



Epping: 25% in '25 Plan

The Problem, the Choices, and the Call for Action

At the outset of this plan, it is appropriate to begin with the resolution of the Planning Board for adopting and pursuing these efforts in the context of a recognized leader in this effort, the Cities for Climate Protection and the International Council for Local Environmental Initiatives (ICLEI) Local Governments for Sustainability:

Resolution: Epping Planning Board

Town of Epping, New Hampshire

ICLEI Membership & Cities for Climate Protection® Campaign Participation

WHEREAS, scientific consensus has developed that Carbon CO₂ and other greenhouse gases released into the atmosphere have a profound effect on the Earth's climate; and

WHEREAS, in 2006 the U.S. National Climatic Data Center confirmed clear evidence of human influences on climate due to changes in greenhouse gases; and

WHEREAS, the U.S. Conference of Mayors endorsed the 2005 U.S. Mayors' Climate Protection Agreement initiated by Seattle Mayor Nickels and signed by 238 mayors in the United States as of June 2006: and

WHEREAS, the Urban Environmental Accords adopted by local government delegates during UN World Environment Day 2005 call for reduced emissions through energy efficiency, land use and transportation planning, waste reduction, and wiser energy management; and

WHEREAS, in 2003 the American Geophysical Union adopted a Statement noting that human activities are increasingly altering the Earth's climate and that natural influences cannot explain the rapid increase in near-surface temperatures observed during the second half of the 20th century; and

WHEREAS, in 2001, at the request of the Administration, the National Academy of Sciences (NAS) reviewed and declared global warming a real problem caused in part by the actions of humankind; and

WHEREAS, the 2001 Third Assessment Report from the International Panel on Climate Change (IPCC) and the 2000 U.S. Global Change Research Program's (USGCRP) First National Assessment indicate that global warming has begun; and

WHEREAS, 162 countries including the United States pledged under the United Nations Framework Convention on Climate Change to reduce their greenhouse gas emissions; and

WHEREAS, energy consumption, specifically the burning of fossil fuels, accounts for more than 80% of U.S. greenhouse gas emissions; and

WHEREAS, local government actions taken to reduce greenhouse gas emissions and increase energy efficiency provide multiple local benefits by decreasing air pollution, creating jobs, reducing energy expenditures, and saving money for the local government, its businesses, and its residents; and

WHEREAS, the Cities for Climate Protection® Campaign sponsored by ICLEI - Local Governments for Sustainability has invited the **Town** to join ICLEI and become a partner in the Cities for Climate Protection Campaign;

NOW THEREFORE, BE IT RESOLVED, that the **Town of Epping Planning Board** will join with ICLEI seeking Full Membership and participate in the Cities for Climate Protection Campaign and, as a participant, pledges to take a leadership role in promoting public awareness about the causes and impacts of climate change.

BE IT FURTHER RESOLVED, that the **Town**, through the guidance of the Planning Board, will undertake the Cities for Climate Protection Campaign's five milestones to reduce both greenhouse gas and air pollution emissions throughout the community, and specifically:

- Conduct a greenhouse gas emissions inventory and forecast to determine the source and quantity of greenhouse gas emissions in the jurisdiction;
- Establish a greenhouse gas emissions reduction target;
- Develop an action plan with both existing and future actions which when implemented will meet the local greenhouse gas reduction target;
- Implement the action plan; and
- Monitor and report progress; and

BE IT FINALLY RESOLVED that the **Town of Epping** requests assistance from ICLEI's Cities for Climate Protection Campaign as it progresses through the milestones.

Robert V. Graham III, Chairman
Greg Tillman, Vice-Chair
Cory McPhee, Member
Mike Morasco, Member
Steve Colby, Alternate Member
Susan McGeough, Selectman's Representative

Introduction: Global Climate Change: Fact or Fiction

Scientific evidence has clearly told us that the earth is warming, and that humans are influencing this trend. That was the conclusion of the second scientific assessment by the United Nation's Intergovernmental Panel on Climate Change. Its assessment took two years and involved some 2,000 scientists from around the world (See side bar).

