
Chapter 7: Energy

Introduction

By historic standards, access to energy for electricity, heating and transportation today is so ubiquitous and relatively inexpensive that it is sometimes be hard to understand there is an urgent need to improve the efficiency of our energy use and modernize energy production. We enjoy unprecedented living comforts, thanks to current energy practices. But we also face tough economic challenges and stark environmental needs related to energy that can be addressed with smart, proactive efforts.

The production and consumption of energy has received increasing attention in recent years because the fossil fuels—coal, gas and petroleum—that we burn to heat our homes, move our vehicles, power our electronics and more are increasingly costly. World-wide demand for energy continues to increase, and we rely more on energy-powered technologies to meet our daily needs. Because nearly all the fuels that we currently depend on to produce energy are non-renewable, the growing competition for these limited natural resources is a source of political and economic instability. Further, the greenhouse gas (GHG) pollution emitted by the burning of fossil fuels for energy production is a great concern, as it is linked to climate change and associated extreme, damaging weather events.

This chapter describes how Southampton can take action address energy-related issues in the coming years by promoting energy efficiency and clean energy production. The Town has already begun to tackle this issue on several fronts: through the work of the Energy Committee; the actions of municipal boards to improve energy efficiency; the engagement of the Department of Public Works on efforts to reduce waste, increase recycling and improve energy efficiency at town-owned facilities; and various efforts of other town committees and staff, who are working create opportunities for all residents to increase their home energy efficiency and have more options for purchasing clean energy. Importantly, the Town in 2010 engaged an energy service company (ESCO) to complete a preliminary energy audit performance contract to identify opportunities to reduce municipal energy use, as well as a proposal to site a solar photovoltaic (PV) installation on the roof of the new Town Hall.

Municipal Energy Background Information

The Southampton Energy Committee was formed in February 2009 as part of a regional Memorandum of Agreement created through the Pioneer Valley Clean Energy Plan, which set out goals for Hampden, Hampshire and Franklin counties on energy efficiency and renewable energy production. The four goals identified for Western Massachusetts in the PVPC Clean Energy Plan are:

1. Reduce energy consumption by 15% below 2000 levels by 2020 through energy conservation and efficiency.
2. Replace the energy used from non-renewable fossil fuels with "clean" renewable energy sources such as solar, wind and geothermal.
3. Reduce greenhouse gas emissions.
4. Create local jobs in the clean energy sector.

Additional regional plans that address energy issues include the Pioneer Valley Plan for Progress (economic strategies for the region), the 2012 Regional Transportation Plan for the Pioneer Valley Metropolitan Planning Organization, and the 2006 Bicycle and Pedestrian Plan for the Pioneer Valley Metropolitan Planning Organization. All regional plans can be viewed at www.pvpc.org.

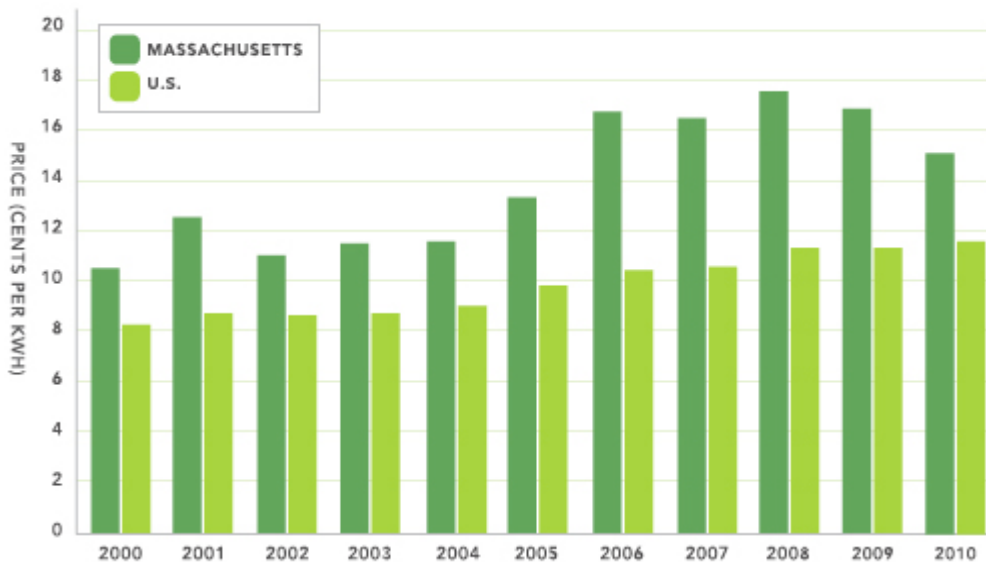
The Energy Committee has worked to identify local initiatives that will help Southampton and its residents move toward greater awareness and action toward these regional clean energy goals. Most notably, the committee participated in a regional procurement to hire an ESCo to assess and identify energy efficiency and conservation measures for Town buildings. In 2010, the ESCo completed a preliminary energy audit of Town facilities, including the Elementary School, Fire Department, Town Hall, Police Department, Library and Highway Garage. In the future, the Town may follow up with an investment grade audit (IGA), which is a more in-depth assessment that may be used to underwrite financing the infrastructure recommendations included in the report through the energy savings projected to be generated from said infrastructure.

