

# CLIMATE SMART COMMUNITIES

## PROJECT PLAN

Prepared for the

**New York State  
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Prepared by



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## 1. Regional Greenhouse Gas Inventory

### 1.1. Development of the Inventory by NYIT

In late 2011, the Rauch Foundation funded an effort by the New York Institute of Technology (NYIT) to draft a comprehensive regional greenhouse gas (GHG) emissions inventory for Long Island's (LI) Nassau and Suffolk Counties. Inventory methodology is based in large part on the protocols developed by the New York State (NYS) GHG Protocols Working Group managed by Climate Action Associates and administered by the New York State Energy Research and Development Authority (NYSERDA). The protocols utilized by the NYS GHG Protocols Working Group and NYIT are largely based on the ICLEI1 protocol (Local Government Operations Protocol version 1.0).

The LI GHG Inventory includes the following sources:

- Direct fuel use and electricity
- Transportation
- Industrial processes
- Agriculture
- Waste (wastewater and solid waste)
- Land use, land-use change, and forestry

The Inventory utilizes data from the following sectors:

- Residential - building energy consumption
- Commercial and Industrial - building energy consumption
- Municipal - building energy consumption (included in commercial sector)
- Land Transportation - vehicle and fuel types, VMT
- Marine Transportation - recreational only
- Solid Waste - generation rates and disposal types
- Waste Hauling - types and destinations
- Wastewater Treatment – large and small STPs, and on-site wastewater systems
- Land Use - agriculture, forested areas, open space
- Streetlights - type

Most data collected in the Inventory is parsed by taxing jurisdiction (town and county) and in some cases by zip code. An effort is underway to determine if fuel oil sales tax data could be utilized to better define oil consumption by taxing district. Data distribution is as follows:

- LIPA electric data by municipality (including villages and some unincorporated areas)
- National Grid gas data by zip code – request made to sort by municipality
- Fuel Oil – from the Oil Institute of Long Island
- Transportation data – by community, but includes vehicles travelling through

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<sup>1</sup> ICLEI – 'International Council for Local Environmental Initiatives' is now known as 'ICLEI - Local Governments for Sustainability'

The LI GHG Inventory report prepared by NYIT will compare 2005 and 2009 emissions by taxing jurisdiction, although the comparison will be complicated by minor differences in methodology, economic issues, weather changes, and more. A website is under development and when completed will have the 2005/2009 comparison by sector and municipality. The site will link to the CSC website. A preliminary rollout of the website is scheduled for the early fall of 2012 with completion anticipated by early December 2012.

### ***1.2. Utilization of the Inventory***

The CSC Team will utilize the LI GHG Inventory as the 2009 emissions baseline for each of the participating municipalities. Each of the sectors will be reviewed and compared with other regional data to prioritize the sectors that could benefit most from Climate Action Planning.

The baseline GHG Inventory will be used to measure the success of the Climate Action Plans developed by the participating CSCs. The data collection and analysis tools developed for the Inventory will be delivered to the municipality for their future use in tracking energy consumption and costs and GHG emissions.

## 2. Engagement with Communities

### 2.1. Participating and Candidate CSC

As of this writing (August 2012), six towns and three villages have taken the CSC pledge. They are:

- Towns – Babylon, Brookhaven, Huntington, Islip, North Hempstead, and Smithtown
- Villages – East Rockaway, Port Jefferson, and Woodsburgh

Long Island has two counties, 13 towns, two cities, and 97 villages. The CSC Team is focusing its efforts on the existing CSCs and on a limited number of potential communities in order to give the municipalities the requisite assistance. Toward that end, we are targeting the following candidate municipalities because of their size, demonstrated interest in policies or projects related to climate action, and/or some unique characteristic:

- Suffolk County (size, recently appointed Sustainability Coordinator, solar PV construction and transit initiatives)
- City of Glen Cove (one of only two Long Island cities, major development project proceeding on waterfront, other developments in planning stages)
- City of Long Beach (one of only two Long Island cities, dense waterfront community with LIRR station, developments in planning stages)
- Town of Hempstead (installed an innovative energy park in Lido Beach, developing energy efficiency initiative at town buildings, potential for major transit initiative at Nassau Hub)
- Town of Southampton (participates in Green Homes program, has an Energy and Sustainability Coordinator, has a ‘Sustainable Southampton Green Committee’)
- Selected villages (of sufficient size and willing to participate, have their own facilities and infrastructure, have downtowns)

