New England Governors/Eastern Canadian Premiers

Climate Change Action Plan 2001

August 2001

Prepared by

The Committee on the Environment and
the Northeast International Committee on Energy
of the Conference of New England Governors and Eastern Canadian Premiers

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

The Conference of New England Governors
and Eastern Canadian Premiers

Climate Change Action Plan
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Preamble

In July of 2000, the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted Resolution 25-9 on global warming and its impacts on the environment. The NEG/ECP recognized that global warming, given its harmful consequences to the environment and the economy, is a joint concern for which a regional approach to strategic action is required. The Conference directed its Committee on the Environment, the Northeast International Committee on Energy (NICE), in collaboration with the New Brunswick Premier's Round Table on Environment and the Economy, to:

1) hold a workshop to examine the regional impacts of global warming, discuss options for reducing greenhouse gas (GHG) emissions, and clarify the need for this region to adapt to climate change and explore methods for doing so; and

2) evaluate the conclusions and recommendations of the workshop from a strategic and scientific viewpoint, and to present a summary of findings of the meeting and a recommended action plan to the 2001 annual meeting of the Conference of New England Governors and Eastern Canadian Premiers.

This action plan is the culmination of efforts between the New England governors and the Eastern Canadian premiers and their respective environment and energy agencies. The plan supports and complements other regional, state and provincial initiatives currently being implemented, including the NEG/ECP's Mercury Action Plan and Acid Rain Action Plan. The plan also strives to be consistent with the Canadian National Implementation Strategy for Climate Change prepared jointly by the federal, provincial and territorial governments of Canada.

Improving climate science indicates that aggressive action is needed to reduce greenhouse gas emissions toward the ultimate goals of stabilizing the earth's climate and eliminating the negative impacts of climate change. Although an essential first step, the successful implementation of this action plan will only address a portion of the problem of globally increasing concentrations of greenhouse gases in the atmosphere. Due to the uncertainty of corresponding actions on a worldwide basis, and the lengthy response time necessary for climate

actions to have an impact, it is also prudent for our jurisdictions to undertake adaptive measures to mitigate the impacts of climate change.

The NEG/ECP Climate Change Action Plan identifies steps to address those aspects of global warming which are within the region's control to influence. Specifically, the action plan includes:

- a comprehensive and coordinated regional plan for reducing greenhouse gases;
- a commitment to reach specified reduction targets for the region as a whole;
- a commitment from each state and provincial jurisdiction to carry on its own planning for climate change gas reductions, with a coordinated process that includes disclosure of our progress, and a sharing of information including case studies of how various programs are working;
- a plan for the adaptation of the region's economic resource base and physical infrastructure to address the consequences of climate change;
- a public education and outreach effort to ensure that the region's citizens continue to be educated about global warming and climate change in order to better protect the earth's natural climatic systems and natural environment.

This action plan is intended to reduce the region's emissions of heat-trapping gases and to build the foundation for a longer-term shift to cleaner and more efficient ways of using energy, as well as identifying and adopting adaptive measures.

Under a "business as usual" scenario, the forecast of the emissions of warming pollutants shows one of rapid increase. For example, *Canada's Emissions Outlook: An Update* forecasts that Eastern Canada's emissions will grow from 133.0 megatonnes of carbon dioxide equivalent in 1990 to 160.8 megatonnes in 2020—a 20% increase. Forecasts indicate an approximate 30% increase in CO_2 emissions from New England between 2000 and 2020, in the absence of mitigating action. National CO_2 emissions levels in the U.S. have been growing about 1.1% per year based on the U.S. Department of Energy's Energy Information Agency, with the largest emissions increases coming from the transportation sector.

Given these increases in the face of doing nothing, this plan seeks to reverse the trend. Specifically, the plan presents a set of near-term options for our region that would help protect the climate, reduce GHG emissions and other pollutants, cut energy demands, and promote future job growth by harnessing sustainable energy resources and advanced technologies. Furthermore, the plan will address climate changes that have occurred and that are anticipated through a variety of adaptive measures, such as shifts in agriculture and forestry, building codes, and infrastructure rehabilitation, particularly in coastal areas. By focusing on a set of concrete, achievable, near-term opportunities, we hope to demonstrate leadership and build a foundation from which more dramatic progress can be realized.

