policies) as well as publicly recognizing the value of GHG reduction measures. Under the policy, the state as a whole, and its agencies and universities, will track their GHG emissions, establish specific reduction goals and implement plans to meet those goals, thereby demonstrating the state's leadership across the board.

5. Energy Efficiency and Safety Through Lighting for Wisconsin Rental Properties

This policy recommends that the state adopt legislation that requires rental properties to install energy efficient lighting in common areas and all mounted fixtures (other than fixtures controlled by dimmer switches and fixtures in appliances). It also would require exit lights to be lit by light emitting diode bulbs.

6. Comprehensive Initiative to Support Voluntary Long Term Greenhouse Gas Emissions Reductions

The Task Force recommends that the state implement the Wisconsin Voluntary Greenhouse Gas Reduction Initiative under the auspices of the Office of Energy Independence.

The Initiative's purpose would be to motivate and enable individuals, communities, farms and other businesses to reduce their GHG emissions through a variety of strategies, as well as to assist Wisconsin in growing its economy through the business opportunities arising out of the need to address climate change. The proposed policy advocates efforts funded by both the public and private sectors (including seeking major foundation grants) that will result in long-term reductions of emissions and help achieve energy independence through voluntary action. The Initiative would develop and implement programs to (i) encourage and enable individuals to reduce their GHG emissions contributions, (ii) provide expert assistance and support for community-wide programs to achieve energy independence and reduce emissions and costs, (iii) provide expertise and support to the state's small and medium-sized businesses, including farms, in their voluntary efforts to reduce their carbon footprints, and (iv) provide workforce training and business development assistance to take advantage of the opportunities arising out of the need to transition to a low carbon economy.

This policy recognizes that mandated measures, such as appliance efficiency standards and any carbon cap-and-trade system, will take a number of years to implement. Many businesses, individuals and communities desire to move forward now. The proposed Initiative would provide the support necessary for them to do so and mount a state-wide campaign to motivate broad-based changes in consumer behavior and choices necessary to make effective many of the policies the Task Force will propose.

7. Great Lakes Wind Study

The Task Force recommends that the state, through the relevant state agencies, convene a study group to look at the technical and economic potential for developing wind energy on Lake Michigan and Lake Superior. The group, where appropriate, should work with other Great Lakes states. While terrestrial wind resources continue to provide the majority of renewable energy to Wisconsin, this state does not have land-based wind of the same quality as its neighbors to the west. As states increase their renewable portfolio standards, thus increasing the costs and decreasing the availability of terrestrial wind megawatts, Wisconsin should examine the potential that may lie only a few miles off its shores. This study should be completed by December 31, 2008

8. Wisconsin Geologic Carbon Sequestration Study

The Task Force recommends that the Public Service Commission and the DNR convene a special commission to explore the potential for geologic carbon sequestration for carbon

dioxide produced by Wisconsin's electricity generation fleet. While it appears unlikely that Wisconsin has suitable geologic repositories available for CO₂ injection, this option should be explored, as should the more likely possibility of piping CO₂ to underground injection sites in an adjacent state, or the importation of low carbon gaseous fuels produced in connection with geologic carbon sequestration in an adjacent state. Planning for a future that may rely upon geologic sequestration cannot get started too early. The economic, geologic, and engineering hurdles are daunting. This special commission should report back to the Governor before year-end 2008.

9. Wind Siting Reform

This policy recommends that legislation be adopted to require the Public Service Commission to create uniform standards for the siting of large and small wind systems. Additionally, it calls for a modification of the siting approval process to provide for needed review by the Public Service Commission as appropriate. These changes are suggested because of varying application by local units of government of the existing law on siting of small wind systems. Uniformity in the standards and process will ensure equity to developers and all local communities, and will enable needed wind projects to be built safely in Wisconsin to support the state's renewal portfolio standard.

PART IV – CONCLUSION

Conclusion. In closing, the members of the Task Force appreciate very much the opportunity afforded by the Governor to work on the very important issues before us. We are committed to present a comprehensive Final Report to the Governor in the second quarter of 2008 that meets the full requirements of the Order.

APPENDIX A — MEMBERS OF THE WISCONSIN GLOBAL WARMING TASK FORCE AND SUPPORTING WORKGROUPS.

