



# Cleaner Greener Long Island Regional Sustainability Plan Appendix

May 2013



**Prepared for**

Cleaner Greener Consortium of Long Island  
Town of North Hempstead, Lead Municipality

**Prepared by**

AECOM  
Regional Plan Association

**In association with**

Community Development Corporation of Long Island  
Sustainability Institute at Molloy College  
Vision Long Island

Under a grant from the NYSERDA Cleaner Greener  
Community Program

# APPENDIX

## Cleaner Greener Long Island Regional Sustainability Plan

Long Island Carbon Footprint Project (Summary of GHG Inventory), New York Institute of Technology, February 2013

Review of GHG Inventory and Business As Usual Projections, AECOM, February 2013

Energy Subject Area Baseline -Compendium of Plans Reviewed, Sustainability Institute of Molloy College, February 2013

Land Use Baseline – Summary and Compendium of Plans Reviewed, Vision Long Island, February 2013

Economic Development and Housing – Compendium of Plans Reviewed, Community Development Corporation of Long Island, February 2013

Sustainability Indicator Memo & Inventory, AECOM, March 2013

List of Potential Strategies for Future Consideration, AECOM, April 2013

Public Participation Summary, Vision Long Island

List of Stakeholders, Vision Long Island, April 2013

Prepared for:

Cleaner Greener Consortium of Long Island  
Town of North Hempstead, Lead Municipality

Prepared by:

AECOM  
Regional Plan Association

In association with

Community Development Corporation of Long Island  
Sustainability Institute at Molloy College  
Vision Long Island



Under a grant from the Cleaner Greener Community Program,  
New York State Energy Research and Development Authority



School of Engineering and Computing Sciences



LONG ISLAND CARBON FOOTPRINT PROJECT  
2005-2010 COMPARISON

FEBRUARY 2013

## **Table of Contents**

## **Page No.**

New York Institute of Technology (NYIT) Introduction	3
Executive Summary	3
Purpose of Long Island Carbon Footprint Project	5
Project Description	5
Outcomes: Long Island Greenhouse Gas (GHG) Emissions By Sectors and Sources	6
1. Built Environment	8
a) Residential Energy	9
b) Commercial/Industrial Energy	10
c) Street Lighting	12
2. Transportation	12
a) On- Road	13
b) Railway	15
c) Marine	16
d) Aviation	17
3. Waste Management	17
a) Incineration	19
b) Landfills	19
c) Waste hauling outside Long Island	20
d) Wastewater (Sewage) Treatment	20
4. Agriculture	20
5. Land Use Change & Forestry	21
6. Stationary Energy Generation and Supply	22
7. Transmission and Distribution Losses	22
a) Electricity T/D Loss	22
b) Loss And Unaccounted For Gas (LAUF)	23
Conclusions & Recommendations	23
Our Associates	24

# **New York Institute of Technology (NYIT)**

## **Institutional Background**

NYIT offers 90 degree programs including undergraduate, graduate, and professional degrees in more than 50 fields of study. These include architecture and design, arts and sciences, education, engineering and computing sciences, health professions, management, and osteopathic medicine. A non-profit independent, private institution of higher education, NYIT has 14,000 students attending campuses on Long Island and Manhattan, online, and at its global campuses.

NYIT has been a pioneer in the areas of sustainability and green initiatives in the academic and research worlds. The M.S. degree in Energy Management is one of the nation's oldest and most unique programs. The program has been preparing students to work in major energy companies, power plant, and renewable energy start-ups for more than 25 years. The M.S. degree in Environmental Technology has been offered since 1992 and incorporates the teaching of carbon footprint measurement throughout its coursework, as does the Energy Management degree program.

The Graduate Center for Metropolitan Sustainability, an interdisciplinary and collaborative effort between different NYIT schools, embraces both academic and physical initiatives that demonstrate NYIT's commitment to sustainability. The initial focus is to reduce on-campus greenhouse gas emissions and improve educational outreach. By implementing energy conservation measures, pursuing research opportunities in alternative energy technologies, and sharing those practices and applications through teaching and conferences, NYIT leads by example and provides the public with valuable career oriented experience, training and technology.

## **Executive Summary**

Governor Cuomo's reauthorization of Governor Paterson's Executive Order sets a goal for New York to reduce its greenhouse gas emissions. The Energy Efficiency Portfolio Standards (EEPS) established a goal of reducing electricity usage by 15% statewide by 2015 and the Renewable Portfolio Standard (RPS) establishes a goal of generating 30 percent of New York's electricity from renewable energy sources by 2015.

Two New York State initiatives have been established to promote reduction in GHG emissions and to assist local communities in planning and training to reach sustainability goals: Climate Smart Communities under the direction of the NYS DEC and Cleaner Greener Communities administered by NYSERDA. Both are required to assess current local greenhouse gas emissions and energy use, along with available natural resources and economic assets, liabilities, and opportunities. In addition, they set sustainability targets for energy supplies, transportation, waste and water management, land use, housing, agriculture, economic development, and open space.

NYIT is coordinating with both of these groups to provide the most up to date GHG inventory on Long Island. This data will establish a baseline so that selected communities will have a benchmark at their disposal to identify those areas of greatest GHG emissions and to track their pro-

gress in reducing the same. The inventory will be updated on a regular basis and released to the public through an interactive website dedicated to the Long Island carbon footprint inventory.

With funding from the Rauch Foundation, this report presents the results of the Long Island GHG inventory for calendar year (CY) 2010 compared to (CY) 2005 (completed by ICLEI and revised by New York Institute of Technology (NYIT)). This report was prepared by NYIT.

Significantly, Long Island's Greenhouse Gas emissions decreased in 2010 by 9.75 percent below 2005 levels.

Long Island was responsible for 35.2 million metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) emissions in 2010 and 39.1 million metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) emissions in 2005.

These figures include GHG emissions generated from the Built Environment (residential, commercial and street lighting), Transportation (On-road, railway and marine), Waste management (incineration, landfills, waste hauling outside Long Island and wastewater (sewage treatment) emissions. Both the aviation and agriculture sectors were not included in this inventory. As a more accurate methodology for determining GHG emissions is developed and further analysis is completed, these categories will be added to future inventories. Transmission and distribution losses on the electricity network as well as lost and unaccounted for natural gas distribution losses on Long Island are identified for CY 2010 only.

On a per capita basis, the average Long Islander was responsible for 12.45 metric tons equivalent of GHG emissions in 2010, compared with 13.8 MT CO<sub>2</sub>e in 2005, excluding emissions such as the agriculture, land use change and aviation sectors. 19.0 metric tons of carbon dioxide equivalent is the average American GHG emission per capita.

Per capita GHG emissions on Long Island declined from 2005 to 2010 by 9.78%.

Further reductions are expected going forward in the Built Environment as additional investments are made and the benefits of energy efficiency projects and operational changes take effect. The results described here show the impact of concerted efforts to make Long Island more energy efficient. Significant reductions in emissions from on-road transportation due to increased fuel efficiencies, alternative fuels and hybrid and electric vehicles will continue as local and national requirements take effect. GHG Reductions in wastewater treatment plants will be realized due to investments to repair and upgrade systems in Nassau and Suffolk counties.

This annual inventory provides critical information on the trends of GHG emissions and the many factors that influence changes to emissions over time. As more data becomes available, future inventories will document the impact of Long Island's ongoing Sustainability efforts, including efforts to make the Island's buildings more energy-efficient, develop more sustainable transportation options, and reduce fugitive GHG emissions from solid waste, wastewater treatment and other sources.

## **Purpose of the Long Island Carbon Footprint Project**

In 2010, through the support of the Rauch foundation, NYIT was commissioned to update and improve a 2005 carbon footprint study on Long Island done by the International Council for Local Environmental Initiatives (ICLEI), also named Local Governments for Sustainability, and to develop and standardize a local community greenhouse gas inventory and accounting process going forward. Energy use and resultant greenhouse gas (GHG) emissions on Long Island for the year 2010 were established and were compared to the 2005 baseline year. Through this process, some comparisons between 2005 and 2010 were found to conflict; such as in the case of commercial fuel oil, or impossible such as in the case of transmission and distribution losses, due to different data sources and/or data unavailability. This will be explained later in the respective sectors. Through this project, NYIT will update and enhance the measurement and presentation of the Long Island Carbon Footprint in conjunction with various organizations and institutions on Long Island. NYIT is uniquely positioned to provide this comparison of GHG emission studies for the Long Island community. At the same time, this project is at the forefront of its kind in comparing collective carbon emissions on a local and regional level, not bound by common jurisdictional boundaries.

The regional inventory serves as a rallying point for governments, businesses, organizations and residents to coordinate climate initiatives across Long Island. It is intended to provide local communities with baseline and progress measurements of GHG emission data, and maximize the collective efforts of local and regional entities to begin charting a course for emission reduction throughout the region.

## **Project Description**

According to the 2010 census from the U.S. Census Bureau, the population of Nassau County is 1,339,532 and Suffolk County is 1,492,364 with combined total of 2,831,896<sup>1</sup>. In 2005, the population of Long Island was 2,831,753<sup>2</sup>(Suffolk and Nassau combined).

This project encompassed two counties, 13 towns and two cities. Data sources were identified and activity data<sup>3</sup> was collected from various organizations, agencies, and utilities at the state, local and regional levels. One of the goals of the project was to coordinate climate initiatives across local communities on Long Island, hence allocating emissions by towns and cities are essential. In order to do that, various models and programs were used. For example, Geographic Information System (ArcGIS 10<sup>®</sup>) was used to allocate natural gas, transportation and land cover data. Where data was not available as in the case of fuel oil, statistics were used analyzed and allocated down to town and city level. Protocols and guidelines were used where appropriate and depending on the sector and source, emission and conversion factors were identified and

---

<sup>1</sup> 2010 U.S. Census

<sup>2</sup> 2005 LIPA Population Survey

<sup>3</sup> Activity data is data on the magnitude of a human activity resulting in emissions taking place during a given period of time. For example, energy use, fuel use, and vehicle miles traveled are some of examples of activity data that might be used to compute GHG emissions.

used to compute carbon footprint. Following the latest available science and protocols on GHG emissions and for comparison purposes, all 2005 data were revised and updated.

This year, NYIT is also proud to be part of the New York State Energy Research and Development Authority's (NYSERDA) GHG Working Group<sup>4</sup> to refine emission protocols for the nation's first statewide community inventory at a regional level.