"In its most recent assessment, IPCC states unequivocally that the consensus of scientific opinion is that Earth's climate is being affected by human activities: "Human activities ... are modifying the concentration of atmospheric constituents ... that absorb or scatter radiant energy. ... [M]ost of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations".

IPCC is not alone in its conclusions. In recent years, all major scientific bodies in the United States whose members' expertise bears directly on the matter have issued similar statements. For example, the National Academy of Sciences report, *Climate Change Science: An Analysis of Some Key Questions*, begins: "Greenhouse gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise". The report explicitly asks whether the IPCC assessment is a fair summary of professional scientific thinking, and answers yes: "The IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue".

...

The 928 papers were divided into six categories: explicit endorsement of the consensus position, evaluation of impacts, mitigation proposals, methods, paleoclimate analysis, and rejection of the consensus position. Of all the papers, 75% fell into the first three categories, either explicitly or implicitly accepting the consensus view; 25% dealt with methods or paleoclimate, taking no position on current anthropogenic climate change. Remarkably, none of the papers disagreed with the consensus position."

"BEYOND THE IVORY TOWER: The Scientific Consensus On Climate Change".

Naomi Oreskes, *Science* 3, December 2004: Vol. 306. no. 5702, p. 1686.

This early conclusion was a breakthrough because scientists had earlier insisted that even though changes in the world's climate were being observed, the natural variability of earth's climate could not be ruled out as their cause.

The primary cause of global climate change, according to these findings, is modern society's dependence on inefficient use of fossil fuels and centralized power generation. Our increased burning of fossil fuels in inefficient uses has dramatically increased the concentration of greenhouse gases in the earth's atmosphere.

Among all the human-produced greenhouse gases—so called because they hold the sun's warmth close to the earth—the most significant is carbon dioxide, or CO₂. The increase in CO₂ emissions are widely studied and affect global temperatures. These changes impact the environment, the economy, and our future. This plan, and its implementation, seeks

to address our contribution to this problem in a reasonable, cost-effective manner.

The Planning Board and Climate Change

NH RSA 674:1: Duties of the Planning Board:

- I. It shall be the duty of every planning board established under RSA 673:1 to prepare and amend from time to time a master plan to guide the development of the municipality. A master plan may include consideration of any areas outside the boundaries of the municipality which in the judgment of the planning board bear a relation to or have an impact on the planning of the municipality. Every planning board shall from time to time update and amend the adopted master plan with funds appropriated for that purpose by the local legislative body. In preparing, amending, and updating the master plan:
 - (a) The planning board shall have responsibility for promoting interest in, and understanding of, the master plan of the municipality. In order to promote this interest and understanding, the planning board may publish and distribute copies of the master plan, or copies of any report relating to the master plan, and may employ such other means of publicity and education as it may deem advisable.
 - (b) The planning board shall also have authority to make any investigations, maps and reports, and recommendations which relate to the planning and development of the municipality.
- II. The planning board may from time to time report and recommend to the appropriate public officials and public agencies programs for the development of the municipality, programs for the erection of public structures, and programs for municipal improvements. Each program shall include recommendations for its financing. It shall be part of the planning board's duties to consult with and advise public officials and agencies, public utility companies, civic, educational, professional, research and other organizations, and to consult with citizens, for the purposes of protecting or carrying out of the master plan as well as for making recommendations relating to the development of the municipality.

...
- V. The planning board may, from time to time, recommend to the local legislative body amendments of the zoning ordinance or zoning map or additions thereto.

The Planning Board hereby finds that it is our the duty to examine the issues of the community, including our role in addressing climate change as part of the master plan and our community's economic and environmental future.