A matrix of Long Island villages will be developed to identify villages that might be most suited and those most in need for participation in CSC. The Team will work with the six most suited villages that agree to take the CSC pledge. The Team will initiate additional recruitment if participation by the candidate towns, cities, or villages is not as anticipated.

All Long Island municipalities will receive marketing materials that describe the program and its benefits. Those that are not already CSC will also receive an invitation to become a CSC by taking the CSC Pledge by municipal resolution. Municipalities will need to show interest in accomplishing climate change actions, not just signing on, in order to be confirmed as a candidate CSC that the team will work closely with in Year 1. After a follow-up email, Team members will contact those candidate municipalities (officials and/or department heads) that did not respond and those that responded positively to initiate next steps.

## **2.2. Completion of Municipal CSC Questionnaires**

Candidate CSCs will receive a detailed questionnaire that solicits information on facilities, operations, actions, and projects undertaken and planned by the municipality to reduce GHG and prepare for climate change. To minimize required municipal staff time, the questionnaire will be brief, will offer check boxes for most questions, and will be emailed to municipalities. The email will also offer a link to an online version. The questionnaire will be patterned after the one issued by the Sustainability Institute at Molloy College to municipalities as part of their Clean Energy Task Force program.

## **2.3. Meetings with Municipal Task Forces and Coordinators**

The Team will assist each of the existing and new CSCs to establish a CSC Task Force and a Coordinator. The CSC Task Force will include elected officials (county executive; supervisors or councilpersons; mayors or trustees), department heads (planning, operations/facilities, finance, DPW/highway, purchasing, sustainability coordinator, village administrator), and community representatives. Each CSC will identify the most appropriate individual to act as Coordinator. Some communities already have a ‘Sustainability Coordinator’ or similar position, while others have a Conservation Committee chairperson that might serve in such a role. The Team will hold a series of meetings with the CSC Task Forces.

The initial meeting will be held with municipal decision makers or their representatives to introduce the program, define its goals, speak to the requirements and benefits of participation, and seek the participation of those that have not taken the CSC ‘pledge.’ We will review the questionnaire that will have gone out, municipal priorities, actions completed and in progress, possible anchor projects, the draft GHG Inventory and website, and will schedule the next meeting to either complete the questionnaire or review it with the appropriate departments. The following goals of the CSC program will be introduced:

- Develop a local Climate Action Plan to reduce GHGs and reduce the community’s vulnerability to climate change and sea level rise
- Implement improvements to municipal facilities and operations as a model for the community

A subsequent set of meetings will be utilized to review the questionnaire for completeness and accuracy and request any additional information needed to analyze the municipality’s climate change resiliency. We will describe the components of a typical Climate Action Plan and steps needed to draft the Plan. At these or subsequent meetings, the Team will present the CSC Task Force with a template for a Climate Action Plan and model plans from other communities.

### **3. Development of a Climate Action Plan**

#### **3.1. Assistance Drafting a Climate Action Plan**

Development of a Climate Action Plan by each CSC is one of the two goals of the program. The Team will explain the goals of the Action Plan at each of the first individual meetings with the CSC Task Forces. A model plan and plan template will be delivered to each CSC Sustainability Coordinator.

##### **3.1.1. Review and Refine the GHG Inventory**

The Team will review the community's GHG Inventory as prepared by NYIT with the Sustainability Coordinator for its completeness and for its utility as a baseline for assessing the effectiveness of the Climate Action Plan in future years. The Inventory will also serve as a tool for evaluating the progress made by the municipality relative to other Long Island and New York State municipalities.

##### **3.1.2. Complete a Matrix of Completed and Planned Actions**

Most of the existing and candidate CSCs have put into place some policies and codes that will help lower GHG emissions. Some have made changes to their facilities, fleets, or street lights to lower energy consumption and reduce GHG emissions. A few have installed renewable energy.

