

# TOWN OF ATKINSON

## Master Plan

### Chapter - Energy Efficiency and Sustainable Development

Prepared for the  
**Atkinson Energy Committee**  
by the Rockingham Planning Commission

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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
	1.1 Purpose	1
	1.2 What is Energy Efficiency and Conservation?	1
	1.3 Rationale for Implementing Energy Efficiency and Conservation	2
<b>2.0</b>	<b>ROLE OF THE LOCAL ENERGY COMMITTEE .....</b>	<b>5</b>
	2.1 Introduction to Local Energy Committees	5
	2.2 Mission Statement of the AEC	5
	2.3 Goals of the AEC	6
	2.4 Energy Inventory and Audits	7
	2.5 AEC Partners	7
	2.6 Energy Issues in the Community	8
	2.7 AEC Findings	8
<b>3.0</b>	<b>HOW TO DEVELOP AND GROW WITH EFFICIENCY .....</b>	<b>9</b>
	3.1 Opportunities for Implementation	9
	3.2 Community Energy Needs	10
<b>4.0</b>	<b>SUSTAINABLE GROWTH AND DEVELOPMENT .....</b>	<b>11</b>
	4.1 What Is Sustainability?	11
	4.2 Rationale for Sustainable Development	11
	4.3 Planning for Sustainable Growth and Development	12
	4.4 Sustainable Development Principles and Practices	13
<b>5.0</b>	<b>RECOMMENDATIONS .....</b>	<b>15</b>
<b>6.0</b>	<b>ACTION AND IMPLEMENTATION PLAN .....</b>	<b>16</b>
 <b>Tables</b>		
	Table 1. Summary of implementation strategies to reduce energy consumption	2
	Table 2. General, short term and long term goals of the Atkinson Energy Committee	6
	Table 3. Inventory of municipal buildings and facilities	7
	Table 4. Historic population and population projections to 2030 for Atkinson	10
	Table 5. Indicators of sustainability	11
	Table 6. Summary of sustainable principles and practices	13
 <b>Figures</b>		
	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)]	4

**MASTER PLAN**  
**DRAFT CHAPTER: ENERGY EFFICIENCY AND SUSTAINABLE DEVELOPMENT**  
**Town of Atkinson, New Hampshire**

**1.0 INTRODUCTION**

**1.1 Purpose**

The purpose of this Chapter is to provide guidance and tools, identify strategies and actions, and provide a vision for achieving energy efficiency and conservation, and sustainable growth and development in Atkinson. The interconnected relationship between rising costs of energy and the environmental and economic implications of climate change have raised serious concerns about what communities can do to protect their future interests. Reduction in energy consumption provides both economic and societal benefits including reduced energy costs, reduced greenhouse gas emissions and improved air quality. Energy efficiency and conservation strategies should target all municipal and private facilities, infrastructure and systems that use energy such as buildings, homes, transportation, lighting, water, waste management, emergency services, public spaces and recreation.

Ultimately, implementation of sustainable development practices can help provide a balance between environmental protection, economic benefits, and equity in the community. This can be achieved by removing obstacles from planning and regulation, creating opportunities for energy efficiency, renewable energy generation, and permitting compact land use patterns.

**1.2 What is Energy Efficiency and Conservation**

Energy efficiency and conservation focuses on one main objective - reducing overall energy consumption across all sectors thus reducing energy costs and environmental pollutants. Communities can achieve reductions in energy consumption by addressing the following:

- Efficiency for both existing and new buildings
- Community awareness and participation
- Transportation systems, choices and alternatives
- Access to clean fuel choices
- Street and outdoor lighting
- Recycling, composting and reuse programs
- Consumerism of local products and services
- School and classroom education programs

### 1.3 Rationale for Energy Efficiency and Conservation

#### ***Cost and Efficiency***

Statewide trends in energy consumption, translated to the regional level, reveal that the average resident in New Hampshire consumes 9% more energy in 2004 than they did in 1990. From 1990 to 2004, the major economic sectors experienced growth: commercial by 74%, transportation by 50%, and residential by 26%. However, in 2004, the residential sector was the second largest energy consumer exceeded only slightly by the transportation sector. Petroleum was by far the highest consumptive fuel source across all sectors, followed by nuclear power, an electric power fuel source.

