

Long Island Green Homes Program in Babylon, New York

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This case study is part of the Municipal Clean Energy Toolkit produced by ICLEI—Local Governments for Sustainability and funded by the Massachusetts Renewable Energy Trust

Introduction

Babylon, New York is a large, culturally diverse community located on Long Island. Babylon is home to 216,125 residents that are spread across the Town's 53 square miles of barrier beaches, hamlets, and incorporated villages.

Babylon has long been a champion of climate and sustainability efforts, driven mainly by Town Supervisor, Steve Bellone. In 2006, under the guidance of Supervisor Bellone, Babylon was the first Long Island township to require that all new home construction be built to ENERGY STAR® standards. Additionally, in December of that year, the Town adopted the most comprehensive Green Building Code in the nation, requiring all commercial and industrial buildings over 4,000 square feet to meet the US Green Building Council's LEED Certified standard. 2006 was also the year that Babylon joined ICLEI—Local Governments for Sustainability (ICLEI). As part of ICLEI's Five Milestones for Climate Mitigation, Babylon conducted a community-wide greenhouse gas (GHG) emissions inventory. Results of this inventory indicated that the majority of the Town's GHG emissions were a result of existing buildings; in Babylon the average home is responsible for



Gilgo Beach, Babylon, NY

emitting 25 pounds of carbon dioxide each day. In order to have an impact on existing buildings, Babylon sought ways to promote energy efficiency in the Town's 65,000 homes. The result was the [Long Island Green Homes Program](#). This program is a self-financing, residential retrofit program for upgrading the energy efficiency of existing homes in the Town. The program will enable residents to reduce the carbon footprint of their homes at little or no out-of-pocket cost. The program's goals are to reduce carbon emissions by 65,000-130,000 tons, reduce energy costs for homeowners and create 6,600 new green collar job-years. Under the Long Island Green Homes Program, it is estimated that the average resident will reduce home energy costs by \$984 a year.

Strategy

The first step Babylon needed to determine was how to finance the Long Island Green Homes program. Babylon is partnered with Covanta in an energy-

from-waste facility. The state requires the Town to maintain a reserve fund to cap the inert ash produced in this process. This pool of money seemed like

a conceivable source for funding a pilot for the Long Island Green Homes program. The only problem was how to tap this dedicated solid waste fund? To overcome this barrier, the Town expanded the definition of solid waste to include energy waste by dint of its carbon component—thereby allowing the Town’s solid waste reserve fund to be used for financing home energy audits which will reduce the amount of carbon waste generated. Two million dollars from the solid waste reserve fund was allocated to be used as a revolving fund to finance the Long Island Green Homes program.

The program works by having a homeowner contact the Town indicating that they are interested in a home energy audit. The resident is then asked to fill out a home inventory form that denotes some basic energy use information about the home. From here, the Town sends a town-licensed [Building Performance Institute](#) Accredited energy auditor to the home to conduct a home performance evaluation. The resident receives a detailed report explaining the findings from the home performance evaluation along with a list of measures and their associated cost that the homeowner could undertake to increase their home efficiency. The homeowner decides which measures to pursue, signs a contract with the Town and receives financing through a benefit assessment charge that is tied to the homeowner’s property. Residents pay off the benefit assessment via monthly payments that are determined based on the projected energy savings they will achieve from the retrofits. Projected energy savings are estimated by Home Check (a software program used by the Long Island Power Authority). Homeowners that qualify can receive up to \$12,000 worth of energy-efficient work.

If residents are delinquent in paying their monthly bill, the benefit assessment is transferred to the homeowner’s property tax bill. The interest rate for the program is 3 percent, which covers administrative costs. The contractors that undertake the work are paid directly by the Town

of Babylon out of the Town’s revolving fund monies.

The Town has found this financing mechanism to be significantly more attractive to private investors than on-bill utility financing because of the security from attaching the lien on the property.