The Team will develop a matrix of completed programs, policies, facilities, and renewable installations for each participating and candidate CSC. The matrix will be reviewed and updated at the first meeting with each Local CSC Task Force for completeness and planned items added to the matrix. The matrix will then be used to identify gaps and therefore opportunities.

##### **3.1.3. Prepare a Municipal GHG Inventory to Prioritize Actions & Track Progress**

The Team will assist the municipality assemble a separate GHG inventory of its own facilities and operations by using the same spreadsheets utilized for the community-wide GHG Inventory. These spreadsheets will be formatted according to the Standard Inventory Report established by ICLEI's Local Government Operations Protocol, version 1.1. This Inventory Report will serve several functions. It will permit those municipalities that have not done so, to evaluate the energy consumption (and GHG emissions) of their facilities, vehicles, and street lights. It will allow them to determine with our assistance where there may be opportunities to reduce energy consumption, lower GHG emissions, identify available funding, and save money. The Inventory will

allow municipalities to measure, track, and report progress toward lower GHG emissions. Existing members of ICLEI (towns of Babylon, Brookhaven, North Hempstead, and Southampton, village of Southampton, and Nassau County) and the Climate Registry (none) and new members will be able to utilize the Standard Inventory Report to assist with their reporting requirements.

The Municipal Inventory will allow the Team to estimate current energy consumption and generation and plan for improvements. The Team will assist each CSC to prioritize capital projects by evaluating requirements, costs, and savings using financial estimation tools provided by the [US Environmental Protection Agency](#) (EPA) and others. Municipal actions can serve as a model for the greater community.

#### 3.1.4. Provide Marketing Materials and Outreach

The Team will develop website materials for program information and communication with existing and potential CSCs. Materials of value statewide may reside on NYSERDA's website while Long Island specific materials will be hosted locally, with links between the two. The website materials will include information on the CSC program – its goals and objectives, participation benefits, information on taking the CSC 'Pledge,' and a list of CSCs. The site will incorporate case studies, model codes, Anchor Projects, and links to information for the public.

The outreach effort will include provision of information at existing meetings such as the Long Island Green Homes, a meeting of the Village Officials Association in each county, the Sustainability Institute's Clean Energy Task Force meetings and if possible, Vision Long Island's Smart Growth Working Group meetings. With permission from the sponsoring organization, we will present information on the CSC program at the Nassau County Planning Federation Conference on September 10, Smart Growth Summit on November 15, Suffolk County Planning Federation conference – November 29, and Sustainable Long Island's spring conference. We will have marketing information prepared for distribution at a booth (if available) and an individual there to discuss the program with interested municipal representatives.

Long Island environmental and energy advocacy groups will be kept informed of CSC progress and their support solicited. Groups will include Citizens Campaign for the Environment, Group for the East End, Friends of the Bay, Renewable Energy Long Island, Long Island Solar Energy Association, and the Long Island Electric Auto Association.

### 3.1.5. Provide Information and Guidance

The Team will provide information to the CSCs on existing energy efficiency and renewable programs and funding opportunities including the following:

- NYSERDA Long Island Green Homes
- NYSERDA Home Performance with Energy Star
- LIPA and National Grid energy efficiency and renewables programs
- Solar Fast Track permit program

Land use codes that are supportive of smart growth and transit oriented development will help reduce GHG emissions as residents are more able to live, work and play in the same community or have convenient transit options. The Team will review municipal land use and building codes to determine if they are supportive of the kind of future that reduces GHG emissions and vehicle miles travelled and increases transit options. The Team will encourage the development of uniform commercial solar photovoltaic codes to help stimulate what could be a large market for investor-owned utilities.

The Team will follow the efforts of the [New York & Connecticut Sustainable Communities](#) program. In Nassau County, a study is underway to identify communities with Long Island Railroad (LIRR) stations that are most suitable for redevelopment. Suffolk County plans to study transfer-of-development-rights efforts as a potential mechanism for jointly preserving land and spurring transit-oriented communities.