7.1 Data & Trends

7.1.1 Economic Impacts

While Massachusetts is a leading state in energy efficiency, we face some of the highest energy prices in the country. The U.S. Energy Information Administration (EIA) estimates that in 2010, Massachusetts had the seventh highest Total Electricity Price in the nation. These higher prices affect residents through their monthly utility bills; they also increase the cost of doing business for energy-intensive industries, such as manufacturing and computing, which tend to create well-paying jobs.

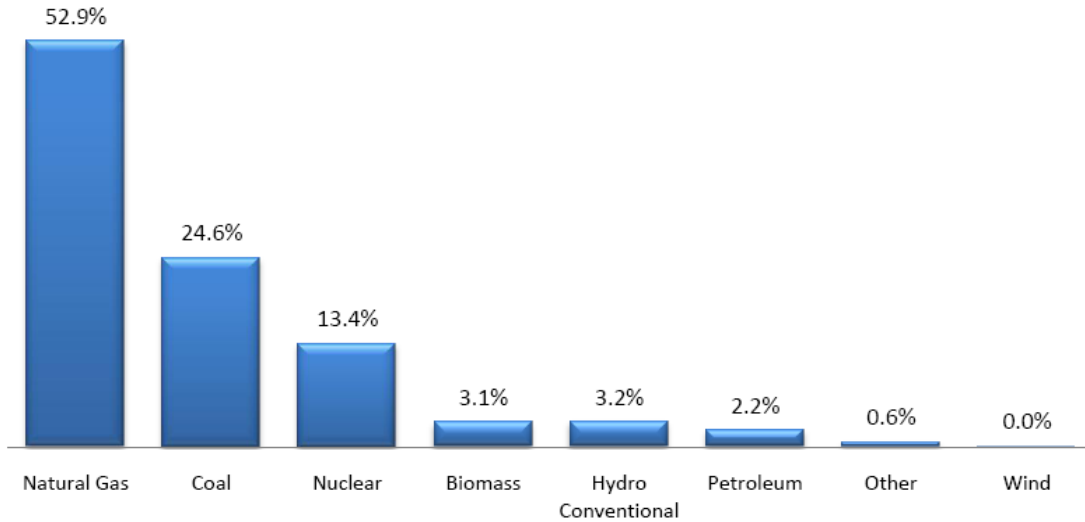
Figure 7-1: Price per kWh of Electricity in Massachusetts vs. National Average



Source: US Energy Information Administration

The current local portfolio of energy sources does not seem to hold much promise in this category either. The U.S. EIA projects that the cost of natural gas –the dominant fuel source for electricity production in the state – will rise in coming years. For residential use, the national average in 2011 was \$10.79 per thousand cubic feet and is expected to rise to \$11.13 per thousand cubic feet in 2013. The town’s annual natural gas bill was \$74,092 in FY2011 (most recent year available).

Figure 7-2: Sources of Fuel for Electricity Generation in Massachusetts



Source: Massachusetts Department of Energy Resources
 Totals may not add to 100% due to rounding and incomplete reporting of very small sources

Therefore, the anticipated 3.2% increase in natural gas prices would be an increase of \$2,335 per year, assuming the same rate of natural gas use. The U.S. EIA estimates the price of residential natural gas will rise 0.9% annually through 2035.

