



Second Biennial Report
of the
Climate Neutral
Working Group



~Presented to~
Governor James H. Douglas



April 2007

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Commonly Used Acronyms and Abbreviations

BGS	Department of Buildings and General Services
CO ₂	Carbon Dioxide
CNWG	Climate Neutral Working Group
ECR	Eastern Climate Registry (formerly Regional Greenhouse Gas Registry – RGGR)
FBR	First Biennial Report of the Climate Neutral Working Group (issued April 2005)
GCCC	Governor’s Commission on Climate Change
GHG	Greenhouse Gas
HOV	High Occupancy Vehicle (i.e., multiple persons traveling in one vehicle)
NEG/ECP	Conference of the New England Governors & Eastern Canadian Premiers
RGGI	Regional Greenhouse Gas Initiative
SAEP	State Agency Energy Plan
SOV	Single Occupancy Vehicle (i.e., one person traveling in one vehicle)
TDM	Transportation Demand Management
UA	Unlimited Access Program
VMT	Vehicle Miles Traveled
VTrans	Vermont Agency of Transportation (also AOT)



Executive Summary

This second biennial report of the Climate Neutral Working Group (CNWG) is intended to provide a concise update regarding the science of climate change, catalog the ongoing work of the CNWG and synergistic parallel initiatives, and indicate progress made towards attaining the goals of Executive Order #14-03. Since April 2005, Vermont State Government has implemented a number of strategies and initiatives that will enable it to make progress toward attaining its emission reduction goals. In addition to initiatives that reduce emissions, Vermont State Government has also begun implementing strategies that will improve its ability to quantify and document such emissions reductions in the future.

In order to achieve annual GHG emissions reductions of the magnitude required to attain the goals, it is vital that BGS and other state agencies continue to implement existing as well as develop new innovations in these sectors. In addition, there are still substantial, untapped GHG emissions reductions to be realized in the employee commuting sector.

Recommended actions for reduction of greenhouse gas (GHG) emissions are presented in this report for consideration and implementation during 2007 by the executive branch of the Vermont State Government. Recommendations are presented in more detail in Chapter IV. The major recommendations of this report include both recommendations that will help Vermont State Government reduce its GHG emissions, as well as several recommendations for consistent broader-scale actions that state government has under its purview: These recommendations include:

- ④ The Agency of Natural Resources (ANR) should endeavor to complete the rule-making process formalizing implementation of the Regional Greenhouse Gas Initiative (RGGI) in Vermont.
- ④ ANR should continue its support for the multi-state Eastern Climate Registry (ECR), and work to encourage companies to report their national GHG emissions data into the system to demonstrate environmental leadership, manage carbon-related risks, increase operational efficiency, and document early action.
- ④ Vermont State Government should undertake additional efforts to support the State Agency Energy Plan (SAEP) to ensure that individual Agency Implementation Plans (AIPs) will be effective and implemented appropriately.
- ④ Establish an exploratory committee to:
 - Work with Green Mountain Transit Agency (GMTA) and the Chittenden County Transportation Authority (CCTA)¹ on a pilot project to examine existing bus

¹ GMTA is managed by the Chittenden County Transportation Authority (CCTA), Vermont's largest and only public transportation authority. (see <http://www.cctaride.org/main.php>)

routes and state employee home-work journeys to identify opportunities to make these commutes more efficient, more economical and less polluting.

- Explore the possibility of initiating an Unlimited Access (UA) program with GMTA for state employees, with a goal of expanding to willing employees and transit providers in other areas of the state.

Over the course of the next two years, Vermont State Government should further evaluate and implement as many of the recommendations contained herein, as well as in the First Biennial Report, as possible. This will allow state government to initiate and maintain the downward trend in its GHG emissions necessary to meet the goals of Executive Order #14-03.

Chapter 1: Introduction

Since the release of the First Biennial Report (FBR) of the Climate Neutral Working Group (CNWG) in April 2005², a number of new scientific reports have enhanced and reinforced our understanding of climate changes brought about through the phenomenon of global warming. Climate change skeptics have often pointed to the discrepancy in the rate of global average temperature increase for the Earth's surface (measured by thermometers) compared with higher levels in the atmosphere (measured by satellites). In May 2006, scientists involved with the U.S. Climate Change Science Program reported that these discrepancies were in fact due to errors found in various satellite datasets. Corrections have been made to the data and surface and satellite measurements now exhibit very similar warming trends, and deliver a clear, consistent message that our planet is warming.³

Recently, the National Research Council responded to a request from the United States Congress to reexamine the conclusions of important, fundamental climate change research done in the late 1990s. Congress requested this report last year after a controversy arose regarding Earth surface temperature reconstructions that have been used to illustrate the trend of anthropogenic global warming since the industrial revolution. The rigorous scientific review was detailed in a report⁴ released in June 2006, which concluded that:

- ④ There is sufficient evidence from tree rings, boreholes, retreating glaciers, and other "proxies" of past surface temperatures to say with a high level of confidence that the last few decades of the 20th century were warmer than any comparable period in the last 400 years
- ④ ...surface temperature reconstructions for periods before the Industrial Revolution -- when levels of atmospheric greenhouse gases were much lower -- are only one of multiple lines of evidence supporting the conclusion that current warming is occurring in response to human activities, and they are not the primary evidence.

Conclusions of these studies and numerous others continue to deliver a clear message that only substantial reductions in greenhouse gas (GHG) emissions can begin to slow the warming trend and the associated consequences for our planet. As a result, Vermont state government continues its efforts toward improved energy efficiency, reduced energy consumption, and lower GHG emissions.

² See http://www.anr.state.vt.us/air/Planning/docs/CNWG_1st_Biennial_Report.pdf

³ *Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences*. Thomas R. Karl, Susan J. Hassol, Christopher D. Miller, and William L. Murray, editors, 2006. A Report by the Climate Change Science Program and the Subcommittee on Global Change Research, Washington, DC
<http://www.climatechange.gov/Library/sap/sap1-1/finalreport/default.htm>

⁴ *Surface Temperature Reconstructions for the Last 2,000 Years*. June, 2006. A Report by The National Research Council. <http://www.nap.edu/catalog/11676.html>

Chapter II: Progress toward Greenhouse Gas Emission Reduction Goals (Strategies Implemented & Expected Benefits)

This Second Biennial Report is intended to provide a concise but comprehensive update on progress toward meeting the goals outlined by Executive Order #14-03, as well as other priorities identified in the FBR.

The First Biennial Report provided both a “1990 base year” and a recent year (2003) inventory of carbon dioxide (CO₂) emissions from Vermont State Government buildings and operations. The inventories included emissions associated with electricity consumption, space heating, state fleet vehicles, and employee commuting. The report also outlined the magnitude of CO₂ emissions reductions required to meet the Executive Order #14-03 short term goals of reducing emissions by 25% below 1990 levels by 2012.

Since April 2005, Vermont State Government has implemented a number of strategies and initiatives that will enable it to make progress toward attaining its emission reduction goals. In addition to initiatives that reduce emissions, Vermont State Government has also begun implementing strategies that will improve its ability to quantify and document such emissions reductions in the future. Many of the initiatives that are already underway are outlined below courtesy of the Department of Buildings and General Services (BGS).

