

**Town of \_\_\_\_\_**

## **Master Plan**

***DRAFT Chapter – What are the uniting themes of your town energy plan?***

Prepared by the  
\_\_\_\_\_ **Energy Commission**

***Please insert  
date***

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## MASTER PLAN

### **DRAFT CHAPTER: *What are the unifying themes of your town energy plan?*** Town of \_\_\_\_\_, New Hampshire

#### **1.0 INTRODUCTION**

##### **1.1 Purpose**

*What would you say is the purpose of this Energy Chapter? Why is it important? What are its benefits, what does it target, and how might its implementation be achieved?*

##### **1.2 How do you define your town's overarching energy goal?**

*What is the main objective of your town's overarching energy goal? Please define it here. What aspects of community life (e.g. buildings, transportation, lighting, awareness) can your community address to achieve it? Please list those below:*

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### 1.3 Rationale for Energy Efficiency and Conservation

#### **Cost and Efficiency**

*What is the potential for energy efficiency in each sector (e.g. building, residential, lighting, vehicles) in your town? Please include a discussion of current energy use in your response.*

*Please consider how climate change could affect various sectors of the regional economy, including economic and public health.*

#### **Land Use and Planning**

New Hampshire enabling statutes outline the purpose of planning and land use regulations. Pertinent sections which relate to environment and energy include the following sections:

##### **RSA 672:1**

III. "Proper regulations enhance the public health, safety and general welfare and encourage the appropriate and wise use of land"

III-a. "Proper regulations encourage energy efficient patterns of development, the use of solar energy, including adequate access to direct sunlight for solar energy uses, and the use of other renewable forms of energy and energy conservation. Therefore, zoning ordinances should not unreasonably limit installation of solar, wind, or other renewable energy systems or the building of structures that facilitate the collection of renewable energy, except necessary to protect the public health, safety, and welfare."

NH RSA 155-A:2 (VI) permits communities to adopt stricter measures than the New Hampshire State Building Code. NH RSA 72:61-72 permits municipalities to offer a property tax exemption on solar, wind, and wood heating energy systems.

*How else might reductions in energy consumption be achieved in your town? Please list and describe those concepts (e.g. conservation measures, smart growth, alternative transportation) in the table below:*

**Table 1. Summary of implementation strategies to reduce energy consumption.**



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### ***New Hampshire Climate Action Plan***

“Assigned by Governor Lynch, the Climate Change Policy Task Force developed in 2008 the New Hampshire Climate Action Plan. The Plan aims at achieving the greatest feasible reductions in greenhouse gas emissions while also providing the greatest possible long-term economic benefits to the citizens of New Hampshire. The most significant reductions in both emissions and costs will come from substantially increasing energy efficiency in all sections of the economy by continuing to increase sources of renewable energy, and designing our communities to reduce reliance on automobiles for transportation. The Climate Action Plan recommends that New Hampshire strive to achieve long-term reduction in greenhouse gas emissions of 80 percent below 1990 levels by 2050. The Climate Change Policy Task Force also recommends 67 specific actions to achieve the following goals:

- Reduce greenhouse gas emissions from buildings, electric generation, and transportation;
- Protect natural resources to maintain the amount of carbon sequestered;
- Support regional and national initiatives to reduce greenhouse gases;
- Develop and integrated education, outreach and workforce training program; and
- Adapt to existing and potential climate change impacts.

It is envisioned that with participation from all communities, the New Hampshire Climate Action Plan will benefit the economy, increase state and regional energy security, and improve environmental quality.” (Qtd. from Atkinson Energy Chapter draft)