Alterations to our climate could result in adaptive changes or decline in certain sectors of the regional economy, including winter tourism, agriculture, maple syrup production, coastal real estate values (due to sea level rise and increase in storm intensity), and health costs associated with respiratory health and heat related illnesses.

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

The infrastructure for energy use and delivery can influence land use decisions about where growth occurs and where we live, work and play. NH State law encourages energy efficient patterns of development through zoning that does not unreasonably limit development of alternative and renewable sources of energy. Reductions in energy consumption can also be achieved through implementation of conservation measures, smart growth, and development of alternative transportation systems. These concepts are described in the table below.

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

<b>Conservation Measures</b>	<ul style="list-style-type: none"> <li>▪ Energy efficiency in buildings, fixtures and infrastructure</li> <li>▪ Behavioral changes including trip consolidation, ride sharing, reduction in lighting and appliance use, efficiency in equipment and other purchases</li> </ul>
<b>Smart Growth</b>	<p>Principles</p> <ul style="list-style-type: none"> <li>▪ Incorporate a mix of uses to provide a variety of housing, employment, shopping, services, and social opportunities for all members of the community.</li> <li>▪ Preserve working landscape by sustaining farm and forest land and other rural resource lands to maintain contiguous tracts of open land and to minimize land use conflicts.</li> <li>▪ Provide choices and safety in transportation to create livable, walkable communities that increase accessibility for people of all ages, whether on foot, bicycle, or in motor vehicles.</li> <li>▪ Protect environmental quality by minimizing impacts from human activities and planning for and maintaining natural areas that contribute to the health and quality of life of communities.</li> <li>▪ Involve the community in planning and implementation to ensure</li> </ul>

	<p>that development retains and enhances the sense of place, traditions, goals, and values of the community.</p> <ul style="list-style-type: none"> <li>▪ Manage growth respecting the local community tradition, but work with neighboring towns to achieve common goals and address common problems more effectively.</li> </ul>
<p><b>Alternative Transportation</b></p>	<ul style="list-style-type: none"> <li>▪ Public transit including buses, vanpools, rideshare programs, and park and ride facilities</li> <li>▪ Accommodations for bicycles and pedestrians</li> <li>▪ Promote and participate in regional collaboration to improve transit system.</li> </ul>