Infrastructure: Electricity Consumption⁵

- 🌐 *Installing sub-meters for electrical and condensate readings for the Montpelier and Waterbury State Complexes (\$400,000)*
- 🌐 *Investigating replacement of photovoltaic cells in Middlesex*
- 🌐 *Alburgh Wind Turbine and educational kiosk. The system, with its 10 Kilowatt rating, will offset approximately 250 tons of greenhouse gases over its 30-year operating life. (see <http://www.vtwindprogram.org/proddir/prod/168/9/>)*
- 🌐 *BGS receiving federal grant money for Renewable Energy Research & Development.*
- 🌐 *Performance contract Waterbury, Montpelier and Middlesex Complex*

Infrastructure: Space Heating⁵

- 🌐 *Windows at Waterbury State Office Complex (WSOC) \$400,000*
- 🌐 *Windows at Middlesex State Police Barracks*
- 🌐 *Capital Complex district heating system. Continued investigation and exploration of benefits to an expanded district heating system with the City of Montpelier and other large energy users in the immediate area.*
- 🌐 *Revised the Statehouse chiller system: (LPA; liquefied pump application) with rebate and incentive provided through Efficiency Vermont, payback 6 years +/-.*

Transportation: Official State Business (Vehicles for Passenger Transport)⁵

- 🌐 *BGS Fleet Program added 25 Honda Civic Hybrids and 75 Ford Focus to the fleet*
- 🌐 *Cost modeling has started for an intercomplex Central Vermont Shuttle Service*

⁵ Data courtesy of the Department of Buildings and General Services (BGS)

- ④ A complementary “No-Idling” Campaign is in development

Transportation: Official State Business (Vehicles for Non-Passenger Transport)

- ④ A CNWG subcommittee to Reduce Non-Passenger Vehicle Emissions (RNVEW) met in June 2005 to discuss potential ideas, pilot projects, and strategies (both existing and future) that will promote the highest efficiency, lowest GHG emissions and lowest cost possible to the Vermont state government non-passenger vehicle fleet. According to the FBR, these vehicles are responsible for roughly 87% (~35,700 tons) of the state fleet annual CO₂ emissions.
 - Ongoing VTrans strategies to reduce fleet CO₂ emissions that were discussed include:
 - Rigorous regular maintenance (improves fuel economy, reduces diesel particulate emissions, etc. It is important to note that diesel engines emit roughly half of the black carbon in the US. While black carbon is not a greenhouse gas, it does act in a similar manner by having a large and fast acting warming impact on the atmosphere)
 - The 2005 “pilot project” use of biodiesel B20 blend for VTrans Central Garage fleet fuel has evolved into the use of a B5 blend at the Central Garage as well as at the Bennington, Dummerston, St. Johnsbury, St. Albans, and Chimney Corners District garages. [Note: Blends having a biodiesel component less than or equal to B20 limit undesirable increases in air emissions of Nitrogen Oxides (NO_x)]⁶.
 - As much as 15% - 20% of the VTrans’ fuel use will have a biodiesel component over the next year. VTrans recent biodiesel purchases for fleet use are as follows:⁷
 - 15,000+/- gallons of B20 in fiscal year (FY)05
 - 26,877 gallons of B20 purchased in FY06
 - 5,502 gallons of B20 purchased in FY07
 - 103,500 gallons of B5 purchased in FY07 through 3/9/07
 - All petroleum diesel used by VTrans since October 2006 is ultra-low-sulfur diesel. Ultra Low sulfur diesel (ULSD), in combination with appropriate catalytic / particle trap emissions reduction technology will result in further reductions in diesel particulate emissions. As previously stated, diesel exhaust particles, while not a greenhouse gas, have a positive climate forcing effect which contributes to global warming
 - Discussion on potential future strategies included:
 - When replacing non-passenger fleet vehicles, compare & evaluate various vehicle specifications that may provide opportunities to increase fuel efficiency and thus reduce GHG emissions. Purchase vehicles having these “GHG-reduction” options while still meeting functional needs.
 - Begin tracking non-passenger vehicle fleet operating costs by district when practicable. Tracking fuel use/cost (and other parameters) by district would allow VTrans to identify efficiency differences among districts.

⁶ Note: See inset box on page 9 for discussion of biodiesel.

⁷ Data courtesy of the Vermont Agency of Transportation (VTrans)

Specific “best operational practices” could then be identified at “efficient districts” and promoted within those districts having lower efficiencies.

- Gain a better understanding of the extent and emissions impact of unnecessary vehicle engine idling. One way to do this might be to survey operators / district managers. Another more accurate way might be to initiate a data collection pilot project on 1 or 2 vehicles at VTrans. A simple data logger could be placed on board a vehicle to allow us to determine amount of time a vehicle is operated at idle (nonzero rpm / vehicle speed = zero) vs. regular operation (nonzero rpm / nonzero vehicle speed).
- If idling is found to be a substantial component of vehicle operation, then actively pursue ways to reduce / eliminate idling, including:
 - Initiate an educational program for operators outlining emissions and cost drawbacks attributable to unnecessary engine idling.
 - Put up anti-idling signage, vehicle stickers, etc. as a reminder to operators.
 - Possible pilot project using an onboard auxiliary heater as in Warren school bus pilot-project.
 - Investigate feasibility of automatic electro-mechanical anti-idling devices.

Transportation: Employee Commuting

There is likely to be little change in total annual GHG emissions from this sector, since no substantial new programs / incentives have been put in place. However it is the intent of Chapter IV to outline program recommendations that will reduce emissions from this sector.

Other Initiatives:

- ④ Biodiesel: Kubota lawn tractors on statehouse lawn
- ④ Partnered with Vermont Sustainable Jobs Fund on biodiesel grant. VSJF received \$75,000 to create a Vermont biodiesel infrastructure.
- ④ Utilization of "Living Machine" technology for advanced wastewater treatment at some locations.

BIODIESEL FACTS

Biodiesel has both positive and negative characteristics. Among its attributes, biodiesel is a renewable energy resource that can be produced locally; and it utilizes carbon that is currently cycling between the atmosphere and biological processes, rather than carbon taken out of the atmosphere millions of years ago and stored as fossil fuels. Further it can reduce some exhaust emissions of Carbon Monoxide, Sulfur Oxides, Hydrocarbons, and Particulate Matter.

Negative features include the potential increase in Nitrogen Oxides (NO_x) emissions when Biodiesel is used in diesel engines. Emissions of NO_x are problematic as they go on to form Nitrogen Dioxide (NO₂), a respiratory irritant and a critical component to the formation of photochemical smog (a.k.a Ozone), a contaminant that can threaten human health and contribute to global warming. NO_x can also chemically convert in the atmosphere to form fine particulate matter (“nitrates”), that can lodge deep in the human lung, combine with other contaminants in the atmosphere and form toxic “nitro amines”, acidify rainwater, and deposit to lakes and ponds where the Nitrogen can contribute to eutrophication.

If Biodiesel were to encourage greater use of diesel engines over better controlled, cleaner gasoline engines this would result in the release of greater health-threatening air emissions overall. In addition there is an outstanding issue as to whether the use of Biodiesel voids engine manufacturer’s warranties.

Biodiesel combusted in boilers and furnaces does not exhibit the negative attributes identified above and does not conflict with manufacturer warranties.