Members of the Wisconsin Global Warming Task Force

Co-Chairs:

Tia Nelson, Executive Secretary of the Board of Commissioners of Public Lands

Roy Thilly, CEO Wisconsin Public Power

Members:

Daniel Ariens, Ariens

Forrest Ceel, IBEW

Jeff Crawford, Forest County Potawatomi

Kristine Euclide, Madison Gas & Electric

Jonathan Foley, UW-Madison

Jon Geenen, United Steel Workers

Emily Green, Sierra Club

Charlie Higley, Citizen Utility Board

Steve Hiniker, 1000 Friends of Wisconsin

Mary Jean Huston, The Nature Conservancy

Scott Johnson, SC Johnson

Margi Kindig, Citizen

Gale Klappa, We Energies

Gary Malkus, General Motors - Janesville

C. David Myers, Johnson Controls

Representative Phil Montgomery

Bill Oemichen, Wisconsin Federation of Cooperatives

Senator Jeff Plale

Keith Reopelle, Clean Wisconsin

Tom Scharff, NewPage

Henry Steuber, General Electric - Oil & Gas Division

Susan Stratton, Energy Center of Wisconsin

Barbara Swan, Alliant Energy

Michael Swenson, Xcel Energy - NSP Wisconsin

John Vrieze, Dairy Business Association

Larry Weyers, Integrys Energy Group

Lynn Wilson, Plum Creek Timber

APPENDIX B — SUPPORTING MEMBERS OF THE TASK FORCE WORKGROUPS

Carbon Tax/Cap and Trade Work Group

Co-Chairs

- Keith Reopelle, Clean Wisconsin
- Barb Swan, Alliant Energy

Members

- Jon Foley, UW-Madison
- Charlie Higley, Citizens Utility Board
- Steve Hiniker, 1000 Friends of Wisconsin
- Greg Bollom, Madison Gas & Electric
- John Clancy, Forest County Potawatomi Community
- Dennis Derricks, Wisconsin Public Service Corp.
- Barbara Freese, Union of Concerned Scientists
- Joe Kramer, Energy Center of Wisconsin
- Nina Plaushin, Wisconsin Public Power Inc.
- Annabeth Reitter, NewPage
- Kris McKinney, We Energies
- Phil Molien, Gen-Sys / Dairyland Power Cooperative
- James Turnure, Xcel Energy

Electric Generation and Supply Work Group

Co-Chairs

- Kathy Lipp, Alliant Energy
- Peter Taglia, Clean Wisconsin

Members

- Dave Bender, Sierra Club
- Forrest Ceel, IBEW 2150
- John Clancy, Forest County Potawatomi Community
- Tim Clay, Wisconsin Federation of Cooperatives
- Charlie Higley, Citizens Utility Board
- Andy Kellen, Wisconsin Public Power Inc.
- Charles Matthews, We Energies
- Rep. Phil Montgomery, Wisconsin Assembly
- Adam Raschka, Rep. Montgomery's Office
- Scott Neitzel, Madison Gas & Electric
- Tom Smies, Wisconsin Public Service Corp.
- Todd Stuart, Wisconsin Industrial Energy Group
- Jim Turnure, Xcel Energy
- Michael Vickerman, RENEW Wisconsin
- Lynn Wilson, Plum Creek Timber

Conservation and Energy Efficiency Work Group

Co-Chairs

- Kristine Euclide, Madison Gas & Electric
- George Edgar, Wisconsin Energy Conservation Corporation

Members

- Margi Kindig, Citizen
- Sen. Jeff Plale, Wisconsin Senate
- Jennifer Oechsner, Sen. Plale's Office
- Tom Scharff, NewPage
- Susan Stratton, Energy Center of Wisconsin
- Bruce Nilles, Sierra Club
- Janet Brandt, Wisconsin Energy Conservation Corporation
- Bruce Caucutt, Alliant Energy
- Jean Derfus, Xcel Energy
- Roman Draba, We Energies
- Nicholas Hall, Consultant
- Beata Kalies, WI Electric Cooperative Association
- Katie Nekola, Clean Wisconsin
- Clay Nesler, Johnson Controls
- Barb Nick, Wisconsin Public Service Corp.
- Mike Stuart, Wisconsin Public Power Inc.
- Mike Thompson, Trane Commercial Systems
- Peter Vogel, Vogel Builders
- Dan York, American Council for an Energy Efficient Economy

Forestry and Agriculture Work Group

Co-Chairs

- Bill Oemichen, Wisconsin Federation of Cooperatives
- Todd Holschbach, The Nature Conservancy of Wisconsin

Members

- Michael Bolton, United Steel Workers
- Susan Crane, We Energies
- Jeff Crawford, Forest County Potawatomi
- David Donovan, Xcel Energy
- Dennis Frame, Discovery Farms
- Earl Gustafson, Wisconsin Paper Council
- Dr. Chris Kucharik, Nelson Institute, University of Wisconsin
- George Meyer, Wisconsin Wildlife Federation
- David Mladenoff, UW-Madison
- Pam Porter, Consultant
- Gene Roark, Wisconsin Woodland Owners
- Alice Thompson, Thompson & Assoc. Wetlands Services
- John Vrieze, Vrieze Farms
- Lynn Wilson, Plum Creek Timber
- Ron Zillmer, Mid-State Technical College
- Paul Zimmerman, Wisconsin Farm Bureau Federation

Industry Work Group

Co-Chairs

- Caryl Terrell, Sierra Club
- Paul Linzmeyer, Ecolution, Inc.