Several major transportation initiatives are underway on Long Island. Nassau County is developing a plan for transit improvements and new transit (such as premium bus and modern streetcar) in the area referred to as the Nassau Hub. Suffolk County is redeveloping the Ronkonkoma Hub as a major intermodal center and new mixed use community. Suffolk County's 'Connect Long Island' initiative will create north-south transit connections along Route 110, Nicholls Road, and the Sagtikos Parkway. The LIRR is designing a second track between Ronkonkoma and Hicksville, which will add capacity to the stations along that route. These transportation initiatives will make it possible for residents and worker in the involved communities to reduce vehicle emissions by increasing transit use. It will also stimulate transit oriented development. The potential impacts of these projects on the CSCs will be addressed.

The Team will investigate potential participation by undergraduate or graduate students as project assistants. We will reach out to area colleges and universities to identify potential intern programs. Interns may be able to assist with GHG inventory data collection and provision of program information to candidate and participating communities.

### 3.1.6. Plan Community-Wide Actions

There are good examples of Climate Action Plans throughout the country. The US Environmental Protection Agency (EPA) lists current plans on its [website](#). The NYS [DEC website](#) lists actions taken by many communities in New York. The Team will provide Local CSC Task Forces with examples of Climate Action Plans and model codes and ordinances from other communities. The examples will be keyed to the gaps identified in the Matrix of Completed and Planned Actions.

The Team will prepare a Climate Action Plan template that includes community-wide initiatives that can be taken to lower GHG emissions through changes in the municipality's building and land use codes, residential and commercial energy efficiency and renewable energy incentive and rebate programs. The template will also be keyed to the gaps identified in the Matrix of Completed and Planned Actions.

### 3.1.7. Assist with Development of Plan for Adaptation to Climate Change

The Team will review the municipality's readiness for climate change including preparations for sea level rise where appropriate (all towns and both cities have coastlines, but only some villages). The Team will assist municipal departments plan for the potential impacts of sea level rise. We will utilize information on sea level rise from the state's [Office of Climate Change](#). We will assist municipalities with adaptation planning by recommending revisions to zoning, modifications to existing infrastructure, and adjustments to capital projects plans. The Team will also suggest options for sea level rise mitigation.

## **3.2. Complete Climate Action Plans and Identify Anchor Projects**

### 3.2.1. Complete the Climate Action Plan

Draft Climate Action Plans will be reviewed at a second meeting of each of the Local CSC Task Forces. Gaps in the Plan and steps needed to complete it will be identified. Challenges in the development of the Climate Action Plan will be discussed and new information (federal, state, county, and utility programs) reviewed.

### 3.2.2. Identify Anchor Projects

It is important that each municipality have the opportunity to highlight its achievements and plans to lower GHG emissions and adapt to climate change. The Team will include a section in the Climate Action Plan and in selected marketing materials for municipal successes.

All CSCs will be encouraged to develop a special or ‘Anchor’ Project that might be a new policy or program that greatly advances the municipality’s climate adaptation efforts. Anchor Projects might incentivize residential or commercial energy efficiency or renewable energy production. They might include major LEED developments, transit projects, Smart Growth codes, or sea level rise mitigation measures. Completed projects that are good models for other communities may be marketed as Anchor Projects.

Municipalities that develop plans for Anchor Projects may be in a better position to receive implementation funding through NYSERDA’s Cleaner Greener Communities program.

### ***3.3. Coordinate with Cleaner Greener Communities Program***

Cleaner Greener Communities (CGC) launched in the summer of 2012. A plan will be generated to create sustainable communities by funding smart development practices that improve the economic and environmental health of Long Island. The CGC program will make recommendations on land use, housing, transportation, infrastructure, energy, and environmental practices. Practices and programs identified by the CGC program will help increase energy efficiency, will provide cost savings, increase renewable energy use, and reduce reliance on fossil fuels.

Most of the initiatives of the CGC program will also lead to reductions in GHG emissions. The information requested of the involved communities will be similar. The CSC Team will reach out to the CGC Planning Team and their consultant to determine what coordination efforts might be possible.