Transportation costs are also expected to remain high. Oil prices have been exceptionally volatile during the past several years, reaching a high of \$145 in July 2008 and as low as \$30 a barrel in December 2008. Based on projections to 2035, average oil prices could rise to as high as \$95 per barrel in 2015 (real 2009 dollars), increasing to \$125 per barrel in 2035. Oil price volatility affects Southampton homeowners who heat with oil. The average annual home heating oil bill for a Massachusetts household was \$2,475 in 2010; the size and energy efficiency of individual homes determines the cost to each household.

Massachusetts produces almost none of the energy it consumes. Therefore, the vast majority of the dollars spent on energy by Southampton residents and businesses are effectively exported to other states and countries, which provides little benefit to the local economy.

7.1.2 Environmental Impacts

Energy use has environmental impacts that directly affect Southampton. Electric power plants generate energy, but they also generate air pollutants that contribute to poor air quality, including particulate matter, and ozone. Even those plants that are located at a distance from our communities

can contribute to an accumulation of pollutants in our region. Fuel combustion for winter heating also has a large local effect, as boilers from buildings add pollutants that can linger in the local atmosphere.

With respect to air quality, the Town is located on the Hampshire County border with Hampden County, two of six Massachusetts counties that received an air quality grade of “F” by the American Lung Association (State of the Air Massachusetts Report Card 2012). The amount of high ozone days in the region exposes thousands of children, elderly, and residents with respiratory illness to significant health risks.

Additionally, the scientific consensus demonstrates that a surge in greenhouse gas emissions, attributable in great part to emissions generated by fossil fuel sources—such as oil, coal and natural gas—has increased global average temperatures over the past century. Other activities such as burning fossil fuels for transportation, industrial processes, land use patterns, deforestation, agriculture, and generation of waste also contribute to greenhouse gas emissions, producing greater variability, unpredictability and dangerous weather conditions we are not accustomed to, such as record heat days, tornados, tropical storm Irene and even out of season winter storms.

By cutting Southampton’s use of fossil fuels and transitioning to more renewable energy sources we can improve our air quality and avoid negative health impacts, while cutting greenhouse gas emissions which threaten the community’s social, economic, and environmental resiliency.

7.1.3 Energy Consumption: Municipal Buildings and Infrastructure

The majority Southampton’s electricity for buildings and infrastructure (about 95%) is purchased through the Hampshire Council of Governments municipal purchase program, with the remaining amount purchased from the Western Massachusetts Electric Company (WMECO). Electric service to private residential and commercial buildings in Town is by WMECO.

Table 7-1: Southampton Building and Infrastructure Electricity Consumption (kWh)

Sector	2009	2010	2011
Residential	20,002,449	21,943,342	21,759,995
Commercial	7,854,437	7,670,037	8,357,254
Municipal	880,212	920,897	997,535
Industrial	568,378	550,066	504,889
Streetlight	85,079	76,603	76,650
Total	29,390,555	31,160,945	31,696,323
Source: Mass Energy Insight, WMECO			

Southampton ranks 22nd in electricity consumption among the 43 towns and cities in Hampshire and Hampden Counties, using approximately 31.7 million kWh per year. About two-thirds of this consumption goes to the residential sector and slightly less than one-third goes to commercial and municipal buildings. Approximately 2% of energy consumed in Town is for industrial uses and street lights.

Portions of the Town receive natural gas service from a pipeline operated by the neighboring Holyoke Gas and Electric Company, as well as trucked deliveries of propane under contracts with individual fuel suppliers. All of the City's electricity and heating fuels are received from sources outside the Town.

Southampton owns and maintains eight municipal buildings, including one elementary school. The Town also has several street lights and a transfer station. The Town's energy use in 2011, the latest calendar year with 12 months of data, is summarized in Table 2 below.

Table 7-2: Total Energy Usage in Southampton Facilities FY2011

Facility	Electric (kWh)	Gas (therms)	Total Energy (MMBTU)	% of all Energy
W. Norris El. School	374,829	36,537	5,035	65.0%
Shared Bldg accounts (Water facilities at Pequot Rd and Wolcott Rd, Conant Park)	256,531	0	875	11.3%
Town Hall	81,316	3,045	590	7.6%
Larabee Building	95,423	0	326	4.2%
Edwards Library	27,143	2,186	317	4.1%
Street Lights	76,533	0	261	3.4%
Fire Station	463	1,802	187	2.4%
Highway Garage	17,155	0	59	0.8%
Fire Station, Rt. 10	11,310	0	39	0.5%
Water Dept	10,036	0	34	0.4%
Transfer Station	6,534	0	22	0.3%
Old School Museum	1,764	0	6	0.1%
Total	959,037	43,570	7,751	100.0%

Source: Mass Energy Insight FY2011 (accessed 10/1/12)

Total energy use is expressed in millions of British Thermal Units (MMBTU) in order to have an energy measurement common to both electricity and heating fuels.¹ The largest user by far is the William Norris Elementary School, accounting for two thirds of the municipal energy use amongst all facilities.