Basis for Action

Scientific evidence of the destabilizing human influence on global climatic systems is continuing to build, creating a growing momentum for a response. For example, the Intergovernmental Panel for Climate Change (IPCC), an international body of atmospheric scientists, in its *Third Assessment Report*, states that "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities." The report concludes that the "human influences will continue to change atmospheric composition throughout the 21st century" and that change "will persist for many centuries."

The IPCC predicts that if no action is taken, average rates of warming by 2100 will "be greater than any seen in the last 10,000 years." Such instability will increase the incidence and severity of extreme weather events such as storms, droughts, floods, and heat waves; cause sea levels to rise; shift and/or expand certain disease and pest vectors; and further stress already vulnerable species and ecosystems.

In the *Canada Country Study, Atlantic Region Report*, for example, scientists predicted that sea level rise is the impact with the highest degree of certainty associated with it and will lead to predictable and dramatic impacts. Many of these impacts would be common to the Eastern Canadian provinces and to New England states. The warming would stress our common natural resources—especially in the areas of agriculture, fisheries and forestry.

Another recent analysis of regional impacts of future climate change in the United States, concluded that key issues for New England (and we can assume for the Eastern Canadian provinces as well) were likely to include an increase in weather extremes; stresses on estuaries, bays, and wetlands; changes in precipitation rates impacting water supply and food production; multiple stresses on urban areas; and recreation shifts. In addition, the composition of northeastern forests is anticipated to change dramatically, affecting our biodiversity and our forest industries.

These multiple impacts will have substantial consequences for the cost and quality of life of the region's citizens. For instance, weather extremes are already a feature of the regional environment and an increase in the severity and incidence of such extremes, including ice storms, flooding, nor'easters, hurricanes and drought, would therefore be of considerable concern to states and provinces. Recent examples of such events and their potential impacts include the ice storm of January 1998 and the severe flooding associated with tropical depression Floyd in 1999. Rising sea level and elevated storm surge levels—with associated problems of coastal erosion and saltwater inundation—would likely have severe impacts on our harbors, islands, and for the many communities located near the region's shoreline. Other climate-induced stresses on major urban areas could include increased heat-related illness and death and increased ground-level ozone pollution. In addition to exacerbating some types of air pollution, warming would likely favor increased mosquito and tick populations, with associated public health as well as recreational impacts. Other recreational impacts might include (on the positive side) an extended season for warm-weather activities and (on the negative side) muting of fall foliage and a less viable winter recreation industry. The agriculture sector may benefit from a longer season but will, in all likelihood, need to contend with loss of moisture and increased pests.

Due to the strength of its high technology industries, our region is in an excellent position to develop and implement programs and projects to meet this critical environmental challenge, thus enabling economic opportunities created by a worldwide transition to new technologies and less intensive use of fossil fuel resources. The purpose of this plan is to recommend many actions to reduce regional greenhouse gas emissions in a manner that is cost effective and advances other important regional objectives. These objectives include:

- reducing other pollutant emissions that threaten human health and the natural environment;
- maintaining a reliable supply of reasonably priced energy within our region;
- reducing dependence on energy imports to the region, thereby keeping energy dollars in our regional economy;
- reducing our collective vulnerability to energy price shocks; and
- providing 'early adoption' opportunities to enhance the competitive advantage of our region's technology industries.

Considering the above-noted information, it is believed that the risks posed by global warming are real and will have serious consequences for the region. Atmospheric concentrations of carbon dioxide, methane, nitrous oxide, and other heat-trapping gases are substantially higher than any recorded in recent millennia and these increases are linked to human activity. In recent years, consensus that these increased concentrations could have unpredictable consequences on global weather patterns has grown steadily stronger to the point that action is warranted.