***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.

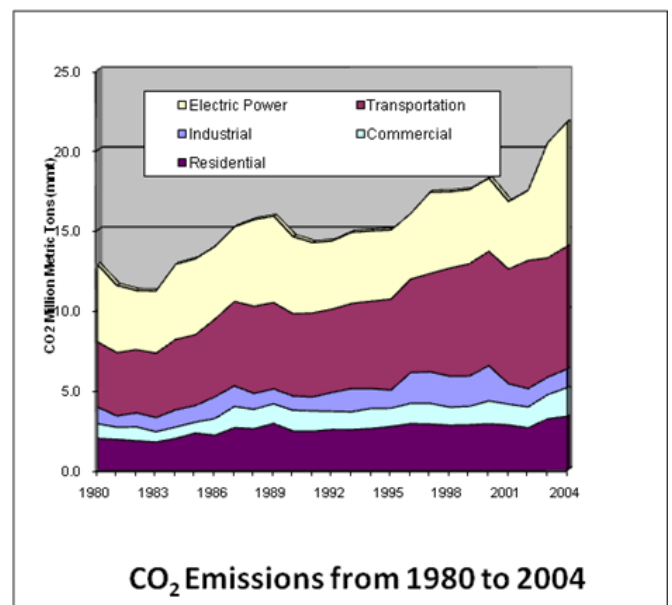
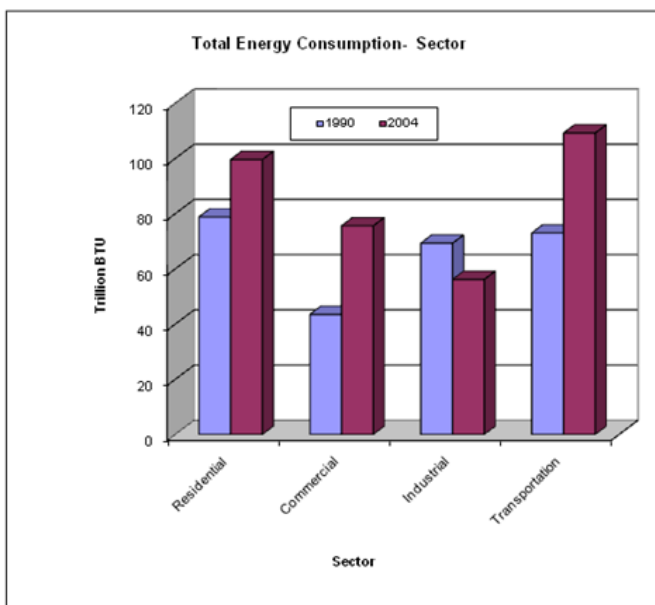
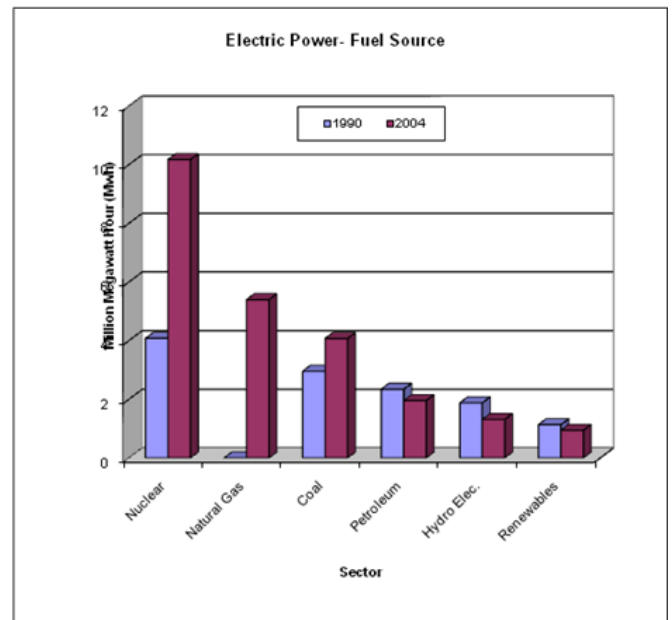
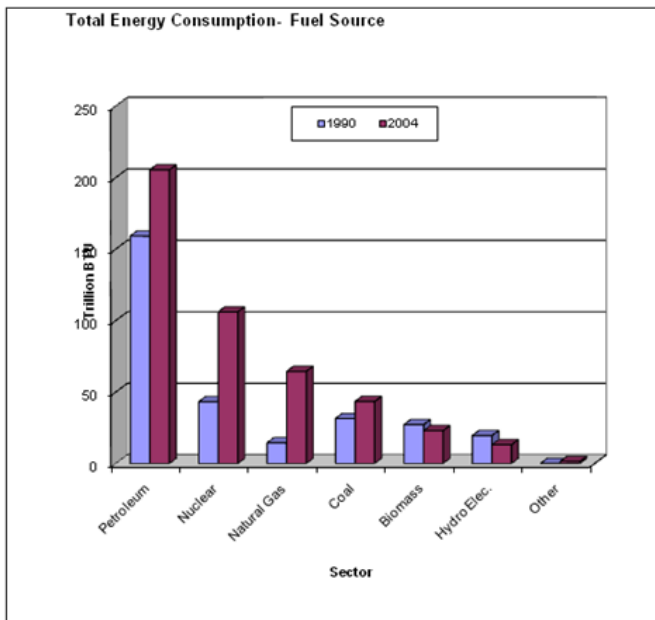
***Greenhouse Gas Emissions Reductions***

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.