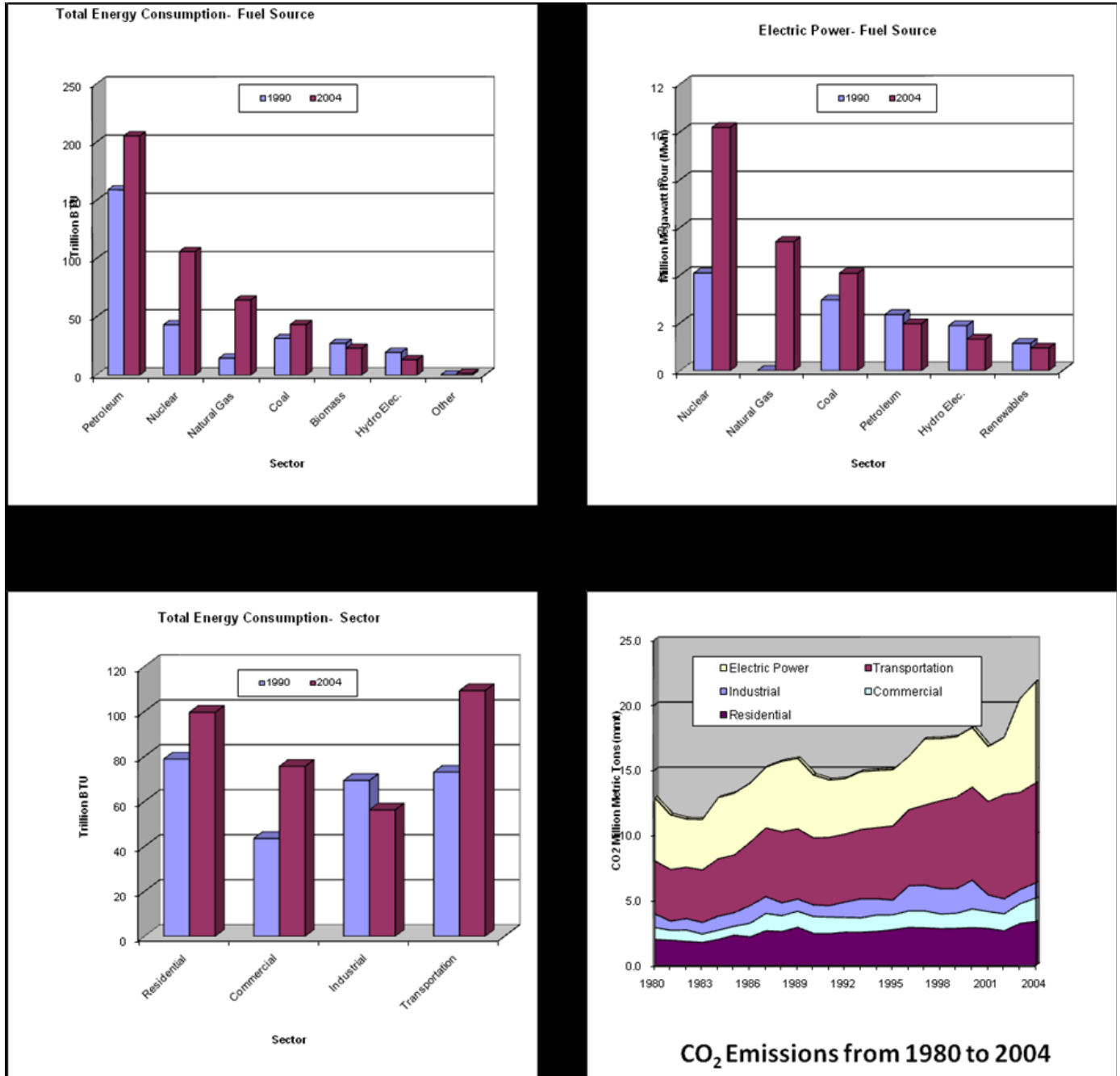
### ***Greenhouse Gas Emissions Reductions***

“The increasing trend of carbon dioxide emissions to our atmosphere in recent decades has caused concern over its effect on environmental ecosystems and climate worldwide. Concentrations of carbon dioxide, a byproduct of the burning of fossil fuels, have increased rapidly in the atmosphere as consumption of fossil based fuels has also increased. Alterations to our region’s climate could result in changes or decline in certain sectors of the economy, including winter tourism, agriculture, maple syrup production, coastal real estate values (due to sea level rise and increased storm intensity), and health costs associated with respiratory health and heat related illnesses.