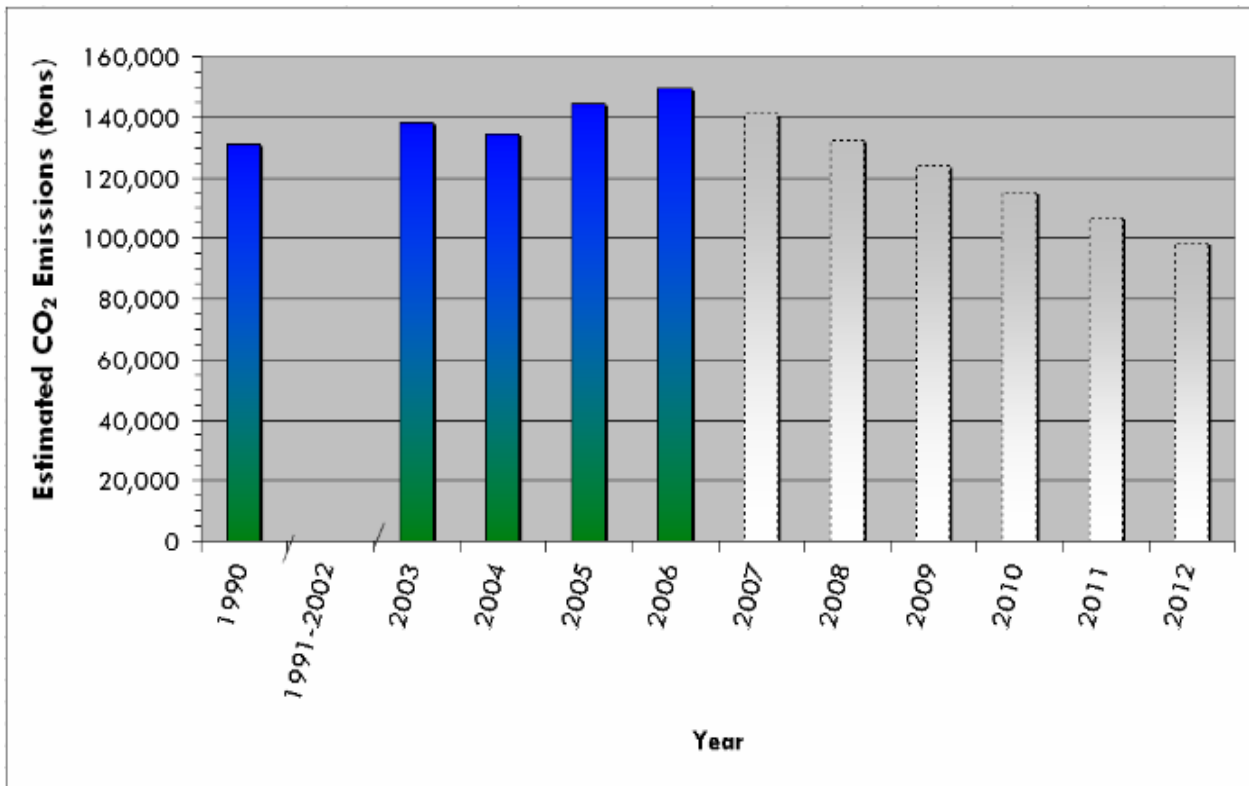
Therefore the most appropriate use of Biodiesel is to displace petroleum fuel used in boilers and furnaces. If Biodiesel is used as an engine fuel, using it blended with diesel to a 20% content (B20) will minimize the increase in NO_x.

CO₂ Emissions Summary:

According to preliminary estimates provided by the Department of Buildings and General Services (BGS), energy consumption and greenhouse gas (GHG) emissions related to building space heating and building electricity consumption still exhibit a slight increase each year. State vehicle fleet GHG emissions decreased slightly from 2005 to 2006. As projects and initiatives implemented since the First Biennial Report become more firmly established and their benefits fully realized, GHG emissions from space heating and electricity consumption should begin to decrease as well.

For Vermont State Government to meet its short term goal of reducing GHG emissions 25% below 1990 levels by 2012, it must begin to reduce total CO₂ emissions by approximately 8,600 tons per year beginning in 2007. This will require roughly one and one half to twice the annual CO₂ emissions reductions indicated in the FBR. It is apparent that Vermont State Government is faced with a substantial challenge to reduce energy consumption and CO₂ emissions consistent with the goals of Executive Order #14-03. However, initiatives already underway reinforce the commitment and ability of Vermont State Government to meet this challenge. Figure 1 shows estimated historical GHG emissions (colored bars) and identifies the future annual emissions reductions necessary to achieve the short-term provisions of Executive Order #14-03 (gray bars). These emission reductions will come about as Vermont State Government buildings, operations, and transportation becoming increasingly energy efficient.

Figure 1. Summary of Vermont State Government CO₂ Emissions



Chapter III: Update on Related GHG Emission Reduction Efforts

Section III-a: Regional Greenhouse Gas Initiative (RGGI)



Since the release of the First Biennial Report in April 2005, Vermont has reinforced its intent to participate in

the carbon cap and trade program known as the Regional Greenhouse Gas Initiative (RGGI). In December 2005, Governor Douglas and governors of six other Northeast states signed a memorandum of understanding, agreeing to create a regional cap-and-trade system that utilizes emissions credits or allowances to limit the total amount of emissions. Beginning in 2009, emissions of CO₂ from power plants in the region would be capped at current levels – approximately 121 million tons annually – with this cap remaining in place until 2015. The states would then begin reducing emissions incrementally over a four-year period to achieve a 10 percent reduction by 2019.

In May 2006, Governor Douglas signed into law a bill (Act No. 123)⁸ codifying the state's participation in the RGGI, and making Vermont the first state to enact the RGGI initiative into law. The bill commits Vermont to enacting rules to implement the RGGI program; establishes a clear and thoughtful system of allocating the use of emissions credits, or 'allowances', that Vermont is due to receive; dedicates 100 percent of these allowances to consumer benefit purposes, and establishes a broad range of public benefit investments that the Public Service Board may consider as it decides these matters under the bill's framework. Learn more about RGGI by visiting www.rggi.org.

Section III-b: Eastern Climate Registry (ECR)



Eastern Climate Registry
Supporting Regional Climate Action

The Eastern Climate Registry (formerly referred to as the Regional Greenhouse Gas Registry or "RGGR") will provide a consistent GHG emissions platform supporting state voluntary and mandatory GHG reporting programs. The ECR will ensure that consistent data reporting and accounting methodologies are used regardless of any differences in greenhouse gas policies and programs. It is critical that common GHG accounting standards be used throughout the region to ensure that emissions, baselines, and reductions are measured consistently as a common currency. For purposes of trading or any other climate change strategy, a "ton is a ton" reduction of GHG emissions, regardless of the location. This is true for greenhouse gases in particular because of the uniform nature of the pollutants, the global scope of climate change, and the emergence of carbon markets that will require rigorous and consistent measures.

By early 2007, companies will be encouraged to voluntarily report their national GHG emissions data into the ECR system to demonstrate their environmental leadership, manage carbon-related risks, increase operational efficiency, and document early action. For additional information see www.easternclimateregistry.org.