**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 ATKINSON ENERGY COMMITTEE

### 2.1 Introduction to NH Local Energy Committees

In 2008, Atkinson was one of 163 municipalities that passed the New Hampshire Climate Change Resolution that calls on the federal government to prioritize climate change policy and enables the formation of a local energy committee (LEC) to address energy efficiency and conservation, emission reductions, and other energy related issues. The generation and use of energy and emissions from energy use - whether for our homes, businesses, transportation or recreation - has a very significant impact on our environment, and the health and welfare of the community. Local energy committees are an important way to help inform decisions makers and residents about how to advance cost-effective strategies that save energy, reduce costs and help protect the environment. Through new initiatives and strong policies, the community with assistance from the LEC can move toward a more sustainable and clean energy future.

### 2.2 Mission Statement and Role

#### **Mission Statement**

*The mission of the Atkinson Energy Committee (AEC) is to promote energy conservation, energy efficiency, and explore other ways to reduce carbon emissions among the town's residents, businesses, and municipal operations, thus reducing energy expenditures for residents and taxpayers, while improving the quality of living in our community.*

#### **Roles**

The role of the Atkinson Energy Committee is to:





- advise the Planning Board on regulatory and planning strategies relating to energy efficiency and conservation;
- coordinate with boards, commissions, schools and other organizations to promote and implement voluntary energy efficiency and conservation measures in the community;
- report to the Board of Selectmen on energy usage for municipal facilities on an annual basis and as requested; and
- provide information to the Board of Selectmen about strategies and improvements to increase the energy efficiency of municipal facilities.

The Atkinson Energy Committee meets monthly or every other month depending upon availability of members and need. The meetings are noticed at Town Hall and open to the public. There is typically an agenda developed for each meeting to guide discussion and inform the public of the activities of the Committee. The Committee keeps minutes of their meetings, which are available on the AEC's web blog at <http://atkinsonsavesenergy.blogspot.com> and at the Board of Selectmen's Office at Town Hall.

### 2.3 Goals of the Atkinson Energy Committee

The Atkinson Energy Committee has identified the following general short term and long term goals relating to energy efficiency, use and conservation.

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

General Goals	Short Term Goals (1 year)	Long Term Goals (2or more years)
<p><b><i>Reduce overall energy use, conservation, and emissions throughout the community</i></b></p> 	<ul style="list-style-type: none"> <li>▪ Complete an energy inventory for municipal buildings and infrastructure and report findings to the Board of Selectmen</li> <li>▪ Audit buildings with highest *<i>EUI</i> and identify potential municipal building energy improvement project(s)</li> <li>▪ Evaluate and reduce municipal street lighting costs</li> <li>▪ Encourage community participation in the NH Carbon Challenge</li> </ul>	<ul style="list-style-type: none"> <li>▪ Complete an evaluation of energy use and savings resulting from improvements to municipal buildings and infrastructure</li> <li>▪ Establish budget/funding process for municipal projects</li> <li>▪ Identify outside funding sources for energy efficiency projects</li> <li>▪ Complete an evaluation of energy use and savings resulting from improvements to street lighting</li> </ul>
<p><b><i>Provide outreach and raise awareness in the community about energy use, conservation and emissions</i></b></p> 	<ul style="list-style-type: none"> <li>▪ Conduct an annual Energy Fair</li> <li>▪ Develop speaker series in conjunction with library</li> <li>▪ Develop graphic reporting community progress</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce residential and commercial energy use, conservation, and emissions</li> <li>▪ Develop energy project partnerships with schools</li> </ul>
<p><b><i>Annual Energy Use Reduction Progress Report</i></b></p> 	<ul style="list-style-type: none"> <li>▪ Complete an annual evaluation of energy use and savings resulting from improvements</li> </ul>	<ul style="list-style-type: none"> <li>▪ Complete an evaluation of energy use and savings resulting from improvements in the community, as a whole</li> </ul>
<p><b><i>Increase community participation on the AEC</i></b></p> 	<ul style="list-style-type: none"> <li>▪ Increase AEC membership</li> <li>▪ Develop partnerships with area energy companies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Conduct ongoing outreach to residents regarding AEC activities and events</li> </ul>