Municipal facilities use energy per square foot of space. The buildings identified on the upper right quadrant represent large buildings that also use a lot of energy, thereby presenting many opportunities to identify retrofit opportunities and save energy and money. This data can be used for a more precise energy reduction plan that may be implemented over a series of years. This will support the efforts that have already been initiated by the Southampton Energy Committee.

¹ Total electricity usage for municipal facilities in Table 1 and Table 2 differs by 64 kWh due to measurement error.

7.1.4 Energy Consumption: Municipal Vehicles

Southampton's municipal vehicles consumed a total of 39,722 gallons of gasoline and diesel fuel in 2012, for a total cost of approximately \$146,876.

Table 7-3: Town of Southampton Vehicle Fleet Inventory and Fuel Cost 2012*

Vehicle	Make	Model	Fuel Type
Highway Department			
Grader	CAT	130GMIL	Diesel
Loader,backhoe	John Deere	410J	Diesel
Loader	John Deere		Gas
Pickup	Ford	F350	Gas
Pickup	Chevrolet	3500	Diesel
Pickup	Ford	F350	Diesel
Truck	International	L8000	Diesel
Truck	International	7600	Diesel
Truck	International	7600	Diesel
Truck	Chevrolet	S10	Gas
Chipper	Badger		Gas
Truck	Ford	L8000	Gas
		FY2012 Fuel Cost:	\$93,423
Fire Department			
Pumper		2010	
Ambulance			
Other vehicles		Various	
		2012 Fuel Cost*:	\$13,312
Police Department			
6 vehicles	Various	Various	Gas
		2012 Fuel Cost*:	\$37,565
School Department			
1 van			Gas
		2012 Fuel Cost*:	\$2,576
Total Southampton Annual Fuel Cost:			\$146,876

Source: Southampton Highway Department

* Highway Department total July 1 2011 through June 30, 2012;

All other departments for the 1-year period Nov. 1, 2011 through Nov. 1, 2012

7.1.5 Clean Energy Production Potential

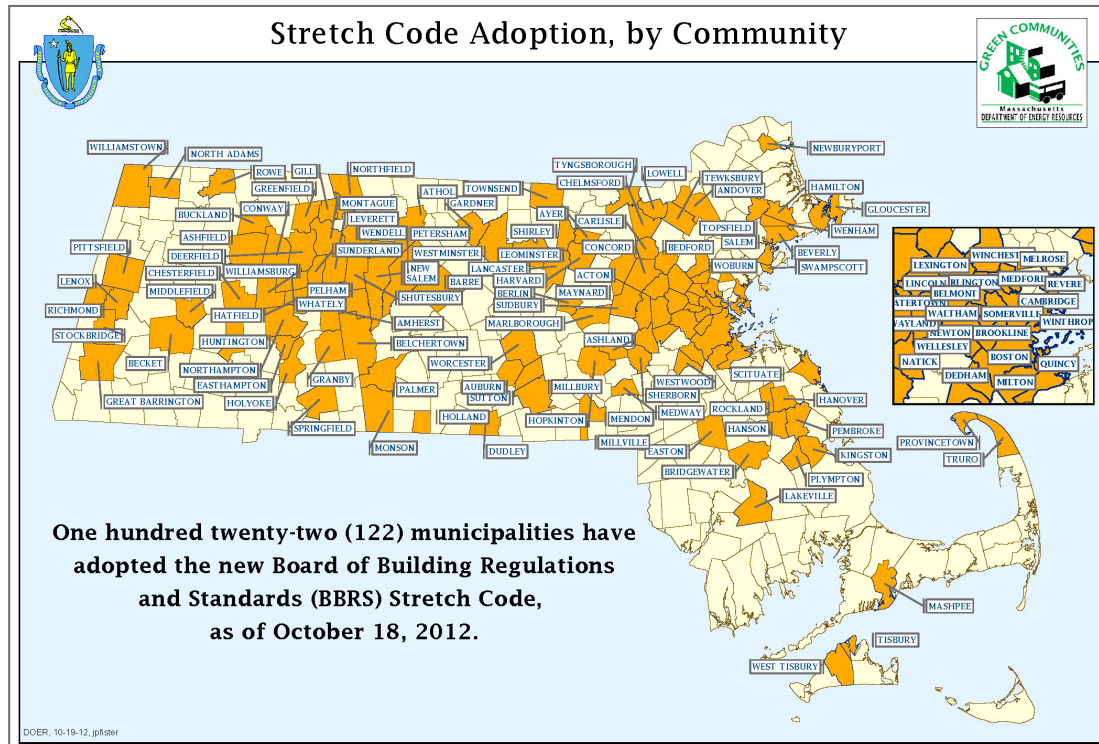
There are several opportunities in the Pioneer Valley, and Southampton in particular, to achieve greater energy efficiency and produce more renewable energy locally. This will help save money and preserve environmental resources.