⁸ ACT NO. 123. AN ACT RELATING TO VERMONT'S PARTICIPATION IN THE REGIONAL GREENHOUSE GAS INITIATIVE <http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2006/acts/ACT123.HTM>

Section III-c: The Governor's Commission on Climate Change (GCCC)



There is a growing scientific consensus that increasing emissions of greenhouse gases to the atmosphere are affecting the temperature and variability of the Earth's climate. Recognizing the

profound implications that global warming and climate variation could have on the economy, environment and quality of life in Vermont, Governor Jim Douglas issued Executive Order 07-05 establishing the Governor's Commission on Climate Change (GCCC) and asked it to:

- ④ Examine the real and potential effects of climate change on Vermont, including, but not limited to the impact of climate change on public health, natural resources and the economy;
- ④ Produce an inventory of existing and planned actions that contribute to greenhouse gas emissions in Vermont;
- ④ Educate the public about climate change and develop educational tools that will help Vermonters understand how they, as individuals, can play a role in reducing greenhouse gas emissions;
- ④ Request input from representatives of the business, environmental, forestry, transportation, non-profit, higher education, municipal and other sectors regarding opportunities to reduce emissions and conserve energy; and
- ④ Develop recommendations to the Governor to reduce greenhouse gas emissions in Vermont, consistent with Vermont's need for continued economic growth and energy security.

The Governor further asked that these recommendations, and all other pertinent information, be included in a Climate Change Action Plan to be submitted to him no later than September 1, 2007.

In order to gain input and assistance from a broad cross-section of Vermont life and the state's economy in fulfilling this task, the GCCC and the Vermont Department of Environmental Conservation convened a large Plenary Group and retained the Center for Climate Strategies (CCS) to provide evaluative facilitation. The Plenary Group will consider, evaluate, quantify, and compile a full, multi-sector set of recommended policy options for the GCCC's consideration and approval in making its final recommendations to the Governor. The aim of this carefully structured, comprehensive process is to focus the expertise and diverse perspectives of the members of the Plenary Group on finding meaningful solutions that fit Vermont's unique needs and circumstances. This initiative enables Vermont State Government to move beyond the internal "lead by example" process of the CNWG to a comprehensive, multi-sector, statewide climate change action planning process. To examine this initiative in greater detail, visit www.vtclimatechange.us.

In May 2006, the Vermont General Assembly enacted Act 168 providing a legislative mandate for this statewide climate mitigation / planning process⁹.

⁹ ACT NO. 168. AN ACT RELATING TO ESTABLISHING GREENHOUSE GAS REDUCTION GOALS AND A PLAN FOR MEETING THOSE GOALS <http://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2006/acts/ACT168.HTM>

Section III-d: New England Governors/Eastern Canadian Premiers (NEG/ECP) Climate Change Action Plan 2001



In August 2001, the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted the first and only regional action plan in North America for addressing climate change¹⁰. Vermont has been an active participant since its inception, and has steadily worked to implement as many of the Action Items outlined in the NEG/ECP plan. Below is a brief summary of the NEG/ECP Action Items that Vermont has addressed, and/or is actively pursuing:

Action Item 1: The Establishment of a Regional Standardized GHG Emissions Inventory

This task is currently being undertaken as part of the GCCC process described above in Section III-c. It will utilize standardized methodologies and state-specific data wherever feasible. The comprehensive inventory produced by this publicly-transparent, consensus-based effort will accurately represent Vermont's historic and current GHG emissions. In addition, it will provide a forecast of future emissions and analysis of potential reductions from a wide array of policy options.

Action Item 2: The Establishment of a Plan for Reducing GHG Emissions and Conserving Energy

This is the main goal of the of the GCCC process described above in Section III-c.

Action Item 3: The Promotion of Public Awareness

Given that the GCCC process is comprised of representatives from the business, environmental, forestry, transportation, non-profit, higher education, government, and other sectors, it will inherently begin to raise public awareness regarding the various facets of climate change. More specifically, the process utilizes several Technical Working Groups (TWGs) to examine the most important of these facets in more detail. One of these TWGs will be examining cross cutting issues including public outreach and education.

Action Item 4: State and Provincial Governments to Lead by Example

This item is being addressed through the ongoing efforts of the CNWG and the SAEP.

Action Item 5: The Reduction of Greenhouse Gases from the Electricity Sector

This item is the focus of RGGI described in Section III-a above.

Action Item 6: The Reduction of the Total Energy Demand through Conservation

Energy (both electrical and fuel-based) supply and demand issues will be examined by the Energy Supply and Use Technical Working Group (TWG) of the GCCC process. This TWG will develop policy recommendations to the Governor designed to reduce energy demand and the associated GHG emissions.

Action Item 7: The Reduction and/or Adaptation of Negative Social, Economic and Environmental Impacts of Climate Change

This is an extremely important issue that has not yet been adequately addressed. It is likely a topic that should be examined more thoroughly as part of GCCC process.

¹⁰ See [http://www.neg-ecp-environment.org/newsletters/News_NEG-ECP_Climate_Change_Action_Plan_\(July_2001\).pdf](http://www.neg-ecp-environment.org/newsletters/News_NEG-ECP_Climate_Change_Action_Plan_(July_2001).pdf)

Action Item 8: A Decrease in the Transportation Sector's Growth in GHG Emissions

Vermont has taken a big step in reducing future GHG emissions from the transportation sector by adopting the California's greenhouse gas (GHG) emission standards for new motor vehicles for inclusion in Vermont's Low Emission Vehicle (LEV) Program. (For more information visit <http://www.anr.state.vt.us/air/htm/ProposedAmendments.htm>).

In addition, the GCCC process is charged with developing a set of policy recommendations to further reduce GHG emissions from the transportation sector. These recommendations will be delivered to the Governor by September 2007.

Action Item 9: The Creation of a Regional Emissions Registry and the Exploration of a Trading Mechanism

This item is the focus of the Eastern Climate Registry described in Section III-b above.

Section III-e: Vermont State Agency Energy Plan for State Government (SAEP)



In July 2005, BGS released this plan to fulfill a legislative mandate. It is the first re-issuance of the SAEP as required by T3§2291 since May 1993. Significant and substantial work has been done since that time in the areas of infrastructure development, purchasing policies, procedures and practices, and transportation. Yet significant and challenging work lies ahead.

It is the intention of this plan to be coordinated with the work associated with the Climate Neutral Working Group and takes advantage of many of the recommendations contained in the 1st Biennial Report of the CNWG. CNWG members may also serve as State Agency Energy Plan representatives.

The plan:

- Defines the State's policy and objectives regarding energy consumption in State Government.
- Outlines strategies to meet the objectives in three main areas including building infrastructure, purchasing and transportation.
- Specifies the development of Agency Implementation Plans (AIPs).
- Discusses educational, promotional and communication opportunities.
- Details reporting, evaluation and monitoring requirements.
- Outlines plan revision and readoption processes.

The SAEP should be considered a "living document" that can be changed or adjusted according to the ever-changing building conditions, occupant usage patterns, fuel situations and available technologies. Similarly, each State Agency is required to prepare an AIP that is specifically tailored to its unique strengths and challenges. Below are a few example activities excerpted from individual AIPs.

- VTrans is upgrading all their garages with more efficient lighting using the State Resource Management Revolving Fund. This will save the state about 110,000 kWh and an associated 55 tons CO₂ emissions per year.