EUI = Energy Use Intensity expressed in KBTU's per square foot of building space; KBTU = thousand British Thermal Units



## 2.4 Energy Inventory and Audits

### Municipal Inventory

IN 2009, the Atkinson Energy Committee completed an energy inventory which included data on energy use and energy costs for all municipal buildings (see details below) as well as municipal street lighting and vehicle fleet. The town has 9 vehicles used by the Fire Department and 8 vehicles used by the Police Department. The town has 195 street lights.

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

<b>Municipal Building</b>	<b>Date Constructed</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
Town Highway Dept. garage	1999	2,970
Town Hall	1987	6,600
Kimball House	1800's	3,304
Kimball Library	2008	
<b>Total square footage</b>	--	

## 2.5 Atkinson Energy Committee Partners

The Atkinson Energy Committee has identified the following energy partners in the town:

- Timberlane Regional High School and Timberlane Regional Middle School
- Atkinson Academy
- Atkinson Library
- Unital
- Waste Management
- Area Communities

The Atkinson Energy Committee has gained support from the following:

- Board of Selectmen
- Planning Board
- Conservation Commission

The Atkinson Energy Committee hopes to partner in the future with energy industry professionals to provide information and outreach on energy issues for the community, including: energy providers, builders, architects, manufacturers, researchers, and state and federal agencies, and nonprofit organizations.

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

The Atkinson Energy Committee has identified the following issues relating to energy consumption and use in the community.

Issue 1: Increased commute to work distances for many residents resulting in high vehicle miles travelled per person or household

Issue 2: Lack of public transportation and alternative transportation options

Issue 3: Balance high standard of living and median income with societal and environmental benefit of energy conservation

Issue 4: Low participation in recycling and composting throughout the community

## **2.7 Atkinson Energy Committee Findings**

The Atkinson Energy Committee has identified the following findings relating to energy efficiency, use and conservation.

1. Town buildings could benefit from general weatherization and, in some cases, improvements to heating and cooling systems.
2. The Town has a manual system for tracking of energy usage and costs for municipal facilities.
3. The Town currently has no policy, regulatory measures or voluntary incentives, beyond the minimum state standards, to ensure energy efficiency for new and existing private and municipal construction.
4. The Town does not include in the Capital Improvement Plan (CIP) funds for implementation of energy efficiency and conservation measures, including improvements to municipal buildings and infrastructure or to purchase energy efficient equipment and vehicles.
5. Most residents and business owners are not aware of initiatives, events and opportunities to learn about and implement energy efficiency and conservation measures in their home and at their businesses.
6. Community members are not allowed to “repurpose” items dropped off at the recycling/transfer station. (Many communities allow residents to take reusable items that are dropped off at the transfer stations for their own personal use.)
7. The town does not have a subdivision and site review process to assist in the integration of energy saving measures into the building process.

## 3.0 HOW TO DEVELOP AND GROW WITH EFFICIENCY

### 3.1 Opportunities for Implementation

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

##### *Zoning and Ordinances*

Many communities are leading by example by adopting innovative zoning and ordinances that promote energy efficiency and sustainable development such as:

- Alternative energy systems (solar, geothermal, wind)
- Mixed use development
- Minimum performance-based building standards
- Conservation subdivisions (60 percent and greater open space)
- Open space and agricultural zones (land preservation and low density)

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

Subdivision and site plan review regulations can require specific site design elements that achieve energy efficiency and conservation at the site and lot level. Such elements include:

- Maximize benefits of solar heating through building orientation and window placement
- Orient buildings to reduce wind loads
- Maximize benefits of passive cooling with landscaping to provide shading and wind breaks
- Use of native and drought tolerant species to reduce resource demand for maintenance

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

Voluntary incentives can be incorporated into development requirements including subdivision and site plan review regulations. Examples include:

- Density bonuses for subdivisions that incorporate renewable energy and energy efficient design and infrastructure
- Zoning that permits renewable energy systems through an expedited review process and adherence to certain site design standards
- Tax credits for installation of renewable energy and energy efficient design and infrastructure
- Maximize benefits of solar heating through building orientation and window placement
- Orient buildings to reduce wind loads
- Maximize benefits of passive cooling with landscaping to provide shading and wind breaks
- Use of native and drought tolerant species to reduce resource demand for maintenance

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

Reuse of the built environment helps renew and maintain vibrant communities by generating new economic opportunities, while preserving resources and open space. Restoring idled or abandoned or underutilized property to productive uses that provide services, jobs and housing (including supportive language for accessory apartment structures to meet the requirements of workforce housing) in the community can increase land values and property tax revenues and improve quality of life.

**Energy Efficiency in New Construction**

Sustainable practices are aimed at guiding how new development is constructed to attain energy efficiency and conservation, and to promote use of sustainable materials and energy.

- Performance based standards and building codes will ensure that all new buildings are constructed to a minimum efficiency level, for example using LEED standards or EPA Energy Star standards.
- Construction standards can ensure energy efficiency, use of products that provide long term durability, and use of sustainable and recycled materials (including salvaged, refurbished or reused materials).
- Site design techniques that take advantage of sun exposure, differences in microclimate, and landscaping reduce a development’s energy demand and overall energy consumption.

Energy efficient planning principles and provisions to allow for renewable energy generation should be implemented through subdivision and site plan review regulations, zoning ordinances and building codes.

**Transportation, Land Use and Environmental Planning**

In order to achieve energy efficiency and sustainable growth and development, Atkinson will need to integrate its long-term transportation, land use and environmental planning initiatives. This may include an audit of existing zoning, ordinances and regulations to determine whether the goals of this chapter are being implemented adequately and consistently across transportation, land use and environmental planning. In addition, the town’s ongoing participation in the Rockingham Planning Commission’s Metropolitan Planning Organization (MPO) will be essential to meeting the future transportation and transit needs of the community.

**3.2 Community Energy Needs for the Future**

The NH Office of Energy and Planning (NHOEP) estimates that the population of Atkinson to increase by 20 percent to 7,790 residents by 2030.

**Table 4. Historic population and population projections to 2030 for Atkinson.**

US Census Data		NHOEP (estimated)	NHOEP (projections)				
1990	2000	2007	2010	2015	2020	2025	2030
5,188	6,178	6,468	6,800	7,090	7,330	7,570	7,790

With an estimated population increase of 20 percent by 2030, Atkinson would benefit from an evaluation of community energy needs for the future. This may include analysis of existing growth and development patterns, build-out scenarios under current zoning (provided by the Rockingham Planning Commission), and current energy supply sources. Atkinson may also consider what its role will be in addressing the goals of the New Hampshire Climate Action Plan, and whether the town will adopt a commitment to achieving these goals. Atkinson would benefit from a review of existing zoning and planning procedures aimed at eliminating regulatory roadblocks to renewable energy installations within the town.

## 4.0 SUSTAINABLE GROWTH AND DEVELOPMENT

### 4.1 What Is Sustainability?

Sustainability is the ability to provide for present needs without damaging the ability of future generations to provide for themselves. The primary philosophy of sustainable growth and development is that new development and redevelopment can be done in such a way that they provide environmental, economic, and quality of life benefits to all members of the community. Without proper attention to the effects of unmanaged growth, communities are at risk of exhausting their environment of what makes them unique and desirable places to live, work and visit.

There are several indicators of “sustainability” and *a sustainable community is one that is consistent with all of these*. Indicators of sustainability are summarized in the table below.