## **Greenhouse Gas Emission**

---

Greenhouse gas is a gas in the atmosphere that absorbs and emits radiation within a thermal infrared range. This process is the fundamental cause of the greenhouse effect. Carbon footprint is measured in the universal unit of metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e), for comparing emissions of different greenhouse gases, such as carbon dioxide, methane and nitrous oxide, expressed in terms of the global warming potential in equivalent units of carbon dioxide.

## **Outcomes: Long Island Greenhouse Gas (GHG) Emissions**

---

In order to demonstrate GHG emissions, we have separated the results into sectors and sources.

A “sector” is a way to classify human activities that generate greenhouse gas (GHG) emissions, such as residential, commercial and industrial use of energy, modes of transportation, and forms of waste management. In 2010, there were seven categories, broken into 16 sectors, as described later in the report, which produced GHG emissions on Long Island: the built environment, transportation, waste management, agriculture, land use change and forestry, stationary energy generation, and transmission and distribution losses.

A “source” is an alternative way of classifying how GHG emissions are generated, such as the use of fuels or the process and fugitive emissions generated due to certain processes. The sources in this project include electricity, natural gas, fuel oil, gasoline and diesel.

The total GHG emission on Long Island in 2010 was 35,262,459 MT CO<sub>2</sub>e, marking a reduction of an overall 9.75% compared to 39,072,513 MT CO<sub>2</sub>e in 2005. The emissions include the following sectors: residential, commercial, street lighting, on-road transportation, railway, incineration, landfills, waste haulage outside of Long Island, wastewater and marine. Due to the lack of appropriate data and data unavailability whether in 2005 or 2010, the following sectors were not added into the overall emissions for comparisons, but they served as informational items: agriculture, land use change and forestry, stationary energy generation, and transmission and distribution losses.

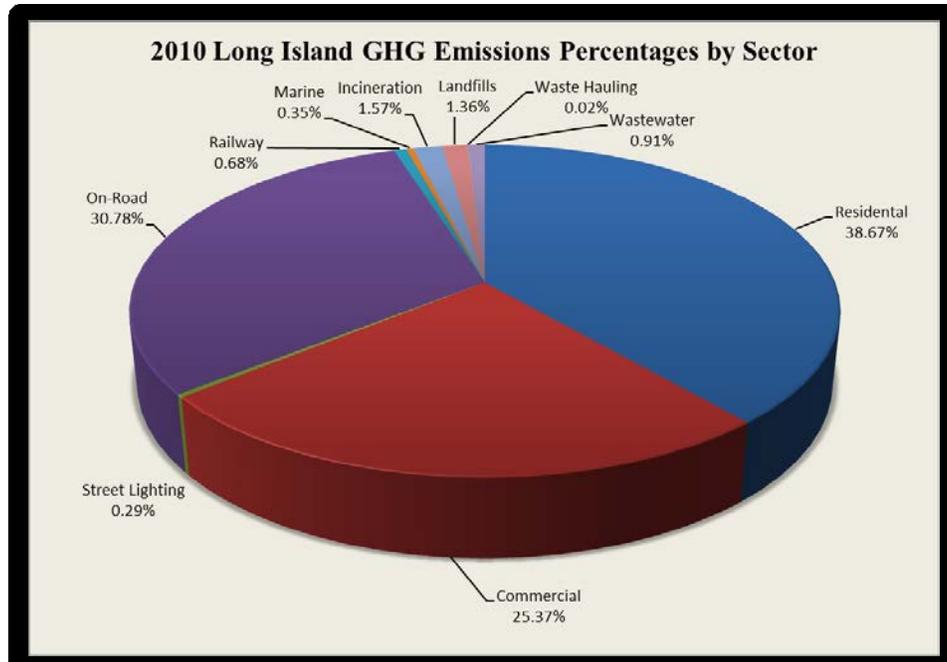
The GHG emissions on Long Island, as shown in Figure 1 and 2 below for year 2010 and 2005 respectively, are represented in percentages by sector. It is clear that the residential sector is still

---

<sup>4</sup> As part of a collective effort with Cameron Engineering & Associates LLP, consulting Climate Smart Communities Program on Long Island region.

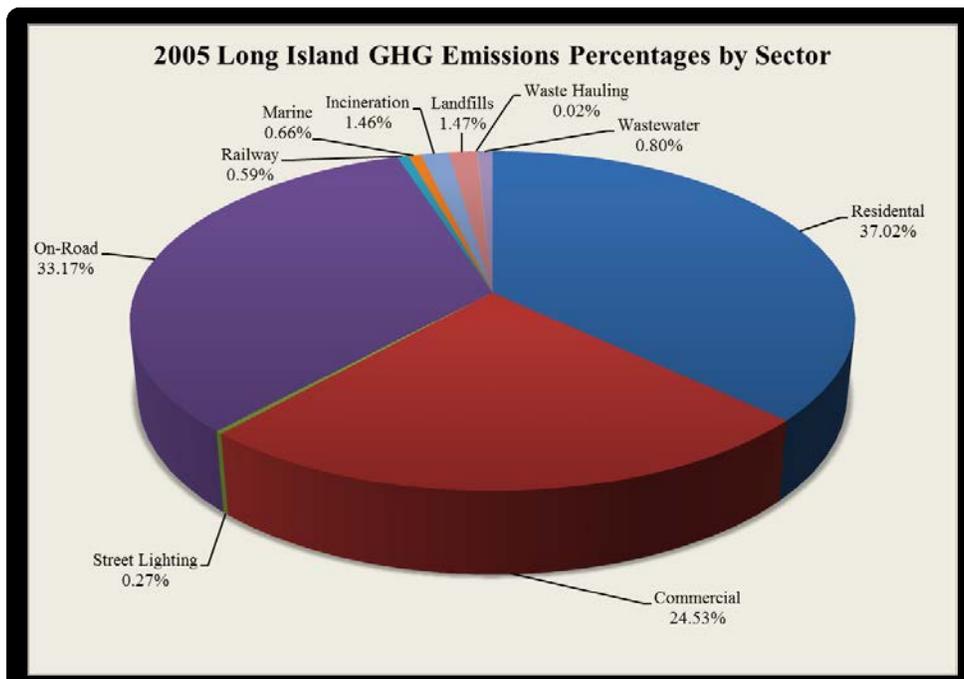
the most prominent and largest sector throughout these two years, followed by on-road transportation and commercial sectors.

**Figure 1: 2010 Long Island GHG Emission Percentages by Sector**



*Source: Calculations completed by New York Institute of Technology*

**Figure 2: 2005 Long Island GHG Emission Percentages by Sector**



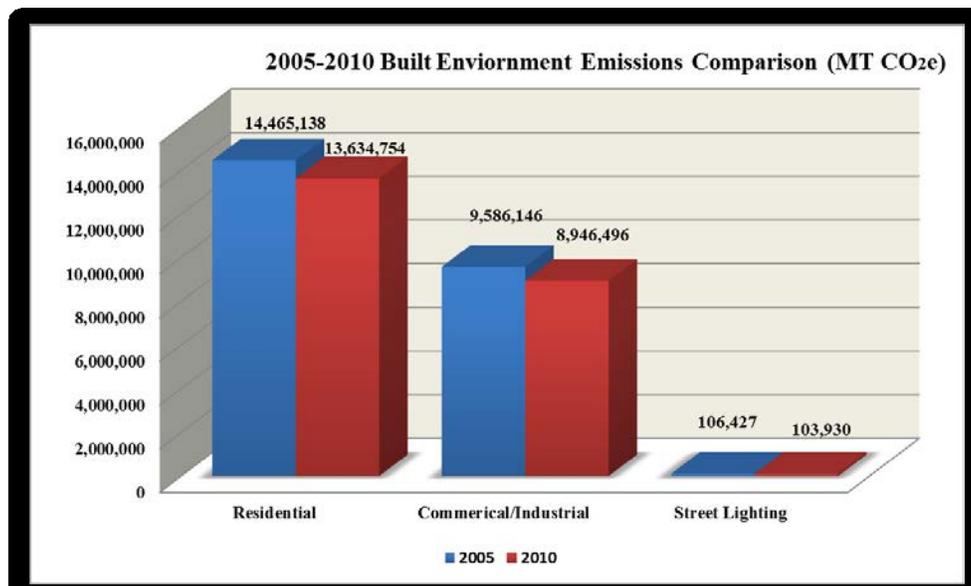
*Source: Calculations completed by New York Institute of Technology*

## 1. Built Environment

The built environment encompasses all human activities which constitutes the major emissions category for this project. This category is comprised of residential energy, commercial/industrial energy and street lighting. In this project, the sources used to generate energy for the built environment on Long Island are electricity, fuel oil and natural gas.

The following graph represents a comparison of 2005-2010 GHG emissions from residential, commercial/industrial and street lighting in the built environment. Residential energy emissions are the largest contributor followed by commercial/industrial and street lighting. These categories are comprised of emissions by the sources mentioned above. As will be presented later in this category, electricity is the biggest contributor in overall GHG emissions. However, on a per capita level, it is important to note that after taking into account the population change, the carbon intensity indicator showed an almost 1% overall emission reduction for each Long Islander in the use of built environment electricity, from 4.3 MT CO<sub>2</sub>e in 2005 to 4.26 MT CO<sub>2</sub>e per person in 2010. This is most likely because of local efforts in retrofitting existing buildings and housing units to be more energy efficient. This includes improvements in HVAC (Heating, Ventilation and Air Conditioning) technology.

Figure 3: 2005-2010 Built Environment Emissions Comparison (MT CO<sub>2</sub>e)



Source: Calculations completed by New York Institute of Technology

As shown in Figure 3, there is an overall drop in GHG emissions in year 2010 when compared to 2005. This drop is due to several reasons, which are unique to each sector and will be explained later.

## *a) Residential Energy*

---

In 2010, Long Island emitted a total of 13,634,754 MT CO<sub>2</sub>e from the residential energy compared to 14,465,138 MT CO<sub>2</sub>e in 2005, resulting in a net decrease of 5.74%. As seen in Figure 1, emissions from residential energy contributed to 38.67% of the total emissions; the largest emission contributor in 2010. The residential data in 2010 includes single-family housings and multi-families as well as apartment buildings and complexes.

In 2010, Long Island consumed a total of 9,805,587<sup>5</sup> MWh<sup>6</sup> of residential electricity compared to 9,637,785 MWh in 2005. This represents an increase of 1.74% in the residential electricity consumption. Consequently, residential electricity emission increased from 5,958,815 MT CO<sub>2</sub>e in 2005 to 6,021,712 MT CO<sub>2</sub>e, by 1.06%. This slight increase is not only due to an increase of population but also from the increasing need for ventilation and air conditioning during the summer months due to a higher average temperature.