The Vision, the Goals, and the Path

“25% in '25” represents the Planning Board’s multifaceted goal in a wide-range of implementation strategies related to an even wider range of concerns that climate change presents. This section of the Master Plan brings together several existing elements and confronts a critical growing concern. Among the sections that are incorporated in this section are relevant to the existing master planning effort as laid out in RSA 674:2:

II: The master plan shall be a set of statements and land use and development principles for the municipality(...):

- (a) A vision section that serves to direct the other sections of the plan. This section shall contain a set of statements which articulate the desires of the citizens affected by the master plan, not only for their locality but for the region and the whole state. It shall contain a set of guiding principles and priorities to implement that vision.

III. The master plan may also include the following sections:

- (a) A transportation section which considers all pertinent modes of transportation and provides a framework for both adequate local needs and for coordination with regional and state transportation plans. Suggested items to be considered may include but are not limited to public transportation, park and ride facilities, and bicycle routes, or paths, or both.
- (b) A community facilities section which identifies facilities to support the future land use pattern of subparagraph II(b), meets the projected needs of the community, and coordinates with other local governments' special districts and school districts, as well as with state and federal agencies that have multi-jurisdictional impacts.
- (c) An economic development section which proposes actions to suit the community's economic goals, given its economic strengths and weaknesses in the region.
- (g) A utility and public service section analyzing the need for and showing the present and future general location of existing and anticipated public and private utilities, both local and regional, including telecommunications utilities, their supplies, and facilities for distribution and storage.
- (i) A regional concern section, which describes the specific areas in the municipality of significant regional interest. These areas may include resources wholly contained within the municipality or bordering, or shared, or both, with neighboring municipalities. Items to be considered may include but are not limited to public facilities, natural resources, economic and housing potential, transportation, agriculture, and open space. The intent of this section is to promote regional awareness in managing growth while fulfilling the vision statements.
- (m) An implementation section, which is a long range action program of specific actions, time frames, allocation of responsibility for actions, description of land development regulations to be adopted, and procedures which the municipality may use to monitor and measure the effectiveness of each section of the plan.

Accordingly, this plan is presented based on the issue of climate change as the unifying theme that brings together concerns related to other planning topics discussed in other locations in the plan. There are several elements to the 25% in '25 program:

1. Develop and implement an action plan for the Town, as an energy user that is fiscally responsible to the tax-payers to reduce GHG emissions by 25% of the projected baseline through cost-saving measures.

Implementation

- The Planning Board will develop a baseline emissions report for the Town of Epping.
 - The Planning Board will work to find projects, grants, and implementation options that not only achieve this reduction in emissions but that also reduce the life-cycle cost of new and existing facilities from the current facilities.
 - The Planning Board will draft an ordinance and regulations that will provide an in lieu of fee for applicants to fund municipal projects if they are unable to comply with the Town requirements for energy efficiency and sustainable design.
2. Support the Board and Selectmen and the School Board on examining options that allow the Town to insure that at least 25 % of the energy purchased for the Town, itself, is from a generation source that is certified to be a renewable sources or is from a town-based local co-generation source.

Implementation

- The Planning Board will work to provide background research and information on PSNH's options for power and other deregulated sources for energy.
- The Planning Board will support efforts to research competitive pricing on such power and assist in educating the Boards on their options for such purchases of power to save operational costs for the tax-payer.
- The Planning Board will draft an ordinance that provides for compliance options that include a distributed generation element and work with applicants to increase the size of such renewable energy facilities to potentially become providers to the Town. This mutual benefit will comply with this goal by providing stable funding to the project, competitive and stable energy costs for the Town, and significant CO2 reductions.
- The Planning Board shall assist the Board of Selectmen and School Board in considering the options available to municipalities to create their own generating facilities that reduce GHG emissions, are cost-effective, and can be financed in such a way as to present no impact to the taxpayer.

3. Increase existing and projected operations for municipal facilities so that the overall energy efficiency rating improves by 25%.