**Table 5. Indicators of sustainability.**

Sector	<i>Indicators of Sustainability</i>
<b>Environment</b>	Conservation Development Water Resource Protection Sustainable and Natural Landscapes Community Character Historic Preservation Green Infrastructure
<b>Economy</b>	Energy Efficiency and Conservation Renewable and Alternative Energy Recycling and Reuse of Materials Livable Communities Green Building
<b>Equity</b>	Housing Choices Transportation and Mobility Access/Options Open Space, Parks and Recreation

### 4.2 Rationale for Sustainable Development

The built environment has a profound impact on our natural environment, economy, health and productivity. Sustainable development is a pattern of resource use that aims to meet the needs of the community today and protect its needs of the future, while preserving the environment. Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges facing individuals and communities. Communities can achieve sustainable development by integrating land use and resource based strategies with economic development approaches that benefit the local environment and quality of life.

In the United States, buildings alone account for:

- 72% of electricity consumption
- 39% of energy use
- 14% of potable water consumption
- 38% of total carbon dioxide (CO<sub>2</sub>) emissions
- 40% of raw materials use
- 30% of waste output (136 million tons annually)

Sustainable development provides a framework under which communities can use resources efficiently, create efficient infrastructures, protect and enhance quality of life, and create new businesses to strengthen their economies. Fostering sustainable approaches to community development helps strengthen the capacity of communities to take integrated action toward improving environmental, social, and economic conditions.

### **4.3 Planning For Sustainable Growth and Development**

Planning for sustainability promotes responsible development and includes the following processes, practices, and outcomes.<sup>1</sup>

#### Planning Processes

- Making planning decisions in a holistic and fully-informed manner that involves all segments of the community and the public and private sectors.
- Educating all age groups to raise public understanding of and regard for the future consequences of past and current planning decisions and ultimately change human behavior.

#### Planning Practices

- Developing a future-oriented vision, looking beyond current needs and recognizes environmental limits to human development.
- Advancing projects and activities that promote economic development that: efficiently and equitably distribute resources, services and goods; minimize, reuse and recycle waste; and protect natural resources.
- Foster a widely accepted ethic of stewardship that strongly encourages individuals and organizations to take full responsibility for the economic, environmental, and social consequences of actions, and balances individual needs with environment and public welfare.
- Take leadership in implementation of local, regional and state policies and engage in inter-municipal and regional initiatives that support sustainability.

#### Planning Outcomes

- Local and regional development patterns that expand choice and opportunity for all persons.
- Resilient, diverse, and self-sufficient local economies that meet the needs of residents and build on the unique characteristics of the community whenever possible.

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<sup>1</sup> American Planning Association, *Policy Guide on Planning and Sustainability* (2000)

- Communities with a healthy environment and social climate that function in balance with natural ecosystems and allow individuals to lead healthy, productive and enjoyable lives.

#### 4.4 Sustainable Development Principles and Practices

##### *Sustainable Principles*

Sustainable development principles cut across all dimensions of sustainability: environmental, economic and societal.

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

<b>Principles</b>	<b>Sectors</b>	<b>Practices</b>
Efficient use and production of alternative energy	<b>WATER</b>	<i>Indoor</i> Water Conservation Water Efficient Appliances and Fixtures Water Budget
Efficient use of water and other water resources		<i>Outdoor</i> Pervious Materials Xeriscape Greywater Irrigation Harvested Rainwater
Protect quality of the air, water, land and other natural resources		
Reduce waste, pollution and environmental degradation	<b>ENERGY</b>	<i>Construction</i> Passive Solar Design Solar Hot Water, Heating and Cooling Systems Photovoltaic Systems Programmable Thermostats
Protect human health and safety		<i>Outdoor</i> Energy Efficient Lighting and Landscaping
Minimize impacts on local and worldwide ecosystems	<b>BUILDING MATERIALS</b>	Reduce, Reuse, Recycle Purchase local and regional materials
	<b>SOLID WASTE</b>	Recycling and Compost Systems Construction Waste Recycling

Many communities have discovered that traditional approaches to planning and development are creating, rather than solving, societal and environmental problems. Where traditional approaches can lead to congestion, sprawl, pollution and resource overconsumption, sustainable development offers real, lasting solutions that will strengthen communities in the future.