Energy efficiency is the most cost-effective and cleanest step towards a cleaner energy system. Conservation is sometimes called the "first fuel" because it is cheaper to save energy than to generate it. Significant rebates and incentives for improving the energy efficiency of homes and businesses are available through the Commonwealth's MassSave programs through the Western Massachusetts Electric Company (www.masssave.com).

Improving Building Energy Efficiency: Stretch Building Code

A total 122 of Massachusetts' 351 municipalities have adopted the Stretch Building Code (see below). This code is an optional amendment to local building codes that achieves higher levels of energy efficiency by focusing on the energy performance of homes instead of prescribing all the measures that must be installed. These are efficiency amendments that will eventually be incorporated into the statewide building code for all municipalities; towns that adopt them now are "stretching" to meet these requirements ahead of schedule.

Figure 7-3: Massachusetts Stretch Code Adoption by Municipality



Pioneer Valley Municipalities with the Stretch Code: Amherst, Belchertown, Chesterfield, Easthampton, Granby, Hatfield, Holyoke, Huntington, Middlefield, Monson, Northampton, Palmer, Pelham, Springfield, and Williamsburg.

The Stretch Code increases the efficiency requirements for new residential and many new commercial buildings, as well as residential additions and renovations that trigger building code requirements. (Commercial remodeling and most retail projects less than 40,000 square feet are exempt.) The Stretch Code offers a streamlined and cost effective strategy for achieving approximately 20% better energy efficiency than is required by the base energy code. The Stretch Code provides increased energy savings, which accumulate to the owner over the life cycle of the building. The residential Stretch Code is based on the pre-existing Energy Star for Homes program developed by the U.S. EPA and Department of Energy, and customized for Massachusetts. This Energy Star program is in turn built upon the Home Energy Rating System (HERS).

Wind Power

Analysis of average regional wind speeds find there is slight potential for wind energy generation around a relative small area of Pomeroy Mountain. However, these areas are largely inaccessible by road. The majority of Town does not have sufficient average winds to support commercial wind power.

Residential-scale wind energy systems for supplemental power may be feasible in some areas of the town, depending on site-specific wind conditions.