These objectives converge on the wise use of resources—particularly energy. The Climate Change Action Plan builds on presentations and discussions held at the NEG/ECP Climate Change Workshop on March 29th and 30th in Fredericton, New Brunswick. It is the goal of the plan to raise the issue of climate change and to seek opportunities for reducing the region's impact on the climate while benefiting the region's economy. At the workshop, many opportunities were identified to promote greenhouse gas reductions and appropriate adaptation measures while meeting other governmental goals. These included:

- shifting to less polluting energy resources;
- maximizing the efficiency and effectiveness of energy conversion, transport, and consumption within the region;
- encouraging and aggressively promoting new technologies which reduce the use of fossil fuels, thus reducing carbon emissions;
- taking actions to maintain a greater share of the region's energy dollars in the regional economy leading to more productive reinvestment;
- taking actions to support agriculture, fisheries, aquaculture, timber, and other natural resource-based economic sectors to adapt to the climate impacts already being felt;
- encouraging similar sensible action by fellow states/provinces and federal governments;
- designing and building any new infrastructure to minimize the impacts of climate changes that:
  - are likely to occur, based on the extended residence time of gases already released into our atmosphere, and
  - may occur due to inadequate greenhouse gas emission reductions elsewhere;

- preserving green spaces, including forests and farm lands;
- creating new jobs in the area of energy efficiency and renewables; and
- contributing to the long-term economic and environmental sustainability and human health and safety of the states and provinces.

As a result of the Climate Change Workshop, each state and province will initiate a coordinated set of policies and actions aimed at advancing our common goals. This plan provides short descriptions of some key initiatives that jurisdictions may enact to move towards near and mid-term goals (in the context of this action plan, the term *jurisdiction* refers to state and provincial governments in New England and Eastern Canada). Beyond these measures, each jurisdiction will choose additional measures to contribute towards the regional target.

The NEG/ECP Committee on the Environment and Northeast International Committee on Energy (NICE) will appoint a Climate Change Steering Committee, consisting of state and provincial government representatives in our region, to oversee the implementation of the NEG/ECP Climate Change Action Plan. This Steering Committee will report to the Committee on the Environment and the Northeast International Committee on Energy on a regular basis. Both committees will report annually to the Conference of New England Governors and Eastern Canadian Premiers.

Guiding Principles

The New England governors and Eastern Canadian premiers recognize the following principles as guidelines for action on climate change in the region.

1. The need to identify constructive measures to reduce energy and non-energy related GHG emissions wherever possible, such as to:
   a) shift to lower and zero carbon energy sources, wherever economically feasible; and
   b) implement actions that result in higher efficiency in the transportation of passengers and goods.

2. Actions which will support and develop the states' and provinces' economy (so-called "no regrets" measures), when compared to other possible actions, and compared to the cost of inaction, including to:
   a) be cognizant of the energy supply needs of our region and find constructive measures with regional energy reliability in mind; and
   b) involve all segments of society—government, business, and citizens—in contributing to reductions in greenhouse gas emissions.

3. The need to foster long-term environmental and economic sustainability, in order to favour economic growth while decreasing total emissions of carbon and other climate change gases, such that states and provinces may:

a) explore ways to adapt to the already changing climate, to take advantage of any benefits that might come from these changes, and to adapt our infrastructure and natural resource base accordingly; and
b) to explore ways to adapt to climate change in ways that do not increase the production of greenhouse gases in the process, and to be mindful of the health and safety of citizens.

4. The need to work with our federal governments to seek additional solutions that can be addressed at a national level including emission standards, grant programs, and cooperative agreements. There is also a need to work with federal counterparts to improve the energy efficiency of vehicles for sale to the public.

Regional Goals

While there is a recognition that emissions of greenhouse gases are a global problem that ultimately require a global solution, New England states and Eastern Canadian provinces are well positioned to play a leadership role in addressing the issue of climate change. Therefore, our region is establishing a short-term goal to demonstrate its commitment for action over the next decade.