The NH Climate Action Plan calls for a reduction in emissions of 20 percent below 1990 levels by 2025, and 80 percent below 1990 levels by 2050. In order to meet these reduction goals statewide, NH communities must engage in local energy planning that includes strategies for decreasing their emissions overall.

The figure below illustrates energy usage and CO<sub>2</sub> emissions by energy sector in New Hampshire from 1990 to 2004.” (Qtd. from Atkinson Energy Chapter draft)

**Figure 1. Energy use and carbon dioxide emissions by energy sector in New Hampshire from 1990 to 2004 [Source: New Hampshire Climate Action Plan (2008)]**



## 2.0 ROLE OF THE \_\_\_\_\_ ENERGY COMMITTEE

### 2.1 Introduction to NH Local Energy Committees

*Did your town pass the New Hampshire Climate Change Resolution to call on the federal government to prioritize climate change policy and enable the formation of a local energy committee (LEC)? If so, please describe what your town has done or is doing relating to its LEC, or equivalent governing body.*

### 2.2 Mission Statement and Role

#### Mission Statement

*What is the mission of your town's Energy Committee?*

#### Roles

*What is the role of your town energy committee? Please list the key aspect(s) of that role here:*

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- 
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*How often does your Energy Committee meet? Are they open to the public? How are they made known? What is the basic structure of meetings? Does the committee keep minutes? If so, where are they available?*

### 2.3 Goals of Your Town's Energy Committee

What are the general goals relating to energy efficiency, use and conservation of your town's Energy Committee? Please summarize them in the table below:

**Table 2. General, short term and long term goals of the \_\_\_\_\_ Energy Committee.**

<b>General Goals</b>	<b>Short Term Goals (1 year)</b>	<b>Long Term Goals (2 or more years)</b>
<i>What are some general goals of your town's energy committee? Summarize each of them in this column.</i>	<ul style="list-style-type: none"><li>▪ <i>What are some steps your town will take in the short term to meet each general goal?</i></li><li>▪</li></ul>	<ul style="list-style-type: none"><li>▪ <i>What are some steps your town will take in the long term to meet each general goal?</i></li><li>▪</li></ul>








## 2.4 Energy Inventory and Audits

### Municipal Inventory

*Has your Energy Committee completed an energy inventory recently? If so, when, and what did it include? Then, please summarize the results of the inventory in a table like the one below:*

**Table 3. Inventory of municipal buildings and facilities.**

<b>Municipal Building</b>	<b>Date Constructed (and approximate date of renovation if applicable)</b>	<b>Total Area (square feet)</b>
Community Center	1914 (1950's)	6,800
Fire Station	2000	11,000
Police Station	1800's (1900's)	3,575
...	...	...
...	...	...
<b>Total square footage</b>	<b>--</b>	<b>30,945</b>

### 2.5 Your town's Energy Committee Partners

*What energy partners in the community has your town Energy Committee identified? Please list them below:*

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*Which of your community's political and governmental organization has your town energy committee gained support from? Please list those below:*

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- 
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*With whom does your town Energy Committee hope to partner in the future with regard to energy issues?*

## **2.6 Energy Related Issues in the Community**

*What issues relating to energy consumption and use in the community has your town Energy Commission identified? Please list them below:*

## **2.7 \_\_\_\_\_ Energy Committee Findings**

*What findings relating to energy efficiency and conservation has your town Energy Committee identified? Please list these here:*

Issue 1:

Issue 2:

### 3.0 HOW TO DEVELOP YOUR ENERGY GOALS INTO THE TOWN

#### 3.1 Opportunities for Implementation

***Implementing energy goals: please summarize your strategy here in this title***

*How will your town achieve its energy goals outlined in this chapter? Please include an assessment of each strategy, including the ones listed below, in your implementation plan:*

##### ***Regulatory Measures***

###### *Zoning and Ordinances*

*What can your town do with its zoning and ordinances to develop its own energy goals? Please describe this here.*