Implementation

- The Planning Board will work with the Board of Selectmen and the School Board to identify cost-effective and cost-beneficial means to increase energy efficiency.
- The Planning Board will provide research and support for energy performance contracting, including working with other Towns and the State of New Hampshire officials who have undertaken similar projects, particularly the recent success found in Belmont MA.
- The Planning Board will support efforts to fund such programs to insure that there is no impact to the taxpayer for initial costs and that long-term savings will result from lower energy costs by utilizing performance contracting and programs available through the CORE energy programs through the NH PUC and PSNH.

4. Provide options and requirements that will result in new residential and non-residential developments to have 25% of their energy needs met by using distributed generation through renewable sources and/or cogeneration units.

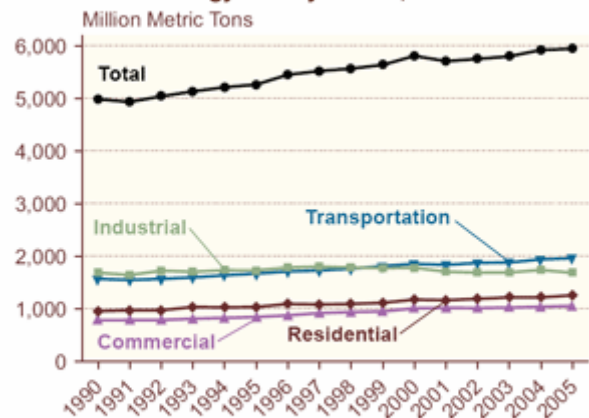
Implementation

- The Planning Board will research and propose an ordinance that meets these objectives that mirrors and promotes the use of economic incentives from federal tax incentives and grant programs and regional and private loan and guarantees available with the State of NH RSA 162-A:9-a Energy Conservation Loan Program.
- The Planning Board must assess and evaluate, on a yearly basis, not only the success of the ordinance, but the changes in funding opportunities and advances in technology to insure that the proposed ordinance maintains its own sustainability as promotional legislation.

5. Provide options and requirements that will result in new residential and non-residential developments to have a 25% reduction in GHG emissions as compared to minimally required conventional construction and operations by 2025.

Implementation

Figure ES3. U.S. Carbon Dioxide Emissions from Energy Use by Sector, 1990-2005



Note: Sectoral emissions include both direct emissions and emissions attributable to purchased electricity.
Sources: Estimates presented in this report.

- In conjunction with the above discussed ordinance, the Planning Board will include provisions requiring site construction operations and post-construction operational requirements for non-residential developments to achieve these goals.
- Include provisions that achieve the requirements of this goal by insuring compliance with and, in targeted elements, exceeding the minimum requirements of the State Energy Code, NH RSA 155-D through the authority provided for in RSA 674:51.
- The Planning Board shall work to insure compliance with RSA 155-D:8:

155-D:8 Change of Occupancy. – Any change in the occupancy or use of any building or structure which would require an increase in demand for either fossil fuel or electrical energy supply, shall not be permitted unless such building or structure is made to comply with the requirements of this chapter.

6. Provide for an education and outreach program working with all Town Officials, Boards, and Commissions to bring options and choices for existing residents and businesses in Town that can result in a 25% reduction in GHG emissions as compared to their current operations by 2025. This will include specific provisions to assist in reducing water usage and both the solid and liquid waste stream.

Sector	Million Metric Tons Carbon Dioxide		Percent Change	
	1990	2005	1990-2005	2004-2005
Residential	953.7	1,253.8	31.5%	3.3%
Commercial	780.7	1,050.6	34.6%	1.6%
Industrial	1,683.6	1,682.3	-0.1%	-3.1%
Transportation	1,566.8	1,958.6	25.0%	1.0%

Note: Electric power sector emissions are distributed across sectors.