There are a number of precedents that illustrate that a clearly articulated, ambitious policy goal is necessary to spur advancement in relevant technologies. The intent is for the mid-term goal to signal a promising future for energy-efficient and greenhouse gas reducing technologies, and to encourage the growth of related industries in the region. Furthermore, the region will undertake a planning process every five years, beginning in 2005, to ensure that the mid-term reduction target is as aggressive as possible for the year 2015, ten years ahead. This review will be based on findings of new efficiency technologies, changes in the resources available and estimated economic and energy impacts.

The ultimate goal mirrors that of the United Nations Framework Convention on Climate Change, to which both the United States and Canada are signatories. Over the long term, anthropogenic GHG emissions must be reduced to levels that no longer pose a dangerous threat to the climate. The best science available at present indicates that attaining this goal will require reductions in GHG emissions of approximately 75–85% below current levels. The long-term goal will be modified as the understanding of climate science advances.

It is important to note that the goals and results outlined in this plan are for the New England and Eastern Canada region in aggregate and may not be achieved in equal measure by each jurisdiction. It is recognized that differences in emissions characteristics and inventories, social and political systems, economic profiles (including transportation/utility/industrial infrastructures), and resources will lead to varying approaches among the jurisdictions in contributing to the regional goals. However, each jurisdiction in the region commits to participate in the achievement of the regional goals and work with the other states and provinces in the region on this important effort.

Short-term Goal: Reduce regional GHG emissions to 1990 emissions by 2010.

Mid-term Goal: Reduce regional GHG emissions by at least 10% below 1990 emissions by 2020, and establish an iteractive five-year process, commencing in 2005, to adjust the goals if necessary and set future emissions reduction goals.

Long-term Goal: Reduce regional GHG emissions sufficiently to eliminate any dangerous threat to the climate; current science suggests this will require reductions of 75–85% below current levels.

Action Steps for the New England States and the Eastern Canadian Provinces

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

Basis for Action

The process of creating jurisdictional level inventories of existing emissions will assist jurisdictions in the identification of specific measures that will reduce greenhouse gas emissions. A full understanding of the present circumstances and a complete assessment of opportunities for action, in all sectors of the economy, are essential for states and provinces to address climate change issues effectively.

Goal

Jurisdictions will establish a standardized inventory beginning with their 1990 GHG emissions levels, reported every three years.

Recommendations

1. Assign a task force to draft a work plan for the establishment of a regional inventory protocol leading to a consistent basis for the inventories.

2. Distribute state/provincial data sets as they are developed.

3. Coordinate, as appropriate, the regional actions of the Climate Change Action Plan with other programs and efforts outside the region, and with federal initiatives.

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

Basis for Action
To make reductions in greenhouse gases, each jurisdiction will develop its own plan, programs and policies. In this plan, each jurisdiction will choose the measures and programs that will benefit its own economy and work most smoothly for its citizens and businesses. During the separate plan development process, the Steering Committee will work to benefit all jurisdictions by transferring ideas, hosting discussions, and making technology options available, so that all parties may benefit from the experiences of others.

Goal
The creation of a plan by each jurisdiction articulating measures to achieve GHG reductions in view of the regional short and mid-term targets.

Recommendations
4. Report to the NEG/ECP annually on progress made regionally.

5. Recommend items for joint action and develop specific task forces to coordinate projects, as needed.

6. Include a forecast of future energy usage and greenhouse gas emissions in its action plan.

7. Review progress towards meeting GHG objectives, and produce an updated plan every three years. Overall results will be reported regionally.

8. Identify the benefits of action steps and programs and check for consistency among states and provinces including developing common conversion factors.

9. Monitor the results of the actions and policies and share information on their effectiveness.

Action Item 3: The Promotion of Public Awareness

Basis for Action
Public awareness should be a high priority and the region will require the support and participation of its citizens to make the action plan fully effective.

Goal
By 2005, the public in the region will be aware of the problems and the impacts of climate change and what actions they can take at home and at work to reduce the release of greenhouse gases. The public should also be cognizant of adaptive measures they can undertake.

Recommendations
10. Promote a dialogue between traditional conservation organizations, land managers, natural resource-based industries, recreational industries, major energy users, non-government organizations (NGOs) and interested citizens as to the implications of climate change.

11. Develop coordinated education and outreach programs for schools, parks, government and all other appropriate media to communicate why this issue is important to the citizens.