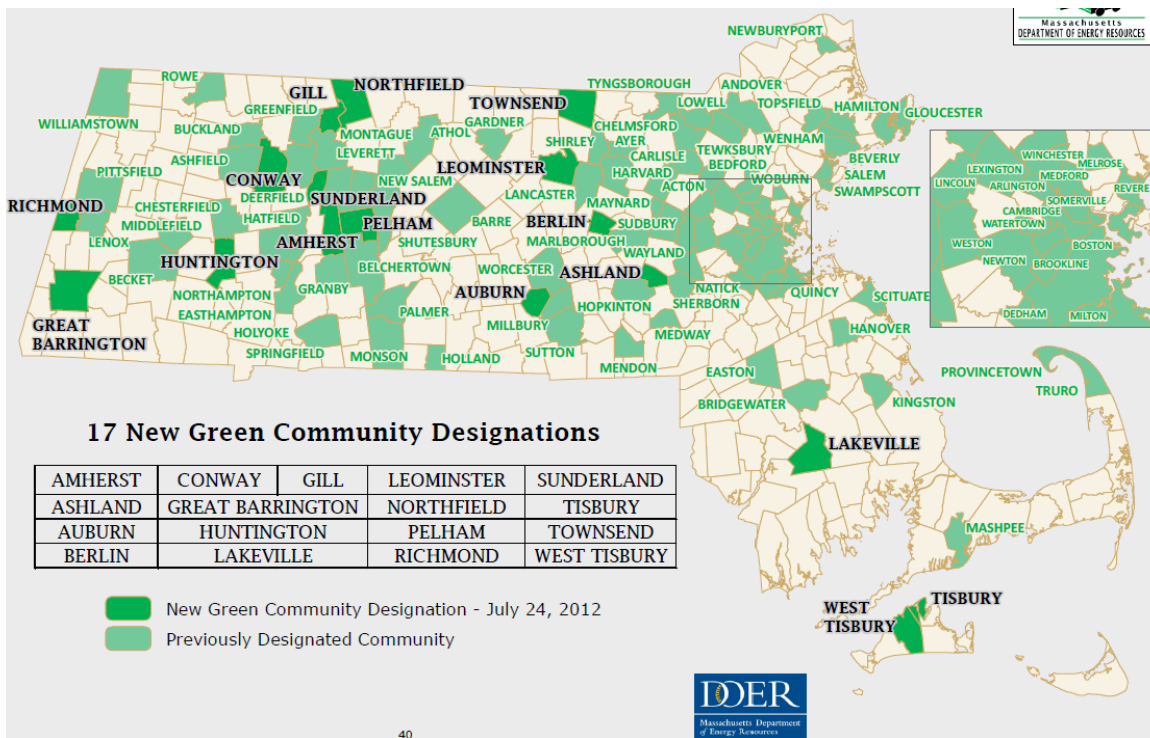
Solar Photovoltaic (PV)

The Town’s Energy Committee has expressed interest in evaluating a solar photovoltaic (PV) energy system at the closed Town landfill site. Depending on its size, such a system could allow the Town of Southamptton to contribute to meeting the regional goal of generating 615 million kilowatt hours of clean of new renewable energy per year by 2020 (Pioneer Valley Clean Energy Plan 2008). In addition, installation of solar PV panels on the roofs of residential buildings in Town could allow individual homeowners to contribute to this goal. New business models, such as purchase power agreements, offer options for solar PV installations without substantial upfront costs to homeowners.

Green Communities Program

The Massachusetts Green Communities Program also provides the potential for funding clean energy projects in Southamptton. If the Town were to adopt the Stretch Code, an energy reduction plan and provide as-of-right zoning for large solar energy systems, it would be eligible to receive at least \$135,000 in state funds. The Green Community designation also allows a municipality to compete for other grants and clean energy opportunities, such as the Solarize Mass program, which provide low-cost solar energy installations to residents.

Figure 7-4: Massachusetts Green Communities (as of July 2012)



Green Community Municipalities in the Pioneer Valley: Amherst, Belchertown, Chesterfield, Easthampton, Granby, Hatfield, Holyoke, Huntington, Middlefield, Monson, Northampton, Palmer, Pelham, and Springfield.

7.2 Challenges and Opportunities

There is general agreement that cleaner and more efficient energy systems will deliver benefits and cost savings to Southampton residents, businesses and municipal facilities. However, the path to achieving these benefits involves some unique challenges. Many energy issues are beyond local municipal control, such as the proportion of fossil fuel-generated electricity that utilities deliver; the price of natural gas and propane; and the effects that oil price volatility and market conditions have on the cost of home heating oil and gasoline. In some cases, such as transportation, energy-intensive practices such as driving motorized vehicles, will likely continue to be the best option to meet the needs of Southampton—even as these practices become more expensive. Obtaining financing for energy efficiency retrofits and other infrastructure improvements, as well as garnering support for local action, can also be barriers. Further, the payback period on the initial capital costs of energy efficiency equipment typically requires many years, and there is no guarantee that future technologies will not render today's energy investments less efficient.

Ultimately, overcoming these challenges will help Southampton improve the quality of its public infrastructure, save money on public and private utility bills, reduce energy imports, support local economic development and enhance environmental conservation. In the case of electric power, the Town already purchases the majority of its electricity for buildings through the Hampshire Council of Governments, which provides significant savings over market rate electric power. This helps make billing more predictable and builds new markets for renewable power, which HCOG is developing.