Implementation

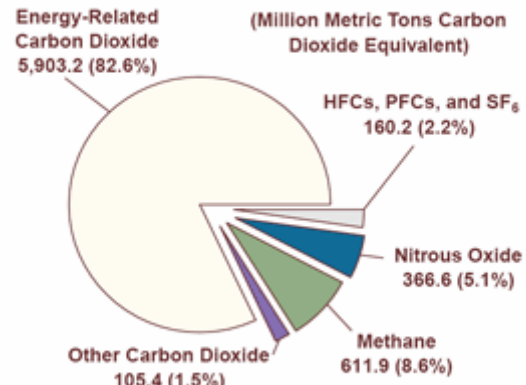
- The Planning Board will work to develop partnerships with non-profits, other governmental agencies, and interested parties to result in a resource for describing our program, our goals and information for residents to make informed choices about their own impacts on the global environment. Such a program shall be voluntary and private. The following options should be targeted for providing cost-effective options to our residents.
 - Informational and public meetings on energy conservation and sustainability in conjunction with local and regional education institutions, non-profits, and government officials who can provide guidance and techniques for achieving these goals.
 - Outreach on existing programs available such as tax incentives, Energy Star programs, electric choice programs, and rebates

through local utilities for efficiency measures that are all cost-effective options for residents.

The Baseline:

The first step in assessing our status and progress is to develop the baseline GHG emission characteristics. There are several helpful software programs that can be used in conjunction with our existing data to provide this element and following the adoption of the Master Plan, this first step must be undertaken. Working with “ICLEI and the Cities for Climate Protection” (hereinafter “CPP”) will allow the Planning Board to build upon other community efforts throughout the world and grant access to a powerful and understandable toolset to accomplish this goal. The remainder of this section is left *reserved* for the incorporation of these studies and the reporting information.

Figure ES1. U.S. Greenhouse Gas Emissions by Gas, 2005



Source: Tables ES2 and ES3.

RESERVED: Modeling GHG emissions and our projections for improvement.

The following items must be called out specifically as part of this section of the 25 in 25 plan baseline:

- Itemize the existing data available on dwelling units, age of units, and project growth of residential development.
- Itemize commercial and industrial uses and facilities and then develop a reasonable projected growth in this sector based upon economic analysis of sector attractiveness to the Epping location – particularly with respect to the impact of the crossroads of Routes 101 and 125.

Defining the terms:

Climate Change:

The terms climate and weather are often used interchangeably. In fact, they are different: Climate is the average pattern of weather in a given place, while weather is a condition of the atmosphere at one particular place and time. The measures of weather are wind speeds, temperature, humidity, atmospheric pressure and precipitation. The weather often changes substantially from day to day. Climate, on the other hand, refers to the big picture. It includes the broader overall relationships between the earth's atmosphere, oceans, land, and solar radiation. Weather patterns are a product of climate.

While humans are more or less used to dealing with changes in the weather, we do not have experience with extreme climate change. The direct effects of climate change will include changes in weather, soil moisture, and sea level. These changes are likely to have long-lasting and widespread adverse impacts on ecological systems, human health, and economies.

The Greenhouse Effect:

The greenhouse effect is the process whereby energy from the sun is trapped by the atmosphere to cause warming. Much of this energy is infrared radiation emitted from the earth's surface. The greenhouse effect keeps the Earth much warmer than it would be otherwise, and is essential for life on earth, but rapidly increasing concentrations of greenhouse gases threaten to severely destabilize the climate.

U.S. Anthropogenic Emissions of Greenhouse Gases, 1990-2005	
	Carbon Dioxide Equivalent
Estimated 2005 Emissions (Million Metric Tons)	7,147.2
Change Compared to 2004 (Million Metric Tons)	42.7
Change from 2004 (<i>Percent</i>)	0.6%
Change Compared to 1990 (Million Metric Tons)	1,034.4
Change from 1990 (<i>Percent</i>)	16.9%
Average Annual Increase, 1990-2005 (<i>Percent</i>)	1.0%

Greenhouse Gas:

A greenhouse gas is any gas in the atmosphere that contributes to the greenhouse effect. The major greenhouse gases are carbon dioxide, methane, nitrous oxide, and water vapor. Of these, carbon dioxide (CO₂) is the most important of the emissions produced human activities.

How Will Climate Change Affect Life in New Hampshire?

