

An Innovative Approach to Renewable Energy and Energy Efficiency Projects in Shutesbury, Massachusetts

Contents

Introduction	1
Strategy	1
Progress	2
Applying Shutesbury's Successes	3
Resources	3

Introduction

Located in the western part of the state, Shutesbury, Massachusetts is a small town in Franklin County. Its population of just 1,834 is encompassed in 26.6 square miles.



Shutesbury Town Hall

In 2002, Shutesbury took a proactive stance on energy and environmental sustainability by joining ICLEI– Local Governments for Sustainability USA’s (ICLEI) network of local governments and forming an Energy Committee to

study and recommend energy conservation policies and projects.

The Energy Committee set a course to pursue four goals: 1) study and recommend energy efficiency and conservation policies and projects in town buildings, 2) install a solar photovoltaic array at the elementary school, 3) install a small-scale wind generator and 4) boost energy education and assistance initiatives in the community.

With only 2 percent of the town budget allotted to energy projects, the Town realized they would need to take an innovative approach in order to successfully enhance energy efficiency in their community and achieve their clean energy goals.

Strategy

Forming an Energy Committee was an essential first step in reaching Shutesbury’s energy goals. The Energy Committee, comprised of local citizen volunteers, provides assistance and education to residents and empowers families and individuals to implement renewable energy and conservation efficiency measures in their homes and daily lives.

The committee took the next step by identifying state grants and rebate money to help offset the costs of renewable energy projects. Funding was available from the Massachusetts

Technology Collaborative (MTC) Renewable Energy Trust, a Center for Ecological Technology (CET) grant, the CEC Green-Up program and a Massachusetts Department of Environmental Protection (MADEP) Climate Protection grant.

In spite of a small town budget, through persistence and creative funding, Shutesbury was successful at undertaking multiple renewable energy projects that will pay back dividends in money, energy security, environmental education and greenhouse gas reduction for years to come.



This case study is part of the Small Communities Toolkit produced by ICLEI– Local Governments for Sustainability and funded by the US Environmental Protection Agency.

Progress

Over the past six years, Shutesbury has successfully introduced a range of energy efficiency projects. Much of the success of these projects is due to the energy education that was made a top priority throughout the community. Shutesbury encourages citizens to discuss and ask questions about the town's clean energy projects in public meetings and online discussions. The Energy Committee works closely with school staff to integrate educational components of the solar and wind projects into the curriculum. Community members can even track the town's energy usage online, providing concrete evidence of the energy savings Shutesbury sees over time. Community engagement of this caliber translates into greater energy awareness for the entire community and fosters support for continued expansion of energy saving projects that can save taxpayer dollars while saving the environment.

Successes and Achievements

By taking advantage of funding sources available for small renewable energy projects, Shutesbury is reducing its greenhouse gas emissions, saving money, and educating its children on the importance of environmental stewardship.

By conducting electric and thermal energy audits on municipal buildings, the Town identified ways to improve energy efficiency and save money through lighting retrofits, improved thermal insulation, and installed energy efficient windows.

The Energy Committee installed a 2 kW solar photovoltaic array on the elementary school roof that will provide clean electric power for the school and educational opportunities for Shutesbury children and citizens.

The Committee investigated the feasibility of installing a small 10 kW wind power generator for Town Hall's electricity needs. MTC advised that

the Town postpone the project until more advanced wind turbines become available.



Solar Panels on the roof of the Shutesbury elementary school

To date, Shutesbury has produced 4,780 kWh of clean energy and reduced their annual greenhouse gas emissions by

- 618.3 lbs of CO₂
- 2.682 lbs of NO_x
- 1.314 lbs of SO_x



Proposed site of wind turbine installation behind Town Hall

For Fiscal Year 2010, the Financial Committee and the Selectboard asked all departments to reduce their budgets by 0.25 percent, which will result in \$13,600 which will be used to finance energy efficiency projects throughout the Town.

Applying Shutesbury's Successes

Shutesbury has been successful in its goal to implement renewable energy policies and projects, as well as enabling the residents to practice energy efficiency in their daily lives. Their success is attributed to hosting town meetings, which fostered community engagement and built support, researching state funding opportunities available for renewable energy initiatives, and by providing

transparent evidence of cost-savings to the residents.

To further help small communities, ICLEI has created a toolkit designed to provide the resources and tools needed to help small communities begin working on environmental agendas, climate action plans, and a sustainable future.

Resources

[Town of Shutesbury Energy Committee](#)

[SolTrex](#)

[ICLEI —Local Governments for Sustainability USA](#)

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