12. Use disclosure and labeling of electrical generation fuel mixes to promote consumer awareness of greenhouse gas production from the utility sector. Under this approach, utilities would provide information on a periodic basis to all retail customers describing the fuel mix it has used to generate electricity. This disclosure statement would also include a disclosure of the electricity product delivered relative to the regional power mix in terms of carbon intensity of electrical production.

13. Measure the effectiveness of efforts to educate the public on the significance of the climate change issue.

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

Basis for Action

Given the high cost of energy, citizens of New England and Eastern Canada will benefit when they use less energy or use lower carbon fuel to operate our government buildings, vehicles and end-use facilities. In addition, demonstrating energy efficiency, clean energy technologies and sustainable practices should be a fundamental task of government.

Goal

The region will reduce end-use emissions of GHGs through improved energy efficiency and lower carbon fuels within the public sector by 25% by 2012, as measured from an established baseline.

Recommendations

14. Implement, or continue to implement, a public sector energy reduction program and designate an appropriate lead agency or individual with the responsibility to implement it. The goal of this program is to reduce greenhouse gases without compromising government services or worker conditions. Authorities and quasi-public entities would be encouraged to join this program voluntarily.

15. Institute policies to encourage the purchase of the most fuel-efficient vehicle available for each type of use, given the availability and utility of the vehicles in the marketplace. Each jurisdiction will also support efforts by municipalities and political subdivisions in establishing similar vehicle purchase programs.

16. Educate government employees about the specific operational changes they can undertake to reduce greenhouse gases and reduce fuel use. Examples include promoting carpooling incentive programs and/or telecommuting policies for government employees; educating building managers on measures to improve efficiency in heating, cooling, and lighting; and providing office managers with information regarding energy-efficient office products and equipment.

17. Establish policies that all state and provincial expenditures related to energy conservation and efficiency, having simple payback periods of ten years or less, will be adopted whenever feasible.

18. Establish jurisdictional policies on sustainable building design to be applied to all state/provincial construction and renovation projects where such practices are feasible and cost-effective. Sustainable design practices include using recycled, energy-efficient, and less toxic materials; day lighting and other energy saving measures; piloting on-site renewable energy projects; and separating and recycling construction and demolition debris.

19. Create a regional market for “Environmentally Preferable Products” (EPPs) by requiring their use at all state/provincial facilities. EPPs include materials with recycled content, those that minimize generation of toxic materials, and products otherwise designed to minimize the environmental impact from manufacture to disposal.

20. Create a regional clearinghouse of “best practices” for the operation and management of public facilities so jurisdictions can share and benefit from each other’s experiences.

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

Basis for Action

The strength of the region's economy depends upon a reliable and a reasonably priced supply of electricity. Increasing the use of renewable sources of energy in electricity production is an important means of improving fuel diversity, and thus the overall reliability of electrical supply. By enhancing regional commitments to energy conservation, states and provinces can slow the increase in electrical demand while maintaining economic growth. The regional commitment to renewable energy and energy efficiency technologies will encourage the development of new industries and the creation of new jobs in the region. In view of these benefits, the following goal has been established:

Goal

By 2025, reduce the amount of CO_2 emitted per megawatt hour of electricity use within the region by 20% of current emissions. It is important to note that Action Items 5 and 6 are interrelated and complementary and the goal is to lower the overall carbon intensity of electricity production.

Recommendation

21. Achieve the above-noted goal through a combination of new renewable energy sources including solar, wind and bioenergy among others, by using lower carbon fuels, increasing the efficiency of the electricity generation and transmission system and the use of new, efficient distributed generation.

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

Basis for Action

The rationale for integrating energy efficiency activities into this plan is to capture the benefits, both economic and environmental that include:

- a reduction of emissions of greenhouse gases as well as of other environmental pollutants;
- a direct electricity cost savings for consumers;
- an increased system reliability for all consumers by reducing energy use during peak demand periods;
- a reduction in the need for additional transmission lines, distribution wires and transformers, avoiding costs for all consumers;
- a reduction in operating and maintenance costs and increased productivity for businesses;
- an increase in incentives to grow our regional energy efficiency industries;
- a reduction of emissions from the need to mine and transport fossil fuels.