The New Hampshire Department of Environmental Services has issued several fact sheets on the impacts of global climate change:



The Science Is Compelling

In the Northeast, the 1990s were the warmest decade in recorded history. The Northeast's average annual temperature has increased by about 1.8°F since 1899. In the White Mountains, spruce forest abundance has been declining since 1800. Climate records from Hanover show a 3°F increase in yearly temperatures and a 4°F increase in summer temperatures over the past 150 years. Glaciers at mid-latitudes are receding. Average global surface temperatures are approximately 1°F higher than average temperatures in the 19th century. Once just climate anomalies, intense rain and snow events and fewer extremely low minimum temperature events are now becoming more the norm. Undeniably, global climate is changing and potential impacts may be serious.

What is Global Climate Change?

Life on Earth is possible because the sun's energy warms the Earth and its atmosphere. As this warmth radiates back into space, a portion is absorbed by a delicate balance of heat-trapping gases in the atmosphere, creating an insulating layer. The insulating layer, functioning much as a conventional greenhouse, acts to elevate temperatures on Earth. This "greenhouse effect" is a necessary natural global mechanism. Without it, the Earth's climate would be hostile to human life. Human contributions to greenhouse gases have led to an "enhanced greenhouse effect," often referred to as climate change or global warming. Today's atmospheric concentrations of carbon dioxide (CO₂), the primary greenhouse gas, are 30 percent above the pre-industrial levels of 200 years ago. At present rates, they may double as early as 2050.

Potential Climate Change Impacts On New Hampshire

New Hampshire's social and economic health is predicated in part upon the health of its lakes and rivers, oceans and beaches, mountains, scenic towns, and natural areas. Natural features and aesthetic beauty contribute significantly to New Hampshire's fiber. Global climate change will affect the climate of New Hampshire. Doubling CO₂ from pre-industrial levels is predicted to raise global average temperatures between 1.8°F and 6.3°F. Parts of New Hampshire could experience even slightly warmer trends. Higher temperatures may increase extreme events, and we may experience periods of winter thaw followed by

intense cold; spring and summer drought; and summer heat stress. Serious impacts to New Hampshire may include:

Impacts on New Hampshire Ski Industry

- Loss of 10 - 20 percent of ski season days, representing a loss of \$42 million to \$84 million in direct and indirect spending in New Hampshire.

Impacts on New Hampshire Forests

- Ecological collapse for several tree species, including beech, maple, and hemlock (an important species for deer during the winter).
- Widespread tree mortality, including spruce and others; decreases in vegetation density of 25 - 75 percent; extensive wildfires; large increases in pest and pathogen outbreaks; and a lag in the establishment of new forests for several decades.
- Northern movement of other local tree species from 100 - 300 miles.
- Potential large-scale die-offs of sugar maple, on average a \$3 - \$3.5 million dollar industry.

Impacts on New Hampshire Coasts

- Sea level rise of 12 - 20 inches, causing large scale alteration of Great Bay, reduction of coastal estuaries and flooding of rivers, as well as potentially large revenue losses from coastal tourism, a \$484 million generator for New Hampshire.
- Huge infrastructure investments to erect dikes and dredge channels to "stem the tide."

Impacts on New Hampshire Foliage

- Dulling and browning of foliage season due to tree die-offs, species substitution, and "climate stressed" unhealthy trees. New Hampshire foliage travelers on average spend a total of \$292 million annually.

Impacts on New Hampshire Fishing

- Loss of cold water fishing: 50 - 100 percent eradication of rainbow, brook, and brown trout fishing, a \$150 million New Hampshire industry.

What We All Can Do

Many different strategies can be used in combination to mitigate human-caused

emissions of carbon dioxide and other greenhouse gases caused primarily by the burning of fossil fuels. The following are often mentioned at the international and national level. Several of these we can adopt at the local level:

- *Use less fossil fuels by:*
 - Driving less and putting high efficiency vehicles into use.
 - Where possible, using renewable energy sources such as solar, wind, and biomass.
 - Buying and using energy efficient products.
 - Switching from coal and oil to natural gas.
- Plant trees, which absorb CO₂, the major greenhouse gas.
- Encourage elected officials to encourage developing countries to control greenhouse gases.