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###### *Subdivision and Site Plan Review Regulations*

*What could your town do with its subdivision and site plan review regulations to achieve its own energy vision at the site and lot level? Please describe this here.*

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##### ***Voluntary Incentives***

*What could your town do with voluntary incentives to achieve its own energy vision? Please describe this here.*

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##### ***Redevelopment and Infill***

*What could your town do with redevelopment and infill to achieve its own energy vision? Please describe this here.*

**Energy Efficiency in New Construction**

“Leadership in Energy and Environmental Design (LEED) Rating System is a tool created in 2000 by the US Green Building Council (USGBC), a private non-profit organization, to help promote and measure sustainable building design. The LEED Rating System is based on non-prescriptive environmental goals organized into five categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. Each category contains several goals which are assigned a numerical value. Based on the number of goals that a project is able to successfully implement, the building is awarded a LEED rating. LEED offers a wide range of building program requirements for various types of construction including:

- LEED-NC: New commercial construction and major renovation projects
  - LEED-EB: Existing building operations
  - LEED-CI: Commercial interiors projects
  - LEED-CS: Core and shell projects
  - LEED-H : Private residences
  - LEED-ND: Neighborhood development”
- (Qtd. From Atkinson Energy Chapter draft)

**Transportation, Land Use and Environmental Planning**

**3.2 Community Energy Needs for the Future**

*How much will you're your community's population change in the mid to long-term (~30 years), at least according to the NH Office of Energy and Planning (NHOEP) estimates? Please summarize these projections in a table like the one below:*

**Table 4. Historic population and population projections to 2030 for \_\_\_\_\_.**

US Census Data		NHOEP (estimated)			NHOEP (projections)		
1990	2000	2007	2010	2015	2020	2025	2030

*How might this change influence the way your community assesses its current growth and development patterns and energy supply?*

#### **4.0 YOUR TOWN'S VISION FOR ENERGY-WISE PLANNING AND DEVELOPMENT**

##### **4.1 How do you define your town's vision of its energy-wise form of development?**

*How do you define the vision of your town's energy-wise form of development? What is the primary philosophy of this vision? Please describe these here. What are some indicators of meeting this vision? Please list and describe these indicators in the table below:*

**Table 5. Indicators of your town meeting its vision of its own energy-wise form of development**

**Sector**

***Indicators***

##### **4.2 Rationale for your town's vision of its energy-wise form of development**

*How does meeting your town's vision of its energy-wise form of development benefit the community?*

### **4.3 Planning for your town's vision of its energy-wise form of development**

*What will your town do about its planning processes and practices to meet its vision for energy-wise development? Please list and describe these processes, principles, and outcomes of planning below:*

#### *Planning Processes*

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#### *Planning Practices*

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- 
- 
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#### *Planning Outcomes*

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-

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#### **4.4 Principles and Practices of your town's vision of its energy-wise form of development**

##### ***Principles of your town's vision of its energy-wise form of development***

*What are the principles (e.g. efficiency, quality, health) of your town's vision of its energy-wise form of development? Please summarize them in the table below:*

**Table 6. Summary of principles and practices.**

***Principles***

***Sectors***

***Practices***

***Practices of your town's vision of its energy-wise form of development***

*What will your town do to practice its energy-wise form of development? Please list and describe these below:*

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## 5.0 RECOMMENDATIONS

*What are the goals of your community's recommendations on its own energy policy? For ideas on specific recommendations and resources, please see notes from RSA Master Plan Energy Chapter Outline (e-mail: [lbo@uvlsrpc.org](mailto:lbo@uvlsrpc.org)) Please list and briefly describe these recommendations below:*

1.

2.

3.

4.

5.

6.

7.

8.

## **6.0 ACTION AND IMPLEMENTATION PLAN**

*This section is optional and would be based on the town prioritizing its goals for energy efficiency and conservation, and sustainable growth as contained in this Chapter, and developing action items to achieve them.*