One of the leading specific opportunities for energy savings in Southampton is the upgrading of public school facilities. The Norris Elementary School, in particular, is the largest municipal energy user. Providing upgrades to this building will increase overall energy efficiency; it will also increase the comfort of students, teachers and staff at the school to create a better learning and working environment. The Energy Committee's engagement with an Energy Services Company (ESCO) has led to the development of a package of infrastructure improvements that can be financed through the guaranteed efficiency savings, which effectively eliminates upfront costs to the Town. There are also opportunities for renewable energy production in Southampton, especially solar energy, which will be evaluated and pursued. Land use and transportation strategies discussed in other chapters, including more compact development, a well-maintained sidewalk network, and bike paths, all represent major opportunities to reduce vehicle miles traveled (VMT) while increasing the quality of life.

Finally, pursuing other strategies for energy savings for Town government and residents, such as Green Community designation, would also allow the Town to obtain state funds for infrastructure improvements and lower costs for solar energy systems, as well as other benefits.

7.3 Goals and Strategies

Target Dates for Completion are organized into four categories: Short-term (1-5 years); Mid-term (6-10 years); Long-term (11-15 years); and Ongoing.

Goal 7-1: Promote energy efficiency in all buildings and infrastructure

Strategy 7-1A: Produce a 20% energy reduction plan for town facilities and vehicles

Responsible Party: Select Board and/or designee(s)

Resources Needed: Volunteer or staff time to prepare plan.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-1B: Adopt the Stretch Building Code

Responsible Party: Select Board, Energy Committee, Building Inspector

Resources Needed: Volunteer and staff time to provide public hearings on the stretch code and present it at town meeting (requires simple majority).

Target Date for Completion: Short Term (1-5 years)

Strategy 7-1C: Monitor and evaluate progress and savings of town energy efficiency measures

Responsible Party: Energy Committee, Town Administrator and Department heads, and/or ESCo

Resources Needed: Volunteer or staff time to monitor energy use on a monthly or annual basis.

Target Date for Completion: Long Term (11-15 years), ongoing

Strategy 7-1D: Promote federal, state and utility-based energy efficiency incentives, such as the Mass Save program and tax credits

Responsible Party: Energy Committee

Resources Needed: Volunteer or staff time to collect promotional material from incentive programs. If locally-specific promotional material is desired, time for production and a small printing budget will be needed as well.

Target Date for Completion: Long Term (11-15 years), ongoing

Strategy 7-1E: Provide local incentives for energy efficiency and/or renewable energy, such as a rebate, tax credit, free electric vehicle charging at municipal buildings, and similar efforts

Responsible Party: Select Board and/or designee(s)

Resources Needed: The Town can opt to provide local funds that complement state incentives for energy efficiency measures.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-1F: Improve the efficiency of municipal street lights

Responsible Party: Select Board, Highway Department

Resources Needed: Funding for equipment retrofits, new equipment, controllers.

Target Date for Completion: Short Term (1-5 years)

Goal 7-2: Promote Renewable Energy in Town

Strategy 7-2A: Adopt a solar photovoltaic installation bylaw.

Responsible Party: Planning Board

Resources Needed: Board and consultant time. Model bylaws for similar communities in the region and technical assistance from regional planning agency.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-2B: Adopt a wind energy bylaw.

Responsible Party: Planning Board

Resources Needed: Board and consultant time. Model bylaws from similar towns in the region and technical assistance from regional planning agency.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-2C: Solar Photovoltaic installation on landfill.

Responsible Party: Select Board or designee(s), Highway Department

Resources Needed: Time from town volunteers and staff to evaluate financial arrangements that offer the most benefits to the town, such as purchasing the system, leasing the land or purchasing the power from the system. Depending on level of expertise of Town volunteers and staff, may need a solar energy consultant that can explain these options and financial implications. Technical assistance from regional planning agency.

Target Date for Completion: Mid Term (6-10 years)

Strategy 7-2D: Explore methane capture from closed landfill

Responsible Party: Energy Committee, Select Board, Highway Department

Resources Needed: Time from town volunteers and staff to evaluate what infrastructure requirements are needed to capture and use methane emissions from the landfill, and which financial arrangements could be approached to achieve that. The Board of Health may need a consultant with this expertise to assess the conditions at the landfill.