- ④ VTrans, Department of Public Safety and Department of Corrections are researching ways to prevent unnecessary idling in their vehicles.
- ④ VTrans and BGS are installing meters to improve tracking of energy use. VTrans is looking at fuel use, BGS has installed electrical and condensate sub-meters.
- ④ BGS has completed one conservation contract and has entered into three performance contracts. One contract involves Department of Corrections and Judiciary.
- ④ VTrans is working on occupant behavior with their building owner.
- ④ BGS is making envelope and equipment improvements.

For more information please visit: <http://www.bgs.state.vt.us/pdf/VTStateEnergyPlan.pdf>

Chapter IV: Recommendations and Next Steps

Chapter II demonstrates that Vermont State Government is implementing various innovations related to building space heating, electricity consumption, and the state vehicle fleet. In order to begin making annual GHG emissions reductions of the magnitude required to attain the goals, it is vital that BGS and other state agencies continue to implement existing efforts as well as develop new innovations in these sectors. This is likely to occur given the stewardship exhibited to date, as well as the impending Agency Implementation Plans required by the legislative mandate of the State Agency Energy Plan (SAEP). Vermont State Government should undertake additional efforts to support the SAEP to ensure that individual Agency Implementation Plans (AIPs) will be effective and implemented appropriately.

In addition, there are still substantial, untapped GHG emissions reductions to be realized in the employee commuting sector. The 2 primary ways to achieve GHG reductions in this sector are:

- ④ Encourage employees to drive efficient vehicles having reduced GHG emissions.
- ④ Encourage employees to drive less their personal vehicles less and instead utilize organized carpooling, enhanced public transit, etc.

Recently the Vermont Agency of Transportation (VTrans) initiated a public opinion survey regarding a wide array of transportation issues¹¹. Summary results of responses from more than 1200 Vermonters revealed the following important facts:

- More than one in three Vermont residents (37%) would not take any actions to drive their passenger vehicles any less than they do currently. In June 2000, almost two out of three responded that they would not take any action. *(In other words- in the year 2000, Vermonters were twice as resistant as they are now to driving their passenger vehicles less.)*
- The options that would be most likely to cause some residents to consider driving less were better public transit (22%) and higher gasoline prices (17%). An additional 7 percent specifically mentioned commuter trains. If the number of respondents who specified commuter trains or public transit are combined into one category, 29 percent of Vermonters who currently travel by car might drive less if there were more public transportation options.
- The average estimated number of miles traveled by the Vermont residents surveyed was 52.5 miles per day. The estimated distance traveled on an average day has increased significantly from the 36 miles reported in June 2000 – 46 percent increase in five years. No comparison was available from the 1995 survey.
- Compared to June 2000, ... The number of residents would like to see a greater share of funding spent on public transportation increased by ten percentage points to 41 percent.

Collectively these statements suggest that efforts to enhance the coverage of, and increase the use of public transit are more likely to succeed now than in the recent past.

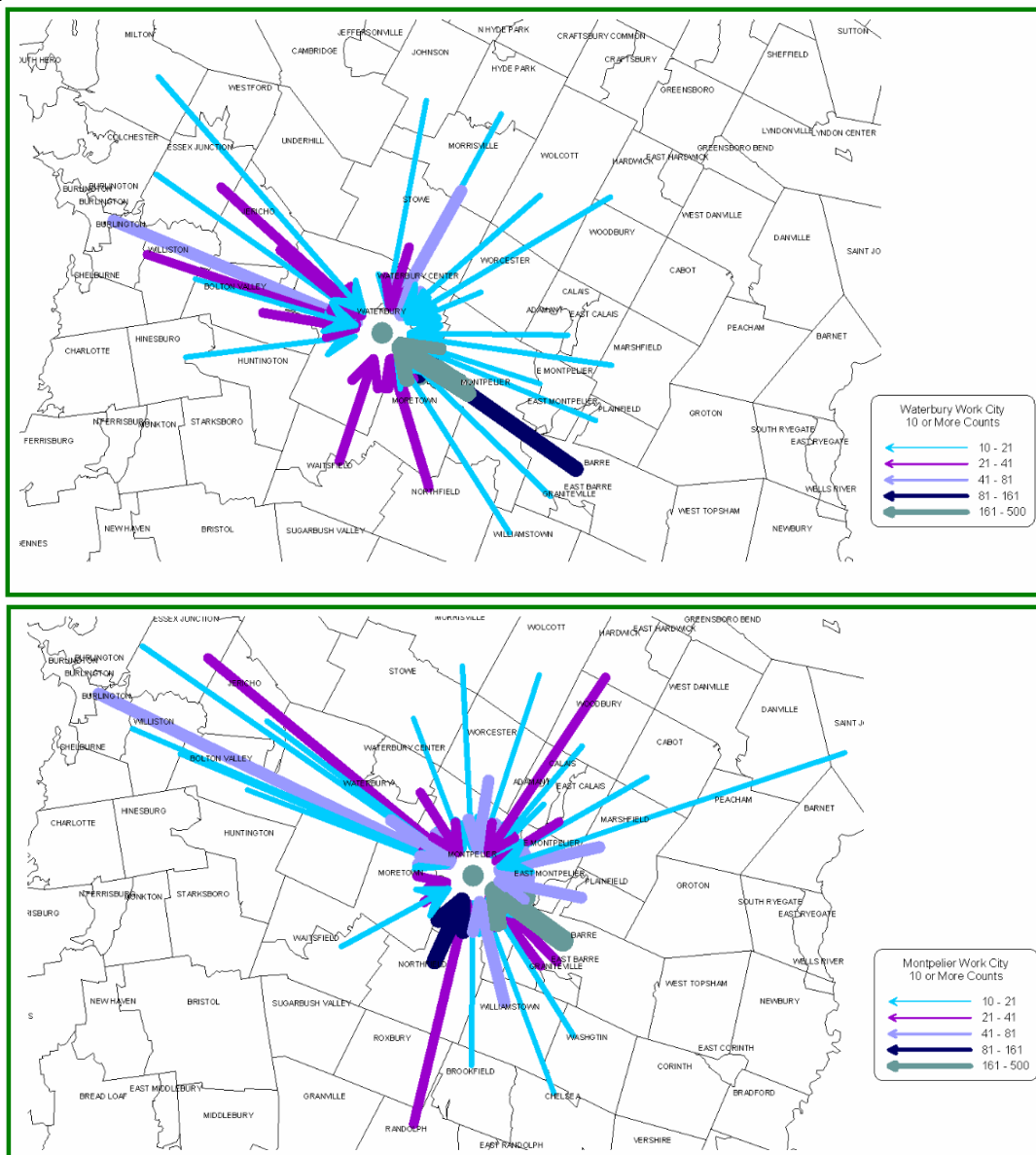
¹¹ <http://www.aot.state.vt.us/Documents/VLRTPReport.pdf>

Vermont Long Range Transportation Plan Survey Summary Report 2006 - Prepared for The Vermont Agency of Transportation by Wilbur Smith Associates.

To better understand the details of promoting public transit as a commuting option for Vermont state employees, the CNWG performed an updated analysis of home to work commuting distances for all Vermont state employees. The analysis utilizes the linear distance between employees' home zip codes and work station zip codes. As indicated by the FBR, the average round trip commute is approximately 33 miles. This distance is only approximate, as specific employee addresses and travel routes were not examined. However, this distance is not inconsistent with the results of the VTrans survey.