In 2010, Long Island consumed a total of 416,867,855 gallons<sup>7</sup> of residential fuel oil compared to 485,535,379 gallons in 2005. This represents a total decrease of 14.14%. Proportionally, GHG emissions for heating oil also decreased by 14.14%, from 4,985,459 MT CO<sub>2</sub>e in 2005 to 4,280,384 MT CO<sub>2</sub>e in 2010. This is not only due to higher cost of oil but better home insulation and furnace technology. Warmer winters also played a role in the decreased demand for home heating oil in 2010.

For residential natural gas in 2010, Long Island consumed a total of 49,766,423<sup>8</sup> MMBtu<sup>9</sup> compared to 52,576,883 MMBtu in 2005. This represents a total consumption decrease of 5.35% between those years while GHG emissions for residential natural gas also decreased by 5.35%, from 3,520,864 MT CO<sub>2</sub>e in 2005 to 3,332,658 MT CO<sub>2</sub>e in 2010.

---

<sup>5</sup> All electricity consumption data provided by Long Island Power Authority (LIPA) for this project.

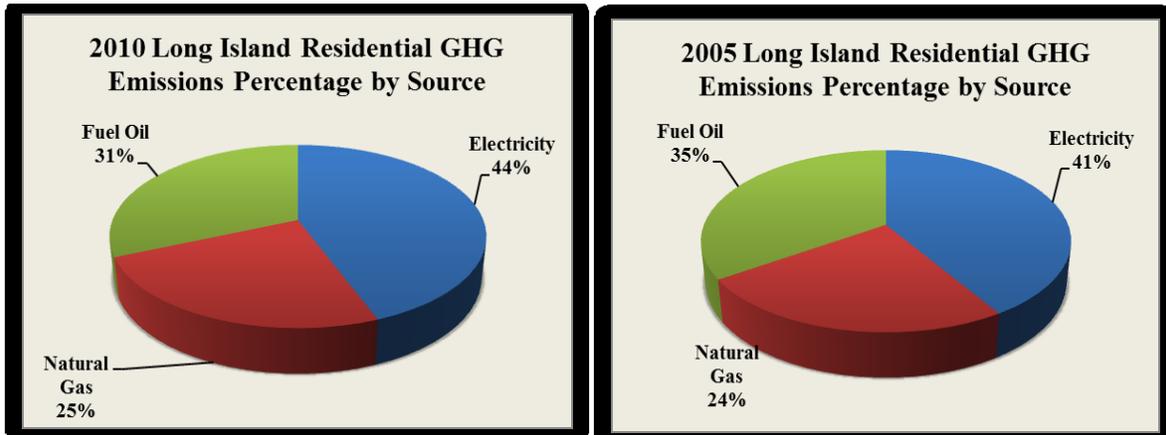
<sup>6</sup> MWh, Mega-watt-hour equals to 1,000 kilowatt-hour (kWh), units of measuring electricity consumption.

<sup>7</sup> 2005 fuel oil data provided by Oil Heat Institute of Long Island (OHILI) and that of 2010 was provided by New York State Tax Department, suggested and facilitated by OHILI, These data were then aggregated into towns and cities on Long Island. See NYIT LICFP methodology for details.

<sup>8</sup> All natural gas consumption data provided by National Grid for this project, and then data were aggregated into towns and cities on Long Island. See NYIT LICFP methodology for details.

<sup>9</sup> 1 MMBtu is a decatherm equals to 10 therm, units of measuring natural gas consumption.

Figure 4: 2005-2010 Long Island Residential GHG Emission Percentages by Source



Source: Calculations completed by New York Institute of Technology

As shown in Figure 4, electricity consumption was the largest residential source of GHG emissions in both years.

### ***b) Commercial/Industrial Energy***

In 2010, Long Island emitted a total of 8,946,496 MT CO<sub>2</sub>e from the commercial/industrial energy sector compared to 9,586,146 MT CO<sub>2</sub>e in 2005. This represents a decrease of 6.67% between the years 2005 to 2010. As seen in Figure 1, emissions from this sector contributed to 25.37% of the total emissions, the third largest contributor in 2010. Similar to the residential sector, this commercial/industrial sector includes the use of electricity, natural gas and fuel oil.

In 2010, Long Island consumed a total of 73,806,432 gallons of fuel oil from commercial/industrial sector compared to 163,276,171 gallons in 2005. This represents a significant drop of 54.8% in 2010 fuel oil consumption compared to 2005. Subsequently, GHG emissions also dropped 54.8% from 1,676,809 MT CO<sub>2</sub>e in 2005 to 758,096 MT CO<sub>2</sub>e in 2010.

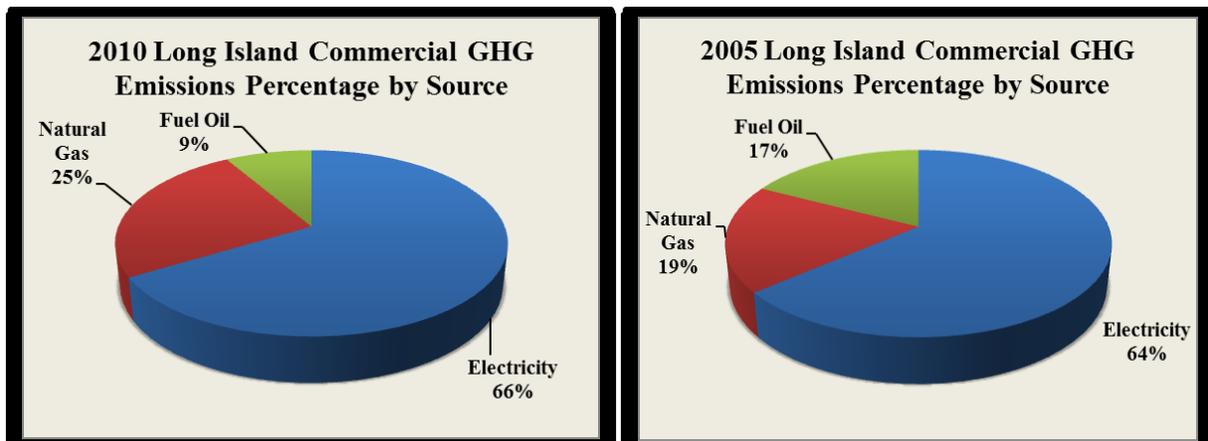
Although NYIT has included commercial fuel oil in the comparisons shown previously in Figures 3 and Figure 5, and there is a clear drop in the respective emissions from 2005 to 2010, NYIT is more confident in the recent data because the data source in 2010 is more reliable from that of 2005<sup>10</sup>. It is advised that future data be collected in the same manner as in 2010 to maintain data consistency and for more accurate comparisons.

In 2010, Long Island consumed a total of 9,676,207 MWh from commercial/industrial electricity compared to that of 9,866,244 MWh in 2005. This represents a decrease of 1.93%. Likewise, GHG emissions decreased by 2.9%, from 6,119,943 MT CO<sub>2</sub>e in 2005 to 5,942,259 MT CO<sub>2</sub>e in 2010.

<sup>10</sup> 2005 fuel oil data provided by Oil Heat Institute of Long Island (OHILI) while that of 2010 was provided by New York State Tax Department, suggested and facilitated by OHILI, These data were then aggregated into towns and cities on Long Island. See NYIT LICFP methodology for details.

In 2010, Long Island consumed a total of 33,541,522 MMBtu of commercial/industrial natural gas compared to that of 26,720,942 MMBtu in 2005. This represents an increase of 25.53%. Subsequently, GHG emissions jumped by 25.53% also with 2,246,142 MT CO<sub>2</sub>e in 2010 and 1,789,395 MT CO<sub>2</sub>e in 2005. This increase of natural gas consumption can be explained by the higher heating oil prices compared to that of natural gas in recent years and increased accessibility to supplying gas. Hence, there was an expansion in switching from fuel oil to gas among businesses and consumers from 2005 to 2010.

Figure 5: 2005-2010 Long Island Commercial/Industrial GHG Emission Percentages by Source



Source: Calculations completed by New York Institute of Technology

As shown in Figure 5 and similar to the residential sector, electricity consumption was still the largest commercial/industrial source of GHG emissions. A 2% increase among fuel sources in 2010. There was a significant expansion of natural gas usage in this sector, increasing by 6% in 2010.

### c) *Street Lighting*

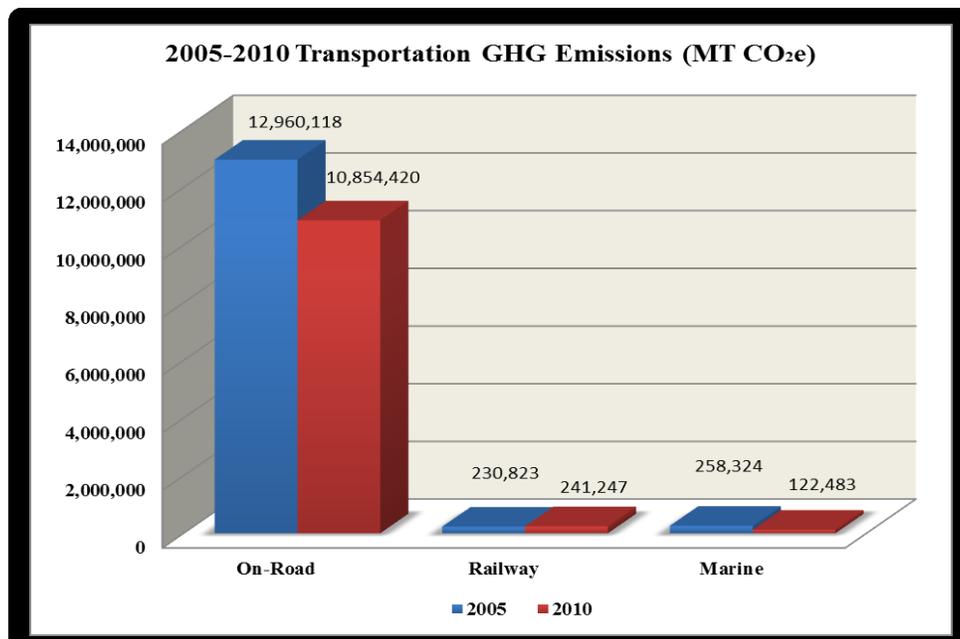
Streetlights are owned and maintained by local governments (town, city or county governments) on Long Island. In 2010, street lighting emitted a total of 103,930 MT CO<sub>2</sub>e compared to that of 106,427 MT CO<sub>2</sub>e, slightly dropped by 2.35%. This only includes emissions from electricity use by streetlights.