Thanks to strong leadership from Town Supervisor Steve Bellone, the Long Island Green Homes Program has moved from idea to reality. To gauge the ease and usability of the initiative, Supervisor Bellone audited and retrofitted his house first. This allowed the contractor to understand the program, provide suggestions, and help design an effective implementation strategy. This contractor now serves as the Lead Operational Contractor for the program.

The Town has worked hard to publicize the program to all 65,000 households in Babylon by undertaking a number of initiatives, including the dissemination of free compact fluorescent light bulbs that contained information about the program and free energy tip booklets. Additionally, in January 2009, the Long Island Green Homes program was featured on the cover of a recycling calendar sent to each household in the Town.

Babylon is also raising awareness of the program by speaking with community groups, schools, and attaching program stickers to park permits. Dorian Dale, Energy Director for the Town of Babylon, has organized and led a series of talks at local libraries and with community groups on the Long Island Green Homes program and how residents can take advantage of this program.



Progress

Challenges

One of the major challenges of this program was determining where the money for the revolving fund was going to come from. The Town approached energy services companies (ESCOs) to ask if the commercial energy audit program could be expanded to the residential sector. Unfortunately, that model did not appeal to the ESCOs. The Town then looked to the solid waste reserve fund, which is a fund required by their waste management provider to dispose of fly ash by-products from the incineration of the Town's solid waste. Fortunately, use of this fund did not require any additional user fees, but it did require the Town Board to approve a resolution amending the Town's Solid Waste Code to include carbon waste as a type of solid waste. And finally, while the program has been a great success, there is still a need to engage and create interest amongst residents to participate in the program.

Success and Achievements

As of April 2009, Ninety-eight homes have been retrofitted or are in the queue to be retrofitted. The retrofits conducted to date have resulted in a 30 percent reduction in air flow, as measured by

blower-door tests. The average energy retrofit job is about \$7,000 and the average home owner savings is about \$984 per year. The average home in Babylon participating in the Long Island Green Homes program is estimated to reduce five to ten pounds of carbon emissions per day, or approximately a 20 to 40 percent reduction in overall household emissions.

In addition, the Town of Babylon is collaborating with the local Board of Cooperative Educational Services (BOCES) to create a training program for Energy Auditors. The Town is also working closely with Plumbers Union Local 200 to provide the training necessary to perform some of the energy efficient improvements under the program. The Town has also just applied for a Federal EPA stimulus grant to seed a Green Jobs Corp training program in the most economically distressed part of Babylon.

Babylon expects most of the administrative costs, excluding the salaries of existing staff who were redeployed to the program, to be covered by the 3% annual interest rate included in the monthly payments. There are three full-time staff working on processing applications, program administration, and measurement and verification.

Applying Babylon's Successes

Much of Babylon's success is attributed to the strong leadership and support by Town Supervisor Steve Bellone. Supervisor Bellone saw that the largest source of carbon emissions in the Town were from existing buildings and worked to establish an initiative to reduce these emissions in order to reach the Town's commitment to reduce greenhouse gas emissions 12 percent by 2012. While all components of this model may not be completely replicable, as it requires the jurisdiction to have State authorization to create a revolving loan fund and a solid waste or energy

improvement district, it does demonstrate an excellent example of creative and innovative financing and the importance of having a local champion.

Additionally, Babylon's success reinforces the need to focus on energy efficiency before installing renewable



Streets of Babylon, NY

energy systems. The Long Island Green Homes program has just made available up to an additional \$500,000 to provide financing for solar installations, but this is only available to homes that already meet the ENERGY STAR Standard for new homes or has completed the thermal envelope work under the program. This re-emphasizes to the homeowner: efficiency first; renewables second.

To further help municipalities plan for energy efficiency and clean energy, ICLEI has created a [Municipal Clean Energy Toolkit](#) designed to provide the resources and tools to help municipalities with installing, financing, and promoting clean energy.

Resources

[The Town of Babylon](#)

[Long Island Green Homes Program](#)

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

Special thanks to Dorian Dale, Town of Babylon Energy Director for providing valuable information and insight used in development of this case study.