For More Information

For more information on climate change and what is being done at the international and national levels, or to find out what you can do to reduce greenhouse gas emissions, visit www.des.state.nh.us/ard/climatechange/ or contact the DES Air Resources Division at 1-800-498-6868.

The above is from:

[ARD-23 Global Climate Change and Its Impact on New Hampshire](#)

The NH DES also offers the following fact sheets with more detail on specific projected impacts to the NH economy and way of life:

[ARD-24 Global Climate Change and Its Impact on New Hampshire Skiing](#)

[ARD-25 Global Climate Change and Its Impact on New Hampshire Fall Foliage and Maple Sugar Industry](#)

[ARD-26 Global Climate Change and Its Impact on New Hampshire Cold Water Fishing](#)

[ARD-27 Global Climate Change and Its Impact on New Hampshire's Forest and Timber Industries](#)

Implementation, Assessment, Modification.

The following draft ordinance and further authorization for regulatory adoptions is provided as a starting point for these efforts. The goals of the ordinance are consistent with this chapter's vision for the master plan.

The Planning Board has proposed this ordinance following the research embodied herein and under the authority of RSA 674:17(I):

“(j) To encourage the installation and use of solar, wind, or other renewable energy systems and protect access to energy sources by the regulation of orientation of streets, lots, and buildings; establishment of maximum building height, minimum set back requirements, and limitations on type, height, and placement of vegetation; and encouragement of the use of solar skyspace easements under RSA 477. Zoning ordinances may establish buffer zones or additional districts which overlap existing districts and may further regulate the planting and trimming of vegetation on public and private property to protect access to renewable energy systems.”

NH RSA 674:21, Innovative Land Use Controls:

“I. Innovative land use controls may include, but are not limited to:

- ... (g) Impact zoning.
- (h) Performance standards.”

NH RSA 674:36 Subdivision Regulations. –

...

II. The subdivision regulations which the planning board adopts may:

(k) Encourage the installation and use of solar, wind, or other renewable energy systems and protect access to energy sources by the regulation of orientation of streets, lots, and buildings; establishment of maximum building height, minimum set back requirements, and limitations on type, height, and placement of vegetation; and encouragement of the use of solar skyspace easements under RSA 477.

...

(m) Require innovative land use controls on lands when supported by the master plan.

III. The subdivision regulations of the planning board may stipulate, as a condition precedent to the approval of the plat, the extent to which and the manner in which streets shall be graded and improved and to which water, sewer, and other utility mains, piping, connections, or other facilities shall be installed.

NH RSA 674:44 Site Plan Review Regulations. –

...

II. The site plan review regulations which the planning board adopts may:

- (i) Require innovative land use controls on lands when supported by the master plan;
and

III. The site plan review regulations which the planning board adopts shall:

- (c) Specify the general standards and requirements with which the proposed development shall comply, including appropriate reference to accepted codes and standards for construction;

IV. The site plan review regulations of the planning board may stipulate, as a condition precedent to the approval of the plat, the extent to which and the manner in which streets shall be graded and improved and to which water, sewer, and other utility mains, piping, connections, or other facilities shall be installed. The regulations or practice of the planning board:

For further support, the Planning Board has considered state level policy and our ability and obligation to assist in the deployment of that policy as enacted by the state legislature. The following provisions have provided guidance in these efforts:

Limited Electrical Energy Producers Act:

362-A:1 Declaration of Purpose. – It is found to be in the public interest to provide for small scale and diversified sources of supplemental electrical power to lessen the state's dependence upon other sources which may, from time to time, be uncertain. It is also found to be in the public interest to encourage and support diversified electrical production that uses indigenous and renewable fuels and has beneficial impacts on the environment and public health. It is also found that these goals should be pursued in a competitive environment pursuant to the restructuring policy principles set forth in RSA 374-F:3. It is further found that net energy metering for eligible customer-generators may be one way to provide a reasonable opportunity for small customers to choose interconnected self generation, encourage private investment in renewable energy resources, stimulate in-state commercialization of innovative and beneficial new technology, enhance the future diversification of the state's energy resource mix, and reduce interconnection and administrative costs. However, due to uncertain cost and technical impacts to electric utilities and other ratepayers, the general court finds it appropriate to limit the availability of net energy metering to eligible customer-generators who are early adopters of small-scale renewable electric generating technologies.