The analyses looked at total daily trips to each Vermont State Office worksite including: Barre, Bennington, Berlin, Brattleboro, Burlington, Montpelier, Morrisville, Newport, Rutland, Saint Albans, Saint Johnsbury, South Burlington, Springfield, Waterbury, and White River Junction. As expected, the majority of state employee commuting vehicle miles traveled (VMT) are to and from the Waterbury and Montpelier state offices (see Figure 2).

Figure 2. Vermont State Government Employee Commuting Patterns to Waterbury and Montpelier State Offices.



The overwhelming majority of vehicle miles traveled to these 2 busy office sites, combined with an overlap with existing (though limited) public transit provides a unique opportunity. The Green Mountain Transit Agency (GMTA)¹² operates bus routes in Washington county (and neighboring locations) that could effectively reduce state employee work / home VMT if properly coordinated.

According to the Victoria Transport Policy Institute (VTPI): “Major barriers to improved public transit service include limited funds, automobile oriented land use, policies that underprice automobile travel (which makes transit relatively less competitive), and stigma that is sometimes associated with transit use.”¹³ In order to remove some of these barriers and improve Vermont State Employee transit ridership, the CNWG recommends that Vermont State Government consider the following:

- ④ Work with GMTA and the Chittenden County Transportation Authority (CCTA)¹⁴ to conduct a pilot project to improve access and use of transit to make the work-home journey of state employees more efficient and less polluting.
- ④ Explore the possibility of initiating an Unlimited Access (UA) program with GMTA for state employees as a means of having transit provide a greater portion of the work-home journey.

In a typical UA program, a local public transit agency provides transit service for students of a local college / university in exchange for payment from the college / university of an annual lump sum based on expected student ridership. To utilize the UA program, students simply display their university identification when boarding the bus, rather than paying for transit passes out of their own pockets.

The University of Vermont (UVM) and CCTA have engaged in a UA program which benefits both students and faculty. Students and faculty swipe their ID cards at the fare box, custom software recognizes them, and UVM receives a monthly bill. According to CCTA, 2004 ridership at UVM was approximately 104,000 one-way trips, with 2005 ridership up 39% from 2004, and 2006 ridership up 35% from 2005. Of those UVM students, faculty, and staff eligible for the Unlimited Access program in FY06, approximately 25% used the program.

As an example, Initiating such a program at the Waterbury and Montpelier office complexes for employees able to utilize the GMTA “Waterbury Commuter” route, could reduce VMT by approximately 430,000 miles annually (assuming 25% participation as for UVM). This would result in a corresponding CO₂ emissions reduction from the employee commuting sector of approximately 230 tons from utilizing that *one bus route alone*.

It is crucial that recommendations, from this report as well as the First Biennial Report, aimed at reducing GHG emissions from the employee commuting sector are evaluated and implemented. These new measures combined with the ongoing efforts to reduce GHG emissions from the state

¹² <http://www.gmtaride.org/main.php>

¹³ <http://www.vtppi.org/tdm/tdm47.htm>

¹⁴ GMTA is managed by the Chittenden County Transportation Authority (CCTA), Vermont’s largest and only public transportation authority. (see <http://www.cctaride.org/main.php>)

fleet, building electricity use, and space heating will enhance Vermont State Government's ability to meet its GHG emission reduction goals

Although not specific to GHG emission reductions from state government operations, there are also several recommendations presented below that will encourage consistent, broader-scale actions that state government has under its purview.

- ④ The Agency of Natural Resources (ANR) should endeavor to complete the rule-making process formalizing implementation of the Regional Greenhouse Gas Initiative (RGGI) in Vermont. ANR has been seeking public and stakeholder comments on a pre-proposal draft rule since January 2007, with written comments requested on or before April 16, 2007. Vermont's pre-proposal draft rule reflects the provisions of the RGGI model rule and includes some Vermont specific provisions.¹⁵
- ④ ANR should continue its support for the multi-state Eastern Climate Registry (ECR), and work to encourage companies to report their national GHG emissions data into the system to demonstrate environmental leadership, manage carbon-related risks, increase operational efficiency, and document early action.

¹⁵ For additional information, visit <http://www.anr.state.vt.us/air/hm/RGGI.htm>



Appendix A - Complete Text of Vermont Executive Order # 14-03

STATE OF VERMONT

Executive Department

EXECUTIVE ORDER

[Climate Change Action Plan for State Government Buildings and Operations]

WHEREAS, the scientific evidence, reviewed by the U.S. National Academy of Sciences, the Intergovernmental Panel on Climate Change, and an overwhelming majority of the world's climate scientists, indicates greenhouse gases are accumulating in the Earth's atmosphere as a result of human activities; and

WHEREAS, these scientists also contend that the increases in greenhouse gases are causing the global climate to change at a greater rate and magnitude than would otherwise be expected, projecting an increase in globally-averaged surface temperatures of 2.5 to 10.4 degrees Fahrenheit by the end of the century; and

WHEREAS, even small changes in surface temperatures are projected to cause significant changes in our regional climate and Vermont's environment; and

WHEREAS, the United States, with only 5 percent of the world's population produces 20 to 25 percent of all greenhouse gas emissions from human activities and is, therefore, a significant factor affecting the global climate; and

WHEREAS, Vermont, although it plays a small role, contributes to greenhouse gas emissions via car and truck traffic, with Vermonters driving more miles per person than the national average, and the burning of fossil fuels for home heating and power generation; and

WHEREAS, the federal government and numerous private sector businesses in the United States and abroad are discovering that it is a sound business decision, both financially and environmentally, to decrease their greenhouse gas emissions - simultaneously increasing productivity and employment; and

WHEREAS, ambitious energy efficiency and conservation efforts will not only reduce greenhouse gas emissions, but will also reduce a host of other pollutant emissions (including toxic chemicals) associated with fossil fuel combustion for electricity generation and transportation.

NOW, THEREFORE, BE IT RESOLVED THAT I, James H. Douglas, by virtue of the power vested in me as Governor of the State of Vermont, do hereby direct state government agencies and departments to reduce greenhouse gas emissions from state government buildings and operations. Vermont's goal is to reduce emissions by an amount consistent with the recommendations of The Conference of the New England Governors and Eastern Canadian Premiers Climate Change Action Plan. The goals established by the Conference are to reduce region-wide greenhouse gas emissions from the 1990 baseline by: twenty-five percent by 2012; fifty percent by 2028; and, if practicable using reasonable efforts, seventy-five percent by 2050.

To promote these goals I hereby order as follows:

(1) A Climate Neutral Working Group is established to be jointly chaired by the Commissioners of the Department of Environmental Conservation, the Department of Buildings and General Services, and the Department of Public Service, and to include Secretaries, Commissioners, and technical representatives from the Agency of Natural Resources, Department of Public Service, Agency of Administration, Agency of Commerce and Community Development, Agency of Transportation, Department of Buildings and General Services, Vermont Energy Investment Corporation, and other agencies as interested. The working group is tasked with coordinating, documenting, and encouraging efforts to meet Vermont's greenhouse gas emission reduction goals. It will prepare a biennial report documenting efforts to meet the goals, identifying future planned steps and their anticipated impacts, and highlighting any challenges for meeting those goals, as well as opportunities for expediting greenhouse gas emission reductions.