The factors that account for this decrease were the implementation of LED streetlights and signal lights. There will be further decreases in the usage as these new-age streetlights are implemented in all towns and cities on Long Island. This sector provides a good basis to measure actual temporal reduction in GHG emissions due to energy efficient technologies. Rather than continuing to install less efficient street lighting, replacement with energy efficient technologies such as LED would reduce energy use and subsequently reduce GHG emissions over time, as seen in the trend of 2005-2010.

## 2. Transportation

Transportation is another major category in measuring regional GHG emissions in addition to the built environment. This category is comprised of on-road transportation, railway, marine, and aviation sectors. There are multiple forms of public transportation on Long Island which are easily accessible to the public. Yet three out of every four Long Island workers drive to work alone; only one in ten take public transit<sup>11</sup>. The average person in Nassau travels 35 miles per day for each vehicle he or she owns, compared to 40 miles per day in Suffolk<sup>11</sup>. Percent change in transit for the LIRR from year 2008 to 2010 was a drop of 1.18%. The Metropolitan Transportation Council (MTA) provided bus service for Nassau County, while Suffolk Transit and Huntington Area Rapid Transit provide bus service in Suffolk County. Long Island has one major interstate highway (I-495) and multiple smaller state highways.

Figure 6: 2005-2010 Transportation GHG Emissions (MT CO<sub>2</sub>e)



Source: Calculations completed by New York Institute of Technology

Figure 6 shows the comparison of 2005 to 2010 emissions in this category, breaking down transportation emissions by sector. On-road transportation emitted the maximum emissions while that of railways and marine are considerably low. These sectors are comprised of emissions from fuel sources such as gasoline, diesel and electricity. Overall emissions have dropped in 2010 compared to 2005 because of several reasons, which are explained later.

### a) On-Road Transportation

For this sector, Vehicle Miles Traveled (VMT) is generally used as the universal unit in measuring the consumption of automobile transportation. The number of miles traveled by cars, trucks

<sup>11</sup> Long Island Index 2009

and other motor vehicles is a major factor in determining the congestion on our roads and highways and by extension, the amount of automobile related GHG emissions. As previously shown in Figure 1, on-road transportation is the second highest sector in the GHG emissions inventory profile and contributed 30.78% of the total emissions on Long Island in 2010.

In 2010, Long Island vehicles produced a total emission of 10,854,420 MT CO<sub>2</sub>e, a reduction of 16.25% compared to 12,960,118 MT CO<sub>2</sub>e in 2005. With that said, all vehicles (cars, trucks and transit buses) traveled 20,544 million miles in 2010<sup>12</sup>, 2.85% more than the 19,974 million miles recorded in 2005. Although Long Islanders have driven slightly more in 2010 compared to 2005 based on VMT data, the total on-road transportation emissions have decreased due to the use of more efficient vehicles, and less polluting fuels because of the implementation of stricter regulations on vehicles' air emissions in the New York Region. It is important to emphasize that the trend of increasing VMT and yet decreasing pollution emissions for on-road vehicles is consistent with similar trends in New York City region<sup>13</sup>, although the percent differences might differ largely based on the fuel economy extracted from different emission software models.<sup>14</sup> It is strongly encouraged to use the 2010 methodology to keep the studies and results consistent and comparable in the future.

For 2010, GHG on-road vehicle emissions, gasoline accounted for 84% of the emissions while the remaining 16% was from diesel fuel. There was a decrease of 21% in gasoline consumption and emission from 2005 to 2010, compared to a 12% increase in diesel consumption and emission at the same time. These emissions are from private passenger cars<sup>15</sup>, transit buses (including school buses), light and heavy trucks.

A breakdown of on-road transportation GHG emissions by vehicle types and by county is shown in Figure 7. It shows that private passenger cars and light trucks (excluding heavy trucks) are the largest emission contributor. Generally, most of these vehicles are owned by households on Long Island for residential/personal use, and most of the residents' travels were also local. Of all the vehicle miles traveled (VMTs) on Long Island, 37% were within Nassau County and 44% were within Suffolk County, which means both the origin and destinations of these trips were within the county boundaries.

---

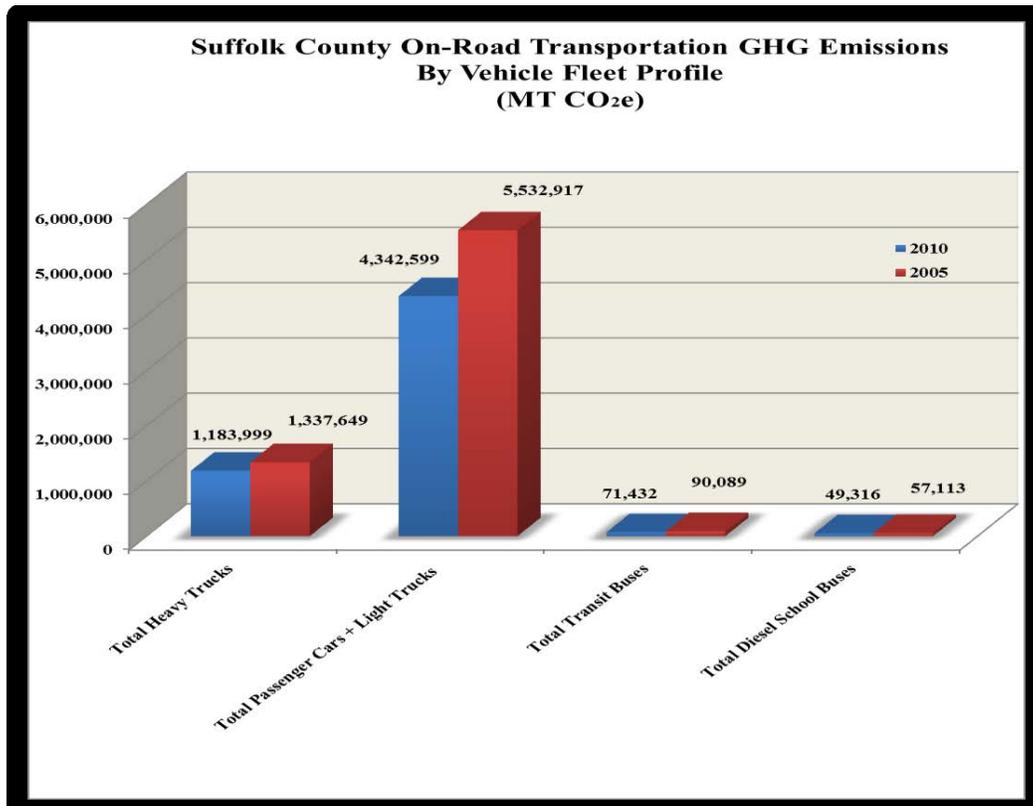
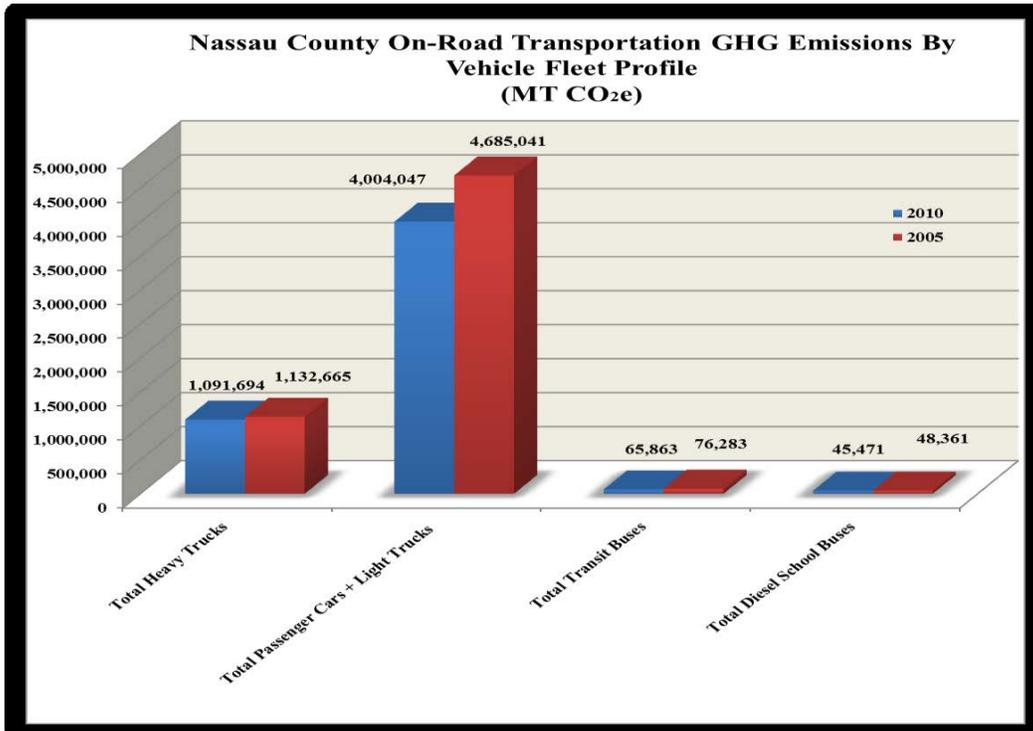
<sup>12</sup> All VMT and county-to-county travel trips data provided by New York Metropolitan Transportation Council (NYMTC) for this project, and then data were aggregated into towns and cities on Long Island. See NYIT LICFP methodology for details.

<sup>13</sup> PlaNYC GHG Inventory 2009, 2010 and 2011.

<sup>14</sup> Refer to NYIT LICFP methodology for more details.

<sup>15</sup> Motorcycles are also included in here.