New Hampshire Municipal Bond Bank--Small Scale Power Facility Division:

374-E:2 Declaration of Purpose. – It is hereby declared to be in the public interest and to be the policy of the state to foster and to promote, by all reasonable means, the provision of adequate markets and facilities for the borrowing of money by

municipalities for the financing of small scale power facilities from proceeds of bonds or notes issued by such municipalities, and to assist such municipalities in fulfilling their needs for such purposes by creation of indebtedness and to the extent possible to encourage continued investor interest in the bonds or notes of such municipalities as sound and preferred securities for investment. It is in the public interest and it is the policy of the state to encourage its municipalities to pursue their independent development of electric power and the financing of small scale power facilities for the production of electric power and to assist them by making funds available at reduced interest costs for orderly financing of such facilities, particularly for those municipalities not otherwise readily able to borrow for such purposes at reasonable rates of interest. It is further declared that credit and municipal bond market conditions require the exercise of the powers of the state in the interest of its municipalities to further and implement such policies by authorizing the New Hampshire municipal bond bank, established under RSA 35-A, to create a separate division having full powers to borrow money and to issue its bonds and notes to make funds available at reduced rates and on more favorable terms for borrowing by such municipalities through the purchase by such division of the municipal small scale power facility bonds and notes of such municipalities in fully marketable form and by granting broad powers to such division to accomplish and to carry out these policies of the state which are in the public interest of the state and of its taxpayers and residents.

Electric Utility Restructuring:

- 374-F:1 Purpose. – I. The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services.
- II. A transition to competitive markets for electricity is consistent with the directives of part II, article 83 of the New Hampshire constitution which reads in part: ""Free and fair competition in the trades and industries is an inherent and essential right of the people and should be protected against all monopolies and conspiracies which tend to hinder or destroy it." Competitive markets should provide electricity suppliers with incentives to operate efficiently and cleanly, open markets for new and improved technologies, provide electricity buyers and sellers with appropriate price signals, and improve public confidence in the electric utility industry.

Appendices:

The following documents are incorporated by reference herein since it is unnecessary to repeat or reasonable to paraphrase their documentation. We have selected some targeted research on the topic to better inform this effort and interest parties who have elected to read this Chapter of the Master Plan:

State of New Hampshire

New Hampshire Energy Plan, Governor's Office of Energy and Community Services, November 2002.

<http://www.nh.gov/oep/programs/energy/documents/Cover.pdf>

Energy Policy Advisory Board, Annual Report, June 6, 2006.

<http://www.puc.state.nh.us>

Governor Lynch's Executive Order 2005-04.

http://www.nh.gov/governor/orders/documents/Executive_order_2005-4.pdf

Jordan Institute (NH) -

Commission to Study the Relationship Between Public Health and the Environment. November 1, 2002.

<http://www.thejordaninstitute.org/pdfs/Fnl%20Rpt%20Commission%20Relationship%20PH%20and%20Environment.pdf>

Building Schools in NH – Getting to Integrated Design and High Performance. November 20, 2003.

http://www.thejordaninstitute.org/pdfs/Kendall%20Foundation%20Workshop%2002_06.pdf

New Hampshire CLF-

Climate's Long-term Impacts on Metro Boston, August 13, 2004.

http://clf.org/uploadedFiles/CLIMB_Final_Report.pdf

Impact of RGGI on Overall Business Operating Costs in Rhode Island. December 12, 2005.

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