## ***Sustainable Practices***

Sustainable practices are aimed at guiding how new development is constructed to attain energy efficiency and conservation, and to promote use of sustainable materials and energy.

- Performance based standards and building codes will ensure that all new buildings are constructed to a minimum efficiency level, for example using LEED standards or EPA Energy Star standards.
- Construction standards can ensure energy efficiency, use of products that provide long term durability, and use of sustainable and recycled materials (including salvaged, refurbished or reused materials).
- Site design techniques that take advantage of sun exposure, differences in microclimate, and landscaping reduce a development's energy demand and overall energy consumption.
- Energy efficient planning principles and provisions to allow for renewable energy generation can be implemented through subdivision and site plan review regulations, zoning ordinances and building codes.
- Incentives in the form of tax credits, deferments, deductions or abatements can help lessen the initial cost burden of investing in energy efficient systems.
- Incentives to redevelop brownfields and abandoned sites, and develop infill projects on underutilized sites.

## ***Energy Conservation and Renewable Energy***

Energy is central to sustainable development efforts. It affects all aspects of development -- social, economic, and environmental -- including livelihoods, access to water, agricultural productivity, health, population levels, and education. Energy efficient design and planning techniques can be used in constructing housing and non-residential developments, prescribing density limits, integrating land uses, and designing transportation systems and infrastructure.

## ***Environment***

Ecologists recognize that there may be limits to sustainable growth and offer the alternative of a "steady state economy" in order to address environmental concerns such as resource consumption, energy production, and land conservation.

## ***Building Efficiency***

Green building practices offer an opportunity to create environmentally-sound and resource-efficient buildings by using an integrated approach to design and efficiency. Green buildings promote resource conservation, including energy efficiency, renewable energy, and water conservation features; consider environmental impacts and waste minimization; create a healthy and comfortable environment; reduce operation and maintenance costs; and address issues such as historical preservation, access to public transportation and other community infrastructure systems. The entire life-cycle of a building and its components is considered, as well as the economic and environmental impact and performance.

## 5.0 RECOMMENDATIONS

The goals of the following recommendations are to achieve energy efficiency and conservation, and foster sustainable growth in the community.

1. Municipal Building Standards. Newly constructed, renovated or expanded municipal facilities must meet energy efficiency standards. For example, U.S. Green Building Council, Leadership in Energy and Environmental Design (LEED) building rating system, standards similar to the Town of Epping Energy Efficiency and Sustainable Design zoning ordinance, or other building performance based system.
2. Minimum Thresholds for Private Development. Implement energy efficiency standards for residential and non-residential development. For example, U.S. Green Building Council, Leadership in Energy and Environmental Design (LEED) building rating system, standards similar to the Town of Epping Energy Efficiency and Sustainable Design zoning ordinance, or other building performance based system.
3. Green Building Education. Develop local incentives for and provide outreach and information about implementation of renewable energy systems in the community.
4. Pedestrian and Bicycle Use. Develop a planning policy to make Atkinson a “walkable and bikeable” community by establishing neighborhood connectivity and pedestrian and bicycle accommodations.
5. Open Space Access. Develop a policy and local incentives to encourage preservation of open space and public access to open space to promote alternative transportation and multiple users.
6. Community Energy Policy. Develop an energy policy and long-range plan for the Town of Atkinson. The Plan should incorporate budgetary provisions on the town’s Community Improvement Plan (CIP) and be consistent with the goals of the Master Plan.
7. Transportation. Continue participation in the Rockingham Planning Commission’s Metropolitan Planning Organization (MPO).
8. Community Outreach and Education. Provide opportunities for residents and business owners to learn about energy efficiency and conservation measures.

## 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.*