Figure 7: 2005-2010 On-Road Transportation GHG Emissions by Vehicle Types and County (MT CO<sub>2</sub>e)



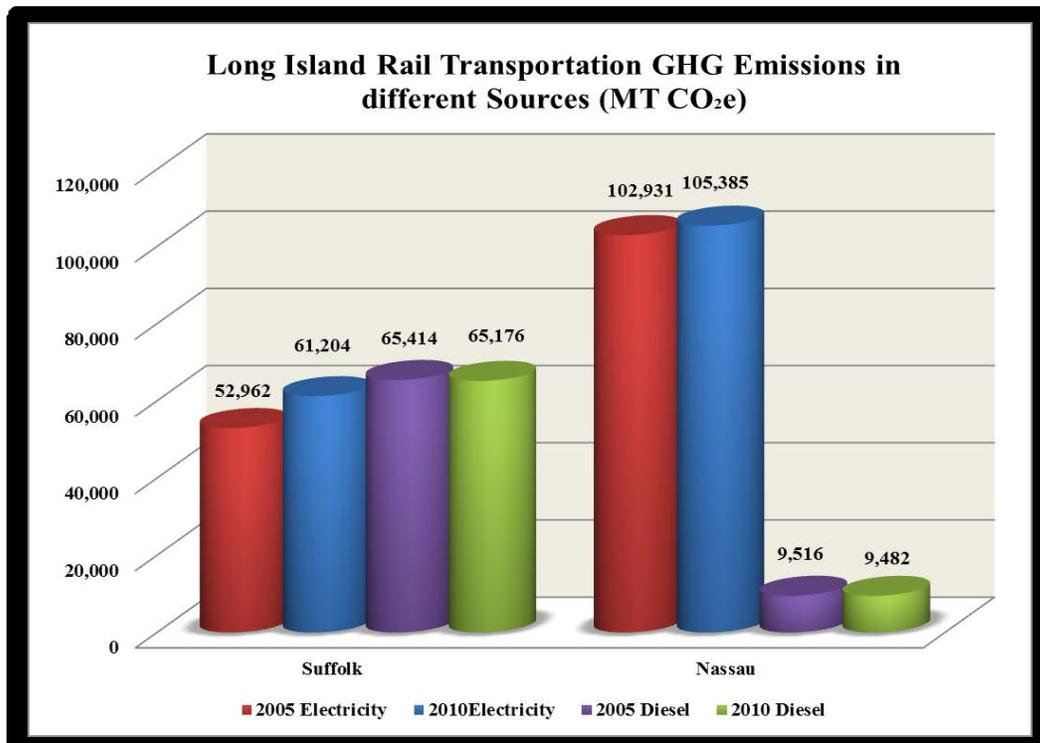
Source: Calculations completed by New York Institute of Technology

**b) Railway**

The Long Island Rail Road (LIRR), a Metropolitan Transportation Authority (MTA) commuter rail service has multiple lines in both Suffolk and Nassau County and provides service to New York City. In 2010, LIRR consumed 271,266 MWh of electricity<sup>16</sup>, a 6.85% increase from 253,853 MWh in 2005. Proportionally, the LIRR electricity emissions were also increased by 6.86% from 155,893 MT CO<sub>2</sub>e in 2005 to 166,589 MT CO<sub>2</sub>e in 2010. On the contrast, LIRR consumed 7,243,128 gallons of diesel in 2010<sup>17</sup>, a 0.36% decrease from the 7,269,512 gallons in 2005. Subsequently, the diesel emissions were also decreased by the same percentage from 74,930 MT CO<sub>2</sub>e in 2005 to 74,658 MT CO<sub>2</sub>e in 2010. It represents that the LIRR is slowly switching its fuel usage from diesel to electricity.

The absolute emissions for LIRR usage of electricity and diesel combined were 241,247 MT CO<sub>2</sub>e, in 2010, an increase of 4.5% compared to 230,823 MT CO<sub>2</sub>e in 2005. For the NYIT LICFP study, methodology has improved for 2010 to allocate electricity and diesel fuel into each town and city on long island, which was not possible previously<sup>18</sup>.

Figure 8: 2005-2010 LIRR GHG Emissions by Different Sources and County (MT CO<sub>2</sub>e)



Source: Calculations completed by New York Institute of Technology

### c) Marine (Recreational Boats Only)

<sup>16</sup> All electricity consumption data provided by Long Island Power Authority (LIPA) for this project, including LIRR per town/city.

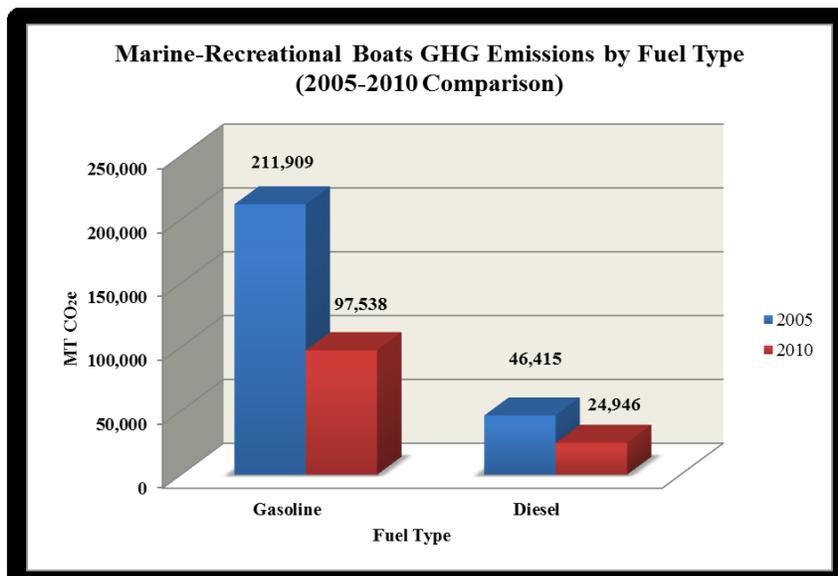
<sup>17</sup> LIRR diesel consumption data provided by LIRR.

<sup>18</sup> Refer to NYIT LICFP methodology for more details.

Long Island is a popular destination for recreational boating. There are more than 600 marinas on Long Island for both residents and tourists. In 2010, there were 93,394<sup>19</sup> boats used on Long Island, which emitted a total of 122,483 MT CO<sub>2</sub>e, a sharp drop of 53% compared to that of 258,324 MT CO<sub>2</sub>e in 2005 with 189,000 recreational boats on Long Island (as shown in Figure 9). It is possible that the recession played a large role, significantly reducing the number of boats between the years.

In 2010, gasoline accounted for 80% of the marine emissions and diesel 20%. In 2010, recreational boats on Long Island used 13,427,185 gallons of fuel with diesel and gasoline combined, compared to 28,416,699 gallons of these fuels. In this study, marine sector is not allocated for each town and city; it is the only sector in the transportation category that is allocated to the entire Long Island region.

Figure 9: 2005-2010 Marine Recreational Boats GHG Emissions by Fuel Type



Source: Calculations were completed by New York Institute of Technology

#### ***d) Aviation***

There are five airports on Long Island: New York John F. Kennedy (JFK) International Airport, New York LaGuardia Airport, Long Island Republic Airport (FRG), Long Island MacArthur Airport (ISP), and East Hampton Airport. The last three are the airports within Nassau and Suffolk county boundaries. At this time, even though a simple methodology<sup>20</sup> has been identified for evaluating the aviation emissions, NYIT decided not to include it in this report. Further re-

<sup>19</sup> Regional number of boats on Long Island provided by Empire State Marine Trades Association

<sup>20</sup> The simplest methodology in GHG inventory is a Tier 1 approach using nationwide statistics. However, since NYIT has been using Tier 2 and 3 approaches for all other sectors, with more complex and detailed local database, further research is required to obtain the appropriate data to keep consistency and integrity of the project.

search is required to obtain the appropriate data to keep the consistency of accuracy and integrity of this project.

### **3. Waste Management**

---

Most human activities involve resource use that produces some by-products called waste over. The integrated process of treatment, disposal, recycling and/or recovery of these wastes are known as waste management. The waste management portion of this project is made up of Municipal Solid Waste (MSW) and Wastewater treatment sectors. The MSW sector of this project is a combination of the emissions from waste incineration and landfill processes while also noting the emission impact of waste hauling outside of the study area<sup>21</sup>. The wastewater treatment sector includes emissions from centralized wastewater treatment plants and decentralized system of septic tanks.

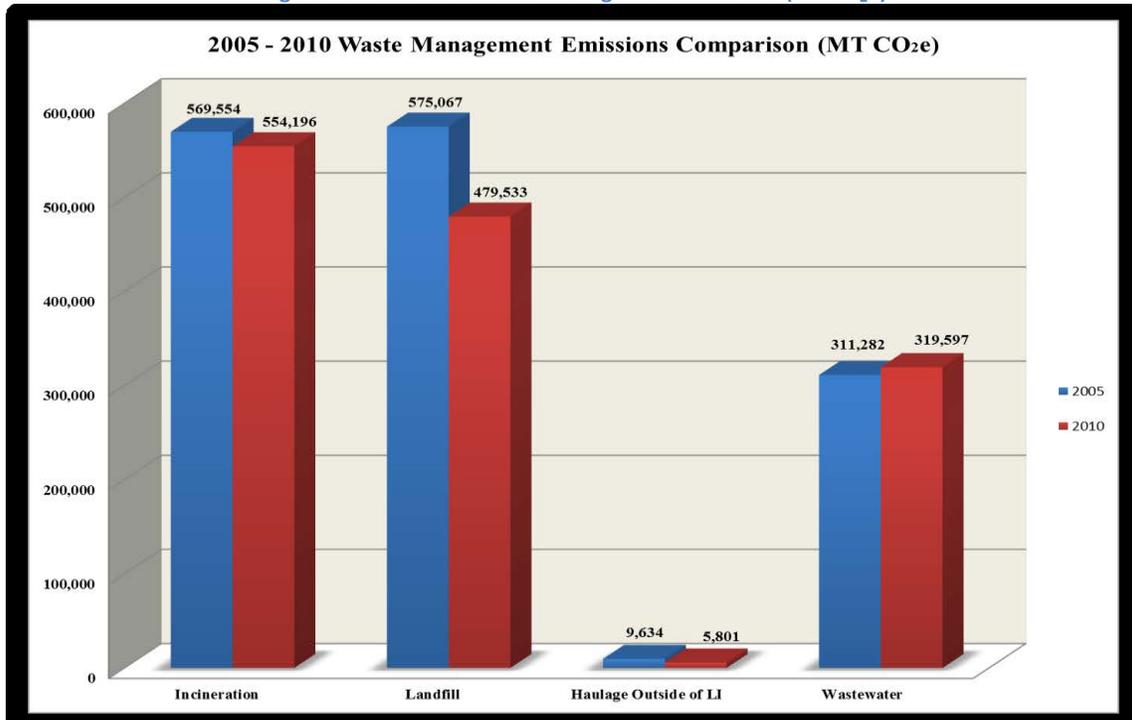
Between 2005 and 2010, there was a 9.69% decrease in total emissions from the MSW sector. Specifically, total fugitive emissions from landfill decay processes decreased by 16.61% while total emissions from incineration processes reduced by 2.7%. Waste hauling off Long Island recorded a decrease of 39.79% in total emissions. The MSW emission per capita for both Nassau and Suffolk counties combined was 0.36 MT CO<sub>2</sub>e per person. The MSW emissions include data from incinerated and landfill disposal methods used on Long Island.