Members

- David Boyd, formerly of Briggs and Stratton
- Tim Clay, Wisconsin Federation of Cooperatives
- Charley Cole, We Energies
- Dave Crass, Michael Best & Friedrich
- Douglas Drake, formerly of United Steel Workers
- Steve Dunn, UW-Oshkosh
- Mike Gromacki, Cook Composites and Polymers
- John Imes, Wisconsin Environmental Initiative
- Scott Johnson, SC Johnson
- Rick Koehl, Kohler Company
- Scott Manley, Wisconsin Manufacturers and Commerce
- Joe Muehlbach, Quad Graphics
- Dave Oughton, Mercury Marine
- John Piotrowski, Packaging Corporation of America
- Nina Plaushin, Wisconsin Public Power Inc.
- Satya Rhodes-Conway, UW Center on Wisconsin Strategy
- Clare Stapleton-Concord, Office of the Commissioner of Insurance
- Steve Steinpreis, Plymouth Foam, Inc.
- Dave Stringham, AH West Group
- Ed Wilusz, Wisconsin Paper Council
- Ken Zak, MEGTEC

Transportation Work Group

Co-Chairs

- Steve Hiniker, 1000 Friends of Wisconsin
- John Pearse, General Motors

Members

- Kristine Euclide, Madison Gas & Electric
- Margi Kindig, Citizen
- John Antaramian, Mayor, City of Kenosha
- Ed Beimborn, University of Wisconsin
- Dennis Damman, Schneider National
- Chris Deisinger, Union of Concerned Scientists
- Mike Elder, Landmark Services Cooperative
- Pat Goss, Wisconsin Transportation Builders Association
- Matt Hauser, WI Petroleum Marketers & Convenience Store Association
- Chuck Kamp, City of Madison
- Rob Kennedy, University of Wisconsin
- Gary Kramer, Badger State Ethanol
- Dave Merritt, Dane County Clean Air Coalition
- Nina Plaushin, Wisconsin Public Power Inc.
- Eric Sundquist, UW Center on Wisconsin Strategy

- Kerry Thomas, Transit NOW
- Craig Thompson, Transportation Development Association
- Francis Vogel, Wisconsin Clean Cities

Ad-hoc Low Income Work Group

Chairperson

- Forrest Ceel, IBEW 2150

Members

- Sue Brown, Department of Administration
- Earl Buford, BIG-STEP, Wisconsin Regional Training Partnership
- Henry Hamilton, NAACP Environmental Justice Task Force
- Joel Haubrich, We Energies
- Robert Jones, Wisconsin Community Action Program Association
- Peter McAvoy, Sixteenth Street Community Health Center
- Vincent Montgomery, Social Development Commission
- Mike Mueller, We Energies
- Jim Phillippo, Wisconsin Public Service Corp.
- Jackie Reynolds, PSC
- Satya Rhodes-Conway, UW Center on Wisconsin Strategy

Ad-hoc Co-Generation Work Group

Chairperson

- Andy Kellen, Wisconsin Public Power Inc.

Members

- Rob Benninghoff, Wisconsin Public Service
- George Edgar, Wisconsin Energy Conservation Corporation
- Scott Neitzel, Madison Gas & Electric
- Jennifer Feyerherm, Sierra Club
- Tom Scharff, NewPage
- Todd Stuart, Wisconsin Industrial Energy Group
- Peter Taglia, Clean Wisconsin
- Tom Tucker, Kinergetics, LLC

Ad-hoc Waste Materials Recovery and Disposal Work Group

Chairperson

- Keith Reopelle, Clean Wisconsin

Members

- Dave Anderson, Fox River Fiber
- John Clancy, Forest County Potawatomi Community
- David Donovan, Xcel Energy
- Steve Hiniker, 1000 Friends of Wisconsin
- Lynn Morgan, Waste Management Inc.
- Bill Oemichen, Wisconsin Federation of Cooperatives
- John Piotrowski, Packaging Corporation of America
- Genise Smith-Watkins, PepsiCo

Technical Advisory Group

Co-Chairs

- George Edgar, Wisconsin Energy Conservation Corporation
- Kris Krause, We Energies

Members

- Lewis Gilbert, Nelson Institute, University of Wisconsin
- Andy Kellen, Wisconsin Public Power Inc.
- Joe Kramer, Energy Center of Wisconsin
- Craig Loehle, National Council for Air and Stream Improvement
- Paul Meier, University of Wisconsin
- Annabeth Reitter, NewPage
- Tom Smies, Wisconsin Public Service Corp.
- Peter Taglia, Clean Wisconsin

APPENDIX C — RECOMMENDED POLICIES

[Attach cleaned-up templates]