Target Date for Completion: Medium Term (6-10 years)

Strategy 7-2E: Explore possibility of generating hydropower from Tighe Carmody Reservoir

Responsible Party: Water Department, Water Commission, Energy Committee, Select Board

Resources Needed: Time from town volunteers and staff to evaluate what hydropower capacity the reservoir might have, what infrastructure changes would be required to meet that capacity and what state and federal permitting requirements would have to be met. The Water Department may need a consultant with this expertise to assess the conditions at the reservoir.

Target Date for Completion: Long Term (11-15 years)

Strategy 7-2F: Purchase renewable energy for municipal facilities

Responsible Party: Select Board or designee(s)

Resources Needed: Assistance and technical consultation for negotiating green energy purchases

Target Date for Completion: Short Term (1-5 years)

Strategy 7-2G: Promote state, federal and utility-based renewable energy incentives

Responsible Party: Energy Committee

Resources Needed: Support for public outreach

Target Date for Completion: Short Term (1-5 years)

Goal 7-3: Increase energy efficiency from transportation

Strategy 7-3A: Promote cars with higher MPG through local incentives

Responsible Party: Energy Committee, Assessor, Planning Board

Resources Needed: Time from town volunteers and staff to evaluate which incentives make sense for the Town, such as preferred parking spots or excise tax incentives. Town government may need a consultant to assist in the assessment.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-3B: Adopt an efficient vehicle policy for the Town fleet

Responsible Party: Select Board, Town Administrator

Resources Needed: Time from town staff to draft the policy. Model policies from other towns are readily available and PVPC can provide up to 22 hours of free technical assistance to the Planning Board.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-3C: Raise awareness of alternate transportation service programs, such as carshares, NuRides and PVRTA paratransit, with town resources

Responsible Party: Energy Committee

Resources Needed: Volunteer and staff time to promote the policy, provide program brochures and place information readily available on the Town's website.

Target Date for Completion: Long Term (11-15 years), ongoing

Strategy 7-3D: Adopt a "complete streets" policy to provide space for alternative forms of transportation such as biking, walking and inter- and intra-town mass transit in the town's Village Center.

Responsible Party: Highway Department, Planning Board, Energy Committee, Select Board, Greenway Committee

Resources Needed: Time from town volunteers and staff to draft the policy, do citizen outreach and education about its benefits and implementation. Engineering studies and infrastructure design will be needed for each project.

Target Date for Completion: Long Term (11-15 years)

Strategy 7-3E: Promote alternative fuel stations in town, such as plug-in electric chargers and biofuel stations

Responsible Party: Planning Board, Energy Committee, Highway Department

Resources Needed: Volunteer and staff time to evaluate the demand for these types of stations, taking into consideration market ownership and high-traffic areas that could support them.

Target Date for Completion: Long Term (11-15 years)

Strategy 7-3F: Promote biking; install bike lanes where feasible; install bike racks at public buildings

Responsible Party: Select Board, Highway Department

Resources Needed: Revisions to relevant development bylaws and regulations. Funds for equipment and installation at municipal buildings.

Target Date for Completion: Short Term (1-5 years)

Goal 7-4: Obtain Green Community Status and Program Benefits

Strategy 7-4A: Apply for Green Community designation

Responsible Party: Energy Committee, Planning Board, Select Board, Town Administrator

Resources Needed: Time from town volunteers and staff to fill out and submit the application. If Strategies 1.1, 1.2, 2.1 and 2.3 are adopted, Southampton should meet all the criteria for Green Community designation and would be entitled to at least \$135,000 for clean energy projects in town, and additional opportunities for resources.

Target Date for Completion: Short Term (1-5 years)

Strategy 7-4B: Apply for Solarize Mass, a state program to increase the number of solar photovoltaic electrical generating installations by lowering costs to residents and businesses

Responsible Party: Energy Committee, Select Board, Town Administrator

Resources Needed: Time from town volunteers and staff to put together the application as an already-designated Green Community. Time will also be needed to do outreach in the community for the program.

Target Date for Completion: Medium Term (6-10 years)

Strategy 7-4C: Apply for Green Community competitive grants

Responsible Party: Energy Committee

Resources Needed: Time from town volunteers and staff to evaluate upcoming grants and opportunities under the Green Communities program and put together the applications.

Target Date for Completion: Long Term (11-15 years)