Figure 10 represents 2005-2010 waste management emissions including incineration, landfills, waste hauling and wastewater. Emissions have dropped in 2010 compared to 2005 because of several reasons. Major among the causes of reduced emissions is the reduction in volume of waste disposed, changes in emissions factors and increased waste recovery, recycling and reuse. In essence, improved resource recovery led to reduced waste and by extension, less land filled and incinerated materials, translating into reduced absolute emissions in most cases.

---

<sup>21</sup> For the MSW sector, the most up to date data available for 2010 was actually 2009 figures obtained from the Stony Brooks University (Tonje's) report for year 2009

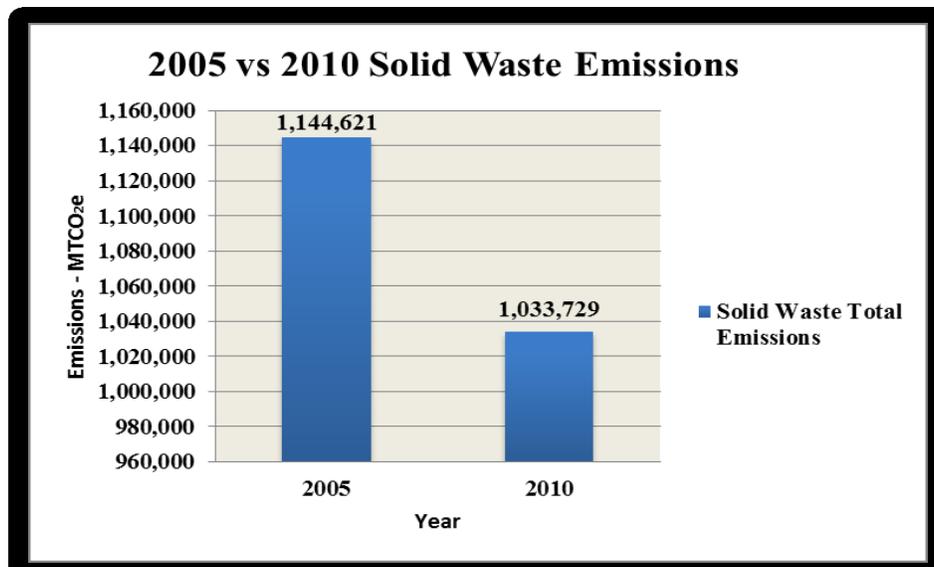
Figure 10: 2005-2010 Waste Management Emissions (MT CO<sub>2</sub>e)



Source: Calculations were completed by New York Institute of Technology

As shown in Figure 11, Long Island emitted 1,033,729 MT CO<sub>2</sub>e from the solid waste sector in 2010 compared to a total of 1,144,621 MT CO<sub>2</sub>e in 2005. This change represents approximately 10% decrease from the 2005 total emissions.

Figure 11: 2005-2010 Waste Management Emissions (MT CO<sub>2</sub>e)



Source: Calculations were completed by New York Institute of Technology

### ***a) Incineration***

---

The total emissions from incinerated waste disposal in 2010 were 554,196 MT CO<sub>2</sub>e compared to 564,554 MT CO<sub>2</sub>e in 2005, representing a 1.83% decrease in 2010 emissions compared to 2005.

### ***b) Landfills***

---

As of February 2012, there were five landfills operating on Long Island, two of which were ash monofills. In 2010, the Long Island Landfills disposed of approximately 1.8 million tons of waste, including 425,000 tons of municipal waste combustor ash to the ash monofills.<sup>22</sup> Each new landfill or expansion located outside the deep flow recharge area can accept material that is the product of resource recovery, incineration, or composting and downtime waste, and untreated waste. The locations for landfills and waste hauling inside Long Island include Yaphank, West Babylon, Hauppauge and Kings Park<sup>23</sup>. Long Island does not have any open landfills receiving municipal solid waste.

In 2010, Long Island emissions from landfills were 479,533 MT CO<sub>2</sub>e; while in 2005 emissions from landfills were 575,067 MT CO<sub>2</sub>e. This represents 16.6% decrease.

### ***c) Waste Hauling Outside Long Island***

---

Non-incinerated waste was transported off Long Island via truck to landfills in New York State, New Jersey, and Pennsylvania. The total MSW transported outside LI in 2010 was estimated to be 385,298 tons<sup>24</sup>. In 2010, the emissions from waste hauling outside Long Island were 5,801 MT CO<sub>2</sub>e including both counties, while 2005 emissions were 9,634 MT CO<sub>2</sub>e. This represents a 39.78% decrease in waste haulage emissions.

### ***d) Wastewater (Sewage) Treatment***

---

Each of us pours or flushes an average 100 gallons of water per day down household drains. This water, plus water discharged to sewers by commercial and industrial enterprises, is called wastewater. In areas serviced by sewers, wastewater flows to a local treatment facility, or sewage treatment plant (STP). Currently 44 such facilities discharge over 1 billion gallons of treated effluent into Long Island Sound every day<sup>25</sup>. The types of wastewater treatment plants on Long Island are lagoons, wastewater treatment plants (WWTP) with and without nitrification, incomplete combustion of digester gas, septic tanks and direct effluent discharge into waterways.

---

<sup>22</sup> <http://www.dec.ny.gov/chemical/23698.html>

<sup>23</sup> Active Long Island Landfills, NYS Department of Environmental Conservation, Division of Material Management Solid Waste Management facilities

<sup>24</sup> Municipal Solid Waste Assessment Nassau and Suffolk Counties, Long Island, New York, 2006 and 2009, by David Tonjes, Stony Brook University

<sup>25</sup> <http://longislandsoundstudy.net/2010/03/wastewater-treatment/>

About 75% of Suffolk county residents use only septic tanks for wastewater treatment, a situation which is not present in Nassau County.

In 2010, Long Island emitted a total of 319,597 MT CO<sub>2</sub>e from the wastewater sector, while in 2005 a total of 311,282 MTCO<sub>2</sub>e were emitted. This includes fugitive emissions from septic systems, treatment lagoons and effluent discharge to waterways and tertiary treatment of wastewater, and the incomplete combustion of digester gas. There was a 2.67% increase in emissions when compared to 2005. The wastewater per capita emissions for 2010 are 0.1129 MT CO<sub>2</sub>e per person compared to 0.1099 MT CO<sub>2</sub>e per person in 2005.

#### **4. Agriculture**

---

According to the 2007 US census of Agriculture, Long Island has 35,692 acres of farmland. Similar data for 2005 was not available. Land cover characteristics of each town/city were identified<sup>26</sup> It was determined that most farmlands and cultivated croplands are located in Suffolk County; predominantly the five east end towns (East Hampton, Riverhead, Shelter Island, Southampton, and Southold).

The agriculture GHG emissions have not been computed for 2010 due to lack of appropriate data. The State Inventory Tool (SIT) Agriculture Module used by ICLEI for 2005 was based on United States Department of Agriculture (USDA)'s 2007 Census of Agriculture, which updates only every five to seven years. The next release of the data for 2012 is not yet available. With that said, SIT is a Tier I approach<sup>20</sup>, which includes animal farms in New York State, but since Long Island does not have animal farms, more local measurement is required for a more robust and in-depth study. The majority of GHG production by agriculture sector on Long Island is the use of fertilizer containing nitrogen. Since Long Island is predominantly crop farming, the amount of fertilizer has not yet been determined. The areas which rely on fertilizers most heavily are crop farming, sod farming (grass), golf courses, and general landscaping.

#### **5. Land Use Change & Forestry**

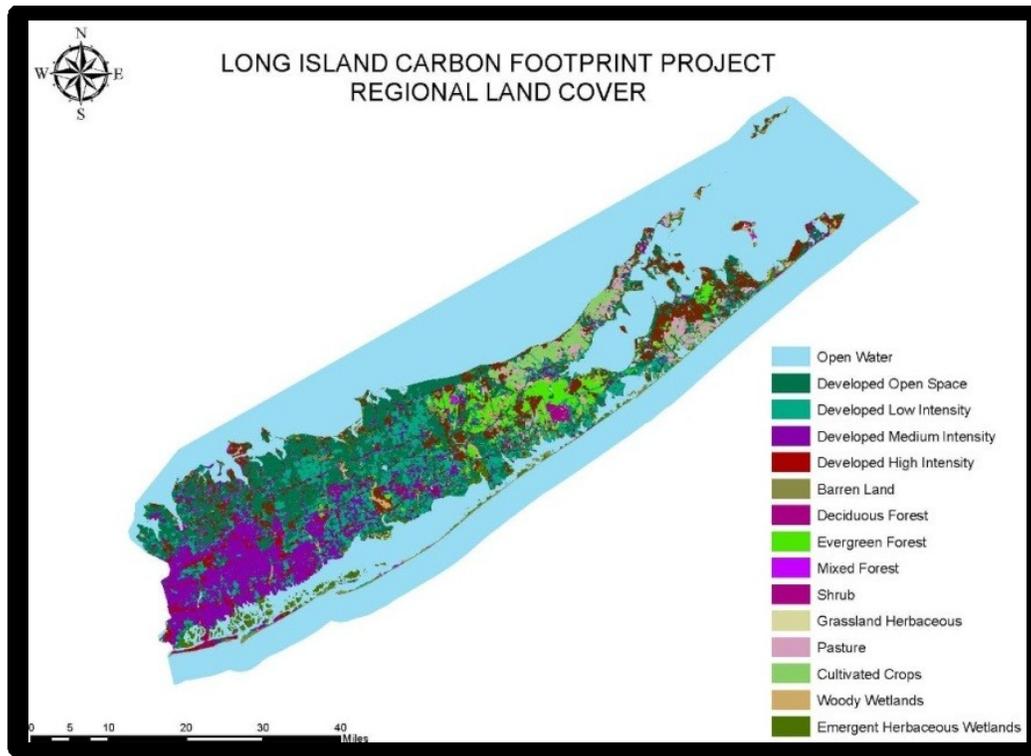
---

As shown Figure 12, the complete Long Island regional land cover<sup>26</sup>, most farmlands and cultivated croplands are grown in Suffolk County, predominantly the five east end towns (East Hampton, Riverhead, Shelter Island, Southampton, and Southold). For the remainder of Long Island, land cover is mostly developed open space and developed medium intensity spaces such as residential and commercial areas.