Goal

By 2025, increase the amount of energy saved through conservation programs (as measured in tons of greenhouse gas emissions) within the region by 20% using programs designed to encourage residential, commercial , industrial and institutional energy conservation.

Recommendation

22. Reduce the overall regional demand for electricity by increasing the participation of firms and households in programs to encourage energy conservation through reductions in energy use from the industrial sector, where feasible. Actions recommended include: greater participation in the U.S. EnergyStar program and the Canadian Energy Guide Program; participation in programs to promote green building design and energy efficient building codes; and demand side management (DSM) programs to promote energy savings in homes and businesses. This measure will also benefit from actions elsewhere in the plan to enhance public understanding of the need for, and benefits of, energy conservation and renewable energy use.

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

Basis for Action

Adaptation in the northeast means understanding regional climate changes and their impacts on our man-made infrastructure and our natural resources, including surface and ground water, forests and natural wildlife. An increase in temperature will lead to: a degradation in air quality and increase urban smog (with its associated human health impacts); public health risks; insect reproduction and the population of disease-bearing pests such as mosquitoes; the magnitude and frequency of extreme climatic phenomena, as well as changes the water cycle and availability of water. Adaptation also concerns economic activities, such as building and infrastructure planning, coastal land use planning, farming, forestry management, fisheries, transportation, energy services and tourism. Current infrastructure will be subject to periodic reassessment, in response to the impacts of climate changes that will inevitably occur, based on the extended residence time of gases already released into the atmosphere. The New England and Eastern Canadian region is rich in natural resources and many of the economic sectors rely on the health of these resources.

Climate change affects human lifestyles as well. Part of the adaptation work will include measuring impacts on societal and individual activities. There is a need to find ways to minimize the negative social and economic consequences of climate change. This implies examining a spectrum of activities in the context of climate change—for example, which economic activities will expand and which will contract—and developing policies to effectively address these changes.

Goal

To broaden the understanding of forecast climate impacts and to plan the adaptation to these changes, where possible. In addition, the intent is to seek climate adaptation options that do not increase greenhouse gas emissions further.

Recommendations

23. Seek to enhance the understanding of the impacts of climate change by establishing a regional climate change monitoring network and cooperating with scientific and academic research centers. These efforts could include documenting impacts, exchanging information and research, developing modeling capacities, identifying areas most susceptible to catastrophic events and proposing adaptation and mitigation strategies. Perhaps most importantly, there is a need to begin the process of adapting to the inevitable changes in climate that have already been set in motion. In addition, states and provinces will seek to work with all sectors that rely directly on natural resources to adapt production and exploitation processes, where possible.

24. Work on a cooperative scientific basis with groups like the Canadian Impacts and Adaptation Information Network (CAIRNS) in Nova Scotia and Quebec, and U.S. Global Change Research Program's New England Regional Assessment Team, to provide jurisdictions with useful policy-relevant information on a regular basis. Activities could include:

    a) monitoring the living organisms and sensitive habitats for signs of stress or change related to temperature and humidity changes;
    b) assessing the vulnerability of marketed plant and animal species and the market potential of less vulnerable or new species;
    c) increasing the density of climatological stations to gain a better information on regional and local temperature and climatic activity, and to better understand impacts on natural resources such as forests, public health, water bodies and wildlife;
    d) expanding the use of land conservation techniques such as conservation restrictions to protect green spaces, forest resources and soil carbon;
    e) creating an on-going information exchange on the potential impacts of climate change and feasible, sustainable adaptation measures for the natural resource industry base;
    f) mapping and information exchange on the coastal zone for the purposes of adaptation;
    g) encouraging cooperative working relationships among the emergency management agencies to ensure a coordinated approach for likely climate change impacts as a part of their emergency planning;
    h) enhancing the monitoring of forest fires and forest pestilence;
    i) developing new agricultural methods and evaluating the potential of new products;
    j) evaluating new tourism products and strategies;
    k) increasing native tree planting programs in each state/province, improving maintenance of existing trees, and monitoring the carbon uptake and release of planting programs over time to establish a better understanding of the long-term carbon benefits of such programs;
    l) improving development practices to limit the destruction of existing trees and encourage/require the planting of native replacement trees when changing the nature of land use. Adding trees, where feasible, to urban areas to reduce heat island effect, thereby reducing the need for nearby building air conditioning;
    m) expanding and/or establishing farm preservation protection program in each state and province. To further create economic benefits for farms, states and provinces will look to: i) integrating wind power into farms to supplement farm incomes where feasible; ii) promoting better farm practices for climate protection, including the use of methane recapture and pesticide reductions where feasible, and the integration of soil carbon retention; and iii) making efforts to enhance the amount of locally-grown food (to preserve farm lands and to reduce transportation related CO_2 emissions);
    n) establishing a working group of academic, governmental and non-government staff, natural resource managers, and climate change professionals to ensure cross fertilization across natural resource and climate change issues. This effort is intended to lead to a comprehensive evaluation of the impacts to natural resources and the mitigation opportunities among state and provincial natural resource employees.

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

Basis for Action

Slowing the growth of emissions in the transportation sector presents one of the most significant challenges to overall climate change mitigation efforts. In New England and Eastern Canada, transportation is the single largest source of primary energy consumption and of greenhouse gases. Fortunately, the development of new technologies in this area has been fruitful. These new, efficient technologies offer citizens options for reducing their fuel costs while reducing greenhouse emissions. Many additional options for reducing greenhouse gas emissions from the transportation sector simultaneously address the problems of traffic congestion and urban air quality.

Goal

To slow the growth rate of transportation emissions in the near future, to better understand the impacts of transportation programs and projects on overall emissions, and to seek ways to reduce these emissions. Work with federal officials to improve the energy efficiency of vehicles for sale to the public.

Recommendations

25. Promote the shift to higher efficiency vehicles, lower carbon fuels and advanced technologies through the use of incentives and education.

26. Disclose GHG emission impacts from new publicly-funded passenger and freight transportation projects and alternatives.

27. Promote compact development and transit/pedestrian development and other "smart growth" measures to encourage local communities to consider the energy impacts of development and infrastructure construction.

28. Undertake programs designed to manage and reduce transportation demand in communities.

29. Enhance mass transit infrastructure, intermodal connections, optimizing existing services and, where feasible, boosting ridership.

30. Encourage shifts to lower-carbon fuels and advanced vehicle technologies for all transit services.

31. Examine opportunities in freight transportation that would improve the energy efficiency of the movement of goods across the regions.

32. Support the development of inter-connected regional, state, provincial, and local greenway and bicycle/pedestrian pathway systems to promote non-fossil transportation alternatives.

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

Basis for Action

States and provinces are seeking to gain experience in emissions trading as a means of providing the most economically efficient greenhouse gas reductions. To that end, it is believed that the creation of a common set of rules and approaches for the establishment of baseline assessment, and for the evaluation of the benefits of reduction strategies within the region, would be beneficial.

Goal

To create a uniform, coordinated basis for emissions banking and trading. The intent is to create a regional emissions registry and to gain experience in certifying credits and trading within the geographic region. In this way, states and provinces will offer industries, organizations and other entities an ability to disclose their current baseline in advance of actions, so as not to be penalized while making early reductions.

Recommendations

33. Develop an Emissions Trading Registry, and methods for baseline creation and credit generation. Recommendations will be presented to the governors and rremiers at their next Conference after the adoption of this action plan, and the Climate Change Steering Committee will coordinate its efforts on these issues with other states, provinces, federal governments, business entities, non-governmental organizations and any other relevant stakeholders.

34. Encourage the development of markets and implementation of energy efficient and environmentally friendly technologies by working with programs such as the U.S. EPA's Environmental Technology Verification (ETV) program and Environment Canada's TEAM program. Where pertinent, it will be important to utilize technology verification information to aid in jurisdictional purchasing and regulatory/programmatic development.