(2) The report shall include the state of the science for responding to climate change, including the status of methods and measures available to meet the goals. In addition, the working group will identify opportunities to share lessons learned with Vermont businesses, other state and provincial governments, and the federal government.

(3) All state government agencies, offices, and departments are hereby directed to:

(i) Purchase only energy-consuming devices that meet or exceed the Energy Star® or comparable standards established by the U.S. federal government, and to operate these devices in a manner that maximizes their energy efficiency features.

(ii) Purchase vehicles that have the highest available fuel efficiency in each respective vehicle class (e.g., passenger cars, light duty trucks, etc.), pursuant to performance specifications approved by the Climate Neutral Working Group. In setting these performance specifications, the Working Group shall consider vehicles that not only meet high fuel economy standards but that also provide lower total overall emissions of greenhouse gases, criteria pollutants, and hazardous air contaminants.

(iii) Develop programs to encourage state employees, through the use of incentives, to use transportation alternatives to a single person in a single motor vehicle for commuting and business travel, including incentives as may be bargained with the collective bargaining units.

(4) The Department of Buildings and General Services shall work with the Climate Neutral Working Group and all state facilities to ensure that every state building reduces its energy consumption to meet the outlined greenhouse gas reductions.

(5) The Department of Buildings and General Services shall investigate cost-effective opportunities to purchase renewable energy to reduce the State of Vermont's reliance on fossil fuels. Renewable energy includes electricity derived from sources such as solar, wind, geothermal, landfill methane gas, or small scale (less than 30 megawatts) hydroelectric projects.

(6) The Climate Neutral Working Group shall prepare a report to the Governor and the General Assembly describing opportunities to initiate a statewide voluntary greenhouse gas emissions registry, and investigate the feasibility of a carbon emissions cap and trading program for the state as a strategy for further reducing region-wide greenhouse gas emissions. The Agency shall identify the effort required to establish sector-specific baselines, develop an emissions tracking protocol, and institute an emissions trading mechanism. It should also recommend greenhouse gas reduction targets and identify activities to help meet those targets.

(7) The Climate Neutral Working Group shall request input from representatives of the business, environmental, forestry and transportation sectors regarding opportunities for the private sector to reduce emissions and conserve energy.

(8) The chairs of the Climate Neutral Working Group shall consult with representatives from the other New England states to establish a broad-based approach to these environmental issues.

Administrative support shall be provided by the Agency of Natural Resources.

This Executive Order shall take effect upon signing and supersedes and replaces Executive Order #11-02 (renumbered Executive Order #10-28) dated August 22, 2002.

This Executive Order shall sunset on July 1, 2020.

Witness my name hereunto subscribed and the Great Seal of the State of Vermont hereunto affixed at Montpelier this 16th day of September, 2003.

James H. Douglas

Governor

By the Governor:

Neale F. Lunderville

Secretary of Civil and Military Affairs Executive Order No. 14-03

14-03

Appendix B – Complete Text of Vermont Executive Order # 07-05

STATE OF VERMONT

Executive Department

EXECUTIVE ORDER

[Governor’s Commission on Climate Change]

WHEREAS, the Conference of the New England Governors and Eastern Canadian Premiers recognizes that “scientific evidence of the destabilizing human influence on global climatic systems is continuing to build, creating a growing momentum for a response;” and

WHEREAS, it is imperative that governments work individually and collectively to address the economic, environmental and societal consequences of climate change; and

WHEREAS, Vermont’s goal is to reduce emissions by an amount consistent with the recommendations of the Conference of the New England Governors and Eastern Canadian Premiers Climate Change Action Plan; and

WHEREAS, the goals established by the Conference are to reduce region-wide greenhouse gas emissions from the 1990 baseline by twenty-five percent by 2012, fifty percent by 2028 and, if practicable using reasonable efforts, seventy-five percent by 2050; and

WHEREAS, the State of Vermont, recognizing that state government activities contribute to climate change, has been proactive in developing ways in which state government can reduce greenhouse gas emissions; and

WHEREAS, in 2003 a Climate Neutral Working Group was established by Executive Order to recommend ways by which state government agencies and departments could reduce greenhouse gas emissions from state government buildings and operations; and

WHEREAS, the State of Vermont has implemented many of the recommendations of the Climate Neutral Working Group, including replacing older state-owned automobiles with more fuel-efficient vehicles, including hybrid vehicles, encouraging state employees to use these fuel-efficient vehicles rather than their own vehicles, building more efficient state facilities, purchasing only energy-efficient devices and developing a State Agency Energy Plan to reduce state government’s energy use; and

WHEREAS, recognizing that emissions from cars and other vehicles are the largest source of greenhouse gas emissions in Vermont, the Agency of Natural Resources is implementing new emissions standards that will reduce Vermont’s greenhouse gas emissions; and

WHEREAS, several entities within state government, including the Department of Environmental Conservation, the Department of Public Service, and the Public Service Board are participating in developing the Regional Greenhouse Gas Initiative (RGGI), under which signatory states would act together to control emissions of carbon dioxide from electricity-generating power plants within those states; and

WHEREAS, it is important that the State of Vermont take the lessons learned from these efforts and develop and implement an effective statewide greenhouse gas emissions reduction program; and

WHEREAS, it is important for Vermonters to understand climate change and its economic, environmental and societal consequences, and be provided strategies to take personal responsibility for addressing the problem.

NOW THEREFORE, pursuant to the authority vested in me as Governor of the State of Vermont, I, James H. Douglas, do hereby create the Governor's Commission on Climate Change. The Commission shall consist of no more than six members appointed by the Governor. The Governor shall appoint a Chair. The Vermont Department of Environmental Conservation shall provide administrative and technical support to the Commission, and the Commission may call upon other state agencies or departments to assist as appropriate in implementing this Order and achieving its purposes.

The Commission shall be advisory to the Governor and shall have the following functions and duties:

1. To examine the real and potential effects of climate change on Vermont, including, but not limited to the impact of climate change on public health, natural resources and the economy; and
2. To produce an inventory of existing and planned actions that contribute to greenhouse gas emissions in Vermont; and
3. To educate the public about climate change and develop educational tools that will help Vermonters understand how they, as individuals, can play a role in reducing greenhouse gas emissions; and
4. To request input from representatives of the business, environmental, forestry, transportation, non-profit, higher education, municipal and other sectors regarding opportunities to reduce emissions and conserve energy; and
5. To develop recommendations to the Governor to reduce greenhouse gas emissions in Vermont, consistent with Vermont's need for continued economic growth and energy security. These recommendations, and all other pertinent information, shall be included in a Climate Change Action Plan that shall be submitted to the Governor no later than September 1, 2007. The Commission may also, as it sees fit, make interim recommendations to the Governor prior to issuing a final report.

This Executive Order shall take effect upon signing and shall expire upon the issuance of a final Climate Change Action Plan by the Commission.

Witness my name hereunto subscribed and the Great Seal of the State of Vermont hereunto affixed at Montpelier this 5th day of December, 2005.