---

<sup>26</sup> By using ArcGIS 10<sup>®</sup> and data from the National Land Cover Database (NLCD 2006). See NYIT LICFP methodology for more details.

Figure 12: Long Island Regional Land Cover



Source: New York Institute of Technology

Similar to aviation and agriculture sectors, even though a simple methodology<sup>20</sup> has been identified for evaluating the land use change and forestry emissions, NYIT decided not to include it in this report. Further research is required to obtain the appropriate data to keep the consistency of accuracy and integrity of this project. However, using available spatial and attributes data from USGS National Land Cover Database (NLCD 2006), this project has developed a database to produce a land use model consistent with the NLCD land cover classification scheme. Within this framework and continual gathering of additional data, it is anticipated that future versions of this project would be able to develop robust methodologies to quantify emissions from this sector<sup>27</sup>.

## 6. Stationary Energy Generation and Supply<sup>28</sup>

Electricity on Long Island was supplied by Long Island Power Authority (LIPA). In 2010, over half of the electricity generated on Long Island was from natural gas (77.3%), 13% generated from petroleum oil, 5.1% from non-hydro renewable such as waste-to-energy (WTE) and landfill gases (LFG), and the rest from "Purchases Energy"<sup>29</sup> (imported).

<sup>27</sup> <http://www.mrlc.gov/nlcd2006.php>

<sup>28</sup> Due to data unavailability in 2005, this sector was not added into the overall emissions for comparisons, but it served as information item for future comparisons and studies.

<sup>29</sup> <http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html>

In 2010 there were only 25 reported non LIPA stationary energy generation and supply facilities on Long Island<sup>30</sup> because the Mandatory Reporting Rule (MRR) to the Environmental Protection Agency (EPA)'s GHG Reporting Program (GHGRP) was not implemented until after 2010. Among these 25 reported facilities, there were five landfills (LFG), six WTE facilities and 14 electricity generation facilities using natural gas and petroleum oil. The total GHG emissions from all these reported facilities were 7,191,677 MT CO<sub>2</sub>e. It was unclear which facilities were generating utility energy that supplies power to the grid and which ones were commercial or industrial not supplying power to the grid. Hence, to avoid double counting GHG emissions from LIPA and due to lack of data in 2005, this sector is only considered as an information item and is not added to the total Long Island emission. Further research is needed for comparison purposes in the future.

## **7. Transmissions and Distribution (T/D) Losses<sup>28</sup>**

---

### ***a) Electricity T/D Loss***

---

Electric power transmission and distribution losses include losses in transmission between sources of supply and points of distribution, and in the distribution to consumers, including pilferage<sup>31</sup>. The 2010 electricity T/D loss on Long Island was 1,375,572 MWh<sup>32</sup> with an emission of 844,753 MT CO<sub>2</sub>e.

### ***b) Loss and Unaccounted For Gas (LAUF)***

---

Loss and unaccounted for gas (LAUF) is the difference between the amount of natural gas purchased and the quantity of natural gas sold, whether it is more or less, in the form of methane (CH<sub>4</sub>). There are two categories of unaccounted for gas; one is through leaks and the other is through gas measurements. When the gas escapes to the atmosphere at a given rate at an unknown location, it is said to be a "leak". Gas lost through measurements or lack of measurement is a substantial cause of unaccounted gas and it is very difficult to detect. Loss can also occur due to the temperature. In winter, there might be more loss in the volume of the gas compared to summer<sup>33</sup>. The loss and unaccounted for gas in 2010 was 2,340,953 MMBtu<sup>34</sup> with a pure methane emission of 246 MT CO<sub>2</sub>e.

---

<sup>30</sup> Data from U.S. Environmental Protection Agency (EPA) MRR GHGRP database. See NYIT LICFP methodology for details.

<sup>31</sup> <http://data.worldbank.org/indicator/EG.ELC.LOSS.KH>

<sup>32</sup> Calculated from LIPA electricity data with a T/D loss of 7% for year 2010. See NYIT LICFP methodology for details.

<sup>33</sup> Pipeline and Hazardous Materials Safety Administration (PHMSA) [www.phmsa.dot.gov](http://www.phmsa.dot.gov)

<sup>34</sup> Calculated from National Grid natural gas data with a LAUF of 2.81% for year 2010, given by National Grid. See NYIT LICFP methodology for details.

## Conclusions & Recommendations

---

The Long Island Carbon Footprint Project 2005 by ICLEI provided a benchmark against which this project; 2005 – 2010 comparison is measured. Even though the 2005 results were normalized in compliance with improved emission protocols, the importance of that local “watershed effort” in carbon footprint inventory cannot be overemphasized.

- This project, comparing baseline GHG emissions in 2005 to similar values in 2010, has confirmed among other things, positive performance of existing climate protection activities on Long Island.
- At the policy level, this finding also supports the expansion of performing environmental programs while continuing the implementation of more innovative GHG emissions reduction activities in the region.
- One advantage of this regional effort is that it could promote some form of healthy competition in GHG reduction among municipalities on Long Island. A uniform measureable index such as per capital GHG emissions of each municipality is a possibility.
- These projects (2005 and 2010) have identified that some municipalities perform better than other in specific sectors which can provide important lessons for other localities.
- With the 2005 baseline measurements and this 2010 comparison, the basis for setting GHG emissions reduction targets for each municipality, sources and/or sector is on the horizon. Now that a starting point has been established, a per capita, local and regional reduction target can be developed and assessed possibly every few years.
- As in the 2005 report, this study also confirms that additional data are required for more robust emissions quantification. Therefore, it is suggested that an inventory and methodology for obtaining these data should be developed and incorporated into similar future projects.
- In the long run, achievement of climate protection successes comes down to stakeholders; importantly, individual and household practices. Conservation in energy and material resource use inevitably leads to reduced GHG emissions. Therefore, more energy efficient and waste reduction practices in all sectors are very crucial to achieving reduced carbon footprints on Long Island’s environment.

## **Our Associates**

---

We are thankful to our associates from Long Island Power Authority (LIPA), Long Island Rail Road (LIRR), Suffolk County, Nassau County, New York Metropolitan Transportation Council (NYMTC), National grid, NYS department of Taxation, Stony Brook University, United States Department of Agriculture (USDA), Empire State Marine Trades Association (ESMTA), Oil Heat Institute of Long Island, U.S. Forest Service, New York Department of State, Cornell Co-operative Extension, Cameron Engineering, NYSERDA GHG Working Group, Cary Institute, Long Island Regional Planning Council, Sustainability Institute for Molloy College and Renewable Energy Long Island.

For more information about Long Island Carbon Footprint Project visit us at  
<http://iris.nyit.edu/carbonfootprint/index.php>

We especially thank the Rauch Foundation for their generous support throughout the project.



To	Neal Lewis	Page	1
CC	Fran Reid, Greg Banhazi		
Subject	Long Island Cleaner Greener Communities – Greenhouse Gas Inventory Review		
From	Jonathan Thompson, Diane Dale, Brian Goldberg		
Date	March 4, 2013		

## **Introduction**

The New York State Energy Research and Development Agency (NYSERDA) Cleaner Greener Communities (CGC) initiative requires for each regional sustainability plan a Tier II (region specific data) baseline Greenhouse Gas (GHG) emissions inventory that follows a protocol developed specific for the CGC using 2010 emissions data. This protocol allows for comprehensive and comparable emissions results between the NY economic development regions identified under this initiative.

Through concurrent local sustainability initiatives, the Long Island region has prepared Tier II GHG inventories in 2005 and was in the process of updating this inventory with 2010 data. This inventory follows the methodology of ICLEI's Local Government Operations Protocol (LGOP). This protocol has been the industry standard protocol for municipal government emissions inventorying and has often been extrapolated to include community-wide data for whole community GHG emissions inventories.

This memo provides a review of the current inventory, outlining the major gaps between the current 2010 emissions inventory and what is necessary for the NYSERDA CGC baseline emissions inventory. This includes changes in methodology and inclusions of emissions generating activities and sectors that will differ between the LGOP and NYSERDA protocol. The memo also discusses the development of the Business as Usual (BAU) emissions projections for 2020 that the planning team will use to measure emissions reduction strategies against.

## **Current Inventory**

The Long Island regional GHG inventory was originally prepared as part of the Long Island Carbon Footprint Project in 2010 by ICLEI and the New York Institute of Technology (NYIT) using the 2005 calendar year as the inventory baseline. NYIT has been developing an update to this inventory prior to the CGC project initiating. The update is based off of 2010 calendar year activity data. This update will be used as the baseline for the CGC Sustainability Plan and this memo evaluates the overarching gaps between this current inventory and what is necessary for the CGC as defined by the NYSERDA GHG inventory protocol template.

## Activity Data

### Included in 2010 Long Island GHG Inventory

Data were collected and calculated into emissions results for eight sectors with sub-categories shown below for the 2010 Long Island regional GHG inventory update:

1. Electricity Consumption
  - a. Residential
  - b. Commercial
  - c. Streetlights
  - d. Long Island Railroad
  - e. Transmission Losses
2. Natural Gas Consumption
  - a. Residential
  - b. Commercial
  - c. Losses
3. Fuel Oil Consumption
  - a. Residential
  - b. Commercial
4. Solid Waste
  - a. Incinerated
  - b. Landfilled
  - c. Waste Hauling
5. Electricity Generation
  - a. Power plant
  - b. Waste to Energy Facility
6. Transportation
  - a. On Road
  - b. Long Island Rail Road (Diesel)
7. Marine Transportation (recreational)
8. Wastewater Treatment

### Required for NYSERDA CGC 2010 Baseline Inventory

The NYSERDA CGC Inventory requirements include the sectors listed above that have been calculated but also recommend or require the following additional sectors and fuel sources to complete the 2010 baseline inventory:

#### Sectors

1. Agriculture (required)
2. Off road mobile (required)
3. Aviation (optional)
4. Land Use and Forestry (optional)
5. Commercial Marine

#### Fuel Sources

1. Propane (required for residential, commercial, industrial sectors)
2. Distillate fuels #1, #2, Kerosene (required for residential, commercial, industrial, marine sectors)

3. Residual fuel #4 and #6 (required for commercial, industrial, marine and energy generation sectors)
4. Coal (required for commercial, industrial and energy generation sectors)
5. Wood (required for residential, commercial and industrial sectors)
6. Ethanol (optional for transportation sector)

Upon request, data was provided by NYIT for the sectors of Agriculture, Aviation and Land Use and Forestry but these data are not yet calculated into emissions results. These additional sectors as well as those already calculated will need to be calculated, or re-calculated, in accordance with the methodological requirements of the NYSERDA protocol. This is discussed in the next section.