James H. Douglas, Governor

By the Governor:

Neale F. Lunderville, Secretary of Civil and Military Affairs

Executive Order No. 07-05

Appendix C - Complete Text of RGGI Bill (Act No. 123)

ACT OF THE GENERAL ASSEMBLY 2005-2006

NO. 123. AN ACT RELATING TO VERMONT'S PARTICIPATION IN THE REGIONAL GREENHOUSE GAS INITIATIVE.

(H.860)

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. 30 V.S.A. § 254 is added to read:

§ 254. REGIONAL COORDINATION TO REDUCE GREENHOUSE GASES

(a) Legislative findings. The general assembly finds:

(1) There is a growing scientific consensus that the increased anthropogenic emissions of greenhouse gases are enhancing the natural greenhouse effect, resulting in changes in the earth's climate.

(2) Climate change poses serious potential risks to human health and terrestrial and aquatic ecosystems globally, regionally, and in Vermont.

(3) A carbon constraint on fossil fuel-fired electricity generation and the development of a CO2 allowance trading mechanism will create a strong incentive for the creation and deployment of more efficient fuel-burning technologies, renewable resources, and end-use efficiency resources and will lead to lower dependence on imported fossil fuels.

(4) Absent federal action, a number of states are taking actions to work regionally to reduce power sector carbon emissions.

(5) Vermont has joined with at least six other states to design the Regional Greenhouse Gas Initiative (RGGI), and, in 2005, Vermont's governor signed a memorandum of understanding (MOU) signaling Vermont's intention to develop rules and programs to participate in RGGI.

(6) It is crucial to manage Vermont's implementation of RGGI so as to maximize the state's contribution to lowering carbon emissions while minimizing impacts on electric system reliability and unnecessary costs to Vermont power consumers.

(7) The accelerated deployment of low-cost energy efficiency and the strategic use of low- and zero-carbon generation are the best means to achieve these goals.

(8) It is crucial that funds made available from operation of a regional carbon credits cap and trade system be devoted to the benefit of Vermont power consumers through investments in a strategic portfolio of energy efficiency and low-carbon generation resources.

(b) Cap and trade program creation.

(1) The agency of natural resources and the public service board shall, through appropriate rules and orders, establish a carbon cap and trade program that will limit and then reduce the total carbon emissions released by major electric generating stations that provide electric power to Vermont utilities and end-use customers.

(2) Vermont rules and orders establishing a carbon cap and trade program shall be designed so as to permit the holders of carbon credits to trade them in a regional market proposed to be established through the RGGI.

(c) Allocation of tradable carbon credits.

(1) The secretary of natural resources, by rule, shall establish a set of annual carbon budgets for emissions associated with the electric power sector in Vermont consistent with the 2005 RGGI MOU, including any amendments to that MOU, and on a reciprocal basis with the other states participating in the RGGI process.

(2) In order to provide the maximum long-term benefit to Vermont electric consumers, particularly benefits that will result from accelerated and sustained investments in energy efficiency and other low-cost, low-carbon power system investments, the public service board, by rule or order, shall establish a process to allocate 100 percent of the Vermont statewide budget of tradable power sector carbon credits and the proceeds from the sale of those credits through allocation to one or more trustees acting on behalf of consumers in accordance with the following principles. To the extent feasible, the allocation plan shall accomplish the following goals:

(A) minimize windfall financial gains to power generators as a result of the operation of the cap and trade program, considering both the costs that generators may incur to participate in the program and any power revenue increases they are likely to receive as a result of changes in regional power markets;

(B) employ an administrative structure that will enable program managers to perform any combination of holding, banking, and selling carbon credits in regional, national, and international carbon credit markets in a financially responsible and market-sensitive fashion, and provide funds to defray the reasonable costs of the program trustee or trustees and Vermont's pro-rata share of the costs of the RGGI regional organization;

(C) optimize the revenues received from the management and sale of carbon credits for the benefit of Vermont electric customers and the Vermont economy;

(D) minimize any incentives from operation of the cap and trade program for Vermont utilities to increase the overall carbon emissions associated with serving their customers;

(E) build upon existing regulatory and administrative structures and programs that lower power costs, improve efficiency, and lower the carbon profile of the state's power supply while minimizing adverse impacts on electric system reliability and unnecessary costs to Vermont power consumers;

(F) ensure that carbon credits allocated under this program and revenues associated with their sale remain power system assets managed for the benefit of electric consumers, particularly benefits that will result from accelerated and sustained investments in energy efficiency and other low-cost, low-carbon power system investments;

(G) where practicable, support efforts recommended by the agency of natural resources or the department of public service to stimulate or support investment in the development of innovative power sector carbon emissions abatement technologies that have significant carbon reduction potential.

(d) Appointment of consumer trustees. The public service board, by rule, order, or competitive solicitation, may appoint one or more consumer trustees to receive, hold, bank, and sell tradable carbon credits created under this program. Trustees may include Vermont electric distribution utilities, the fiscal agent collecting and disbursing funds to support the statewide efficiency utility, or a financial institution or other entity with the expertise and financial resources to manage a portfolio of carbon credits for the long-term benefit of Vermont consumers.

(e) Reports. By January 15 of each year, commencing in 2007, the department of public service in consultation with the agency of natural resources and the public service board shall provide to the house and senate committees on natural resources and energy, the senate committee on finance, and the house committee on commerce a report detailing the implementation and operation of RGGI and the revenues collected and the expenditures made under this section, together with recommended principles to be followed in the allocation of funds.

Approved: May 2, 2006

Appendix D – Complete Text of GHG Plan Bill (Act No. 168)

ACT OF THE GENERAL ASSEMBLY 2005-2006

NO. 168. AN ACT RELATING TO ESTABLISHING GREENHOUSE GAS REDUCTION GOALS AND A PLAN FOR MEETING THOSE GOALS.

(S.259)

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. 10 V.S.A. § 578 is added to read:

§ 578. GREENHOUSE GAS REDUCTION GOALS

(a) General goal of greenhouse gas reduction. It is the goal of the state to reduce emissions of greenhouse gases from within the geographical boundaries of the state and those emissions outside the boundaries of the state that are caused by the use of energy in Vermont in order to make an appropriate contribution to achieving the regional goals of reducing emissions of greenhouse gases from the 1990 baseline by:

- (1) 25 percent by January 1, 2012;
- (2) 50 percent by January 1, 2028;
- (3) if practicable using reasonable efforts, 75 percent by January 1, 2050.

(b) Climate change action plan. The secretary will coordinate with the Governor's commission on climate change established by executive order and will consult with any interested members of Vermont's business, agricultural, labor, and environmental communities in developing a climate change action plan. The secretary shall notify each member of the general assembly of the development of this plan and of the opportunity for public comment. This plan shall be developed in a manner that implements state energy policy, as specified in 30 V.S.A. § 202a. Not later than September 1, 2007, the secretary shall present this plan to the committees of the general assembly having jurisdiction over matters relating to the environment, agriculture, energy, transportation, commerce, and public health.

(c) Implementation of climate change action plan. In order to facilitate the state's compliance with the goals established in this section, all state agencies shall consider, whenever practicable, any increase or decrease in greenhouse gas emissions in their decision-making procedures with respect to the purchase and use of equipment and goods; the siting, construction, and maintenance of buildings; the assignment of personnel; and the planning, design and operation of programs, services and infrastructure.

Approved: May 22, 2006

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