## **Emissions Calculations**

### **Methodology for 2010 Long Island GHG Inventory**

The current inventory follows the methodology of the LGOP. This methodology has been an industry standard for emissions inventory for municipal agencies and has often been applied community-wide to create whole community emissions inventory. These calculations are generally in accordance with those proposed by the NYSERDA protocol however, the emissions factors may differ for certain fuels. The LGOP has typically cited the Environmental Protection Agency (EPA) Climate Leaders guidance for emissions factors for individual fuels. The NYSERDA protocol requires that each region use emissions factors that derive mainly from the EPA's Mandatory Reporting Rule (MRR) tables C-1 and C-2<sup>1</sup>.

## **Emission Reporting**

### **NYSERDA reporting format**

Final emissions reports should be presented in a standard format across all the NY Regions. NYSERDA has provided a template for each region to follow that lists the required reporting sources and sectors<sup>2</sup>. Emission scopes (direct emissions, indirect emissions from energy consumption, other indirect emissions such as fugitive landfill emissions) to report are identified as well as which scopes to roll up for grand totals.

## **Completing the Inventory**

The above sections list the gaps that exist between the current GHG inventory and what is necessary to complete the NYSERDA CGC inventory. Following the requirements listed above and filling in the gaps identified between the current inventory and that required of NYSERDA will bring the current Long Island GHG inventory into the necessary format and methodology required of the NYSERDA program, qualifying the Long Island region for the next steps of the CGC program.

---

<sup>1</sup> [http://www.epa.gov/ghgreporting/documents/pdf/archived/RULE\\_E9-5711.pdf](http://www.epa.gov/ghgreporting/documents/pdf/archived/RULE_E9-5711.pdf)

<sup>2</sup> [http://sustainableny.wiggiosites.com/yui/folder/stream\\_file.php?doc\\_key=L9ulzbY8SluQ+jnCJaZsDeae68B43Ah9DpASMe1UhxQ=](http://sustainableny.wiggiosites.com/yui/folder/stream_file.php?doc_key=L9ulzbY8SluQ+jnCJaZsDeae68B43Ah9DpASMe1UhxQ=)

## 2020 Greenhouse Gas Emissions Projections

### Introduction

In order to provide meaningful metrics that a sustainability plan can use to evaluate strategies for emissions reduction, the 2010 baseline emissions inventory results were extrapolated to an emissions projection for the year 2020 under a Business as Usual (BAU) growth pattern. The 2020 BAU emissions projections would represent the emissions output if current sectoral growth (population, economy, transportation trends) continued at the current estimated growth rates with no intervention.

### Methodology

To produce the 2020 GHG emissions projections, forecasted growth rates to 2020 were needed to apply to the current 2010 GHG inventory. These growth rates are typically developed and maintained by a local or regional economic development council for many cities regions. For the Long Island region, growth rate data was found from the following sources:

- The New York Metropolitan Transportation Council (NYMTC) 2035 Regional Transportation Plan
- Long Island Power Authority (LIPA) Electric Resources Plan 2010-2020

From these data sources, individual growth rates were extracted and applied to the current Long Island GHG inventory results where appropriate. The growth parameters, data sources and growth rates used are shown in Table 1.

**Table 1 – 2020 BAU GHG Emissions Projection Rates**

Long Island 2010 GHG Inventory Emissions Sources (total of data provided by NYIT)	Growth Parameter	Data Source	2020 Growth %	
			Nassau	Suffolk
<b>Electricity Consumption</b>		<b>LIPA</b>	<b>13.37%</b>	
Residential	Household growth %	NYMTC	0.66%	6.10%
Commercial	Employment growth %	NYMTC	2.88%	8.17%
Streetlight	Household growth %	NYMTC	0.66%	6.10%
LIRR	Rail Transit %	NYMTC	11.41%	15.76%
Trans Losses	% of sales	Current loss rate	13.37%	13.37%
<b>Natural Gas Consumption</b>				
Residential	Household growth %	NYMTC	0.66%	6.10%
Commercial	Employment growth %	NYMTC	2.88%	8.17%
Losses	No change	Current loss rate		
<b>Fuel Oil Consumption</b>				
Residential	Household growth %	NYMTC	0.66%	6.10%
Commercial	Employment growth %	NYMTC	2.88%	8.17%
<b>Solid Waste</b>				
Incinerated	Population growth %	NYMTC	1.35%	4.84%
Landfilled	Population growth %	NYMTC	1.35%	4.84%
Waste hauling	Population growth %	NYMTC	1.35%	4.84%

<b>Energy Generation</b>				
Power Plant (see note 1)	Population growth %	NYMTC	1.35%	4.84%
WTE (see note 2)	Population growth %	NYMTC	1.35%	4.84%
<b>Transportation</b>				
On Road	VMT Increase %	NYMTC	4.25%	6.93%
LIRR (Diesel)	Rail Transit %	NYMTC	11.41%	15.76%
<b>Marine</b>	<b>Employment growth %</b>	<b>NYMTC</b>	<b>2.88%</b>	<b>8.17%</b>
<b>Wastewater</b>	<b>Population growth %</b>	<b>NYMTC</b>	<b>1.35%</b>	<b>4.84%</b>

\* Notes 1 & 2 - emissions from energy generation at power plants and waste to energy facilities were not rolled up into the total projections for 2020 because this data is double counting for electrical energy consumed.

Because the NYMTC model is regionally projected and not developed specifically for Long Island, LIPA growth rates for electricity consumption were used as the overall growth for electricity consumption. LIPA however, did not provide a breakdown of consumption growth for sub-sectors of electricity consumption such as residential, commercial and rail transit. NYMTC did provide these individual sub-sector rates and these individual rates were adjusted so that the total NYMTC growth would match the overall growth rate provided by LIPA. Prior to adjusting these subsector rates, the actual difference between the LIPA and NYMTC modeled projections for electricity consumption was less than 1% of overall consumption.

## Results

Applying these rates to the current GHG inventory data provided by NYIT created projections for each sector for which emissions results were available. The results of the projection are provided in table 2 below.

**Table 2 – 2020 BAU GHG Emissions Projection Results**

Long Island 2010 GHG Inventory Emissions Sources (total of data provided by NYIT)	2010 Emissions Reported (Tons CO2e)		2020 Projected Emissions (Tons CO2e)		
	Nassau	Suffolk	Nassau	Suffolk	TOTAL LONG ISLAND
<b>Electricity Consumption</b>	<b>5,898,914</b>	<b>7,180,329</b>	<b>6,516,316.26</b>	<b>8,311,004.48</b>	<b>14,827,320.74</b>
Residential	2,671,034	3,350,678	2,892,378.13	3,824,634.15	6,717,012.29
Commercial	2,693,604	3,248,655	2,981,378.67	3,780,443.91	6,761,822.58
Streetlight	49,875	54,055	54,008.06	61,701.12	115,709.18
LIRR	105,385	61,204	126,308.16	76,218.19	202,526.35
Trans Losses	379,016	465,737	462,243.24	568,007.10	1,030,250.35
<b>Natural Gas Consumption</b>	<b>3,136,812</b>	<b>2,442,234</b>	<b>3,183,071.01</b>	<b>2,613,884.51</b>	<b>5,796,955.52</b>
Residential	1,984,908	1,347,750	1,997,943.44	1,429,991.75	3,427,935.18
Commercial	1,151,765	1,094,376	1,184,989.37	1,183,785.17	2,368,774.54
Losses	138	108	138.20	107.60	245.80
<b>Fuel Oil Consumption</b>	<b>2,231,403</b>	<b>2,807,077</b>	<b>2,255,940.78</b>	<b>2,984,870.26</b>	<b>5,240,811.04</b>
Residential	1,787,755	2,492,628	1,799,495.24	2,644,732.31	4,444,227.55

Commercial	443,648	314,448	456,445.54	340,137.95	796,583.49
<b>Solid Waste</b>	<b>653,801</b>	<b>385,730</b>	<b>658,056.86</b>	<b>403,058.45</b>	<b>1,061,115.31</b>
Incinerated	224,472	329,724	227,504.27	345,689.86	573,194.13
Landfilled	424,814	54,719	430,552.59	57,368.60	487,921.18
Waste hauling	4,515	1,287	4,575.99	1,349.32	5,925.31
<b>Energy Generation</b>	<b>1,820,598</b>	<b>5,371,079</b>	<b>2,012,158.55</b>	<b>6,140,706.38</b>	<b>8,152,864.93</b>
Power Plant	1,343,269	4,829,846	1,484,605.24	5,521,920.05	7,006,525.28
WTE	477,329	541,233	527,553.32	618,786.33	1,146,339.64
<b>Transportation</b>	<b>5,216,557</b>	<b>5,712,522</b>	<b>5,439,181.02</b>	<b>6,113,989.14</b>	<b>11,553,170.16</b>
On Road	5,207,075	5,647,346	5,428,617.23	6,038,543.60	11,467,160.83
LIRR (Diesel)	9,482	65,176	10,563.79	75,445.54	86,009.32
<b>Marine</b>	<b>122,483</b>		<b>58,828.32</b>	<b>70,639.32</b>	<b>129,467.64</b>
<b>Wastewater</b>	<b>13,893</b>	<b>305,704</b>	<b>14,080.67</b>	<b>320,506.76</b>	<b>334,587.43</b>

\*Note – as stated earlier, energy generation was not rolled up into the total emissions results as this would be double counting for emissions associated with electricity consumed.



# Compendium of Projects, Programs and Policies

## LI advancing clean energy

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS & SCOPE	FUNDING
<b>1. Plans &amp; Inventories</b>	Clean Energy Action Plan	Babylon, Brookhaven, East Hampton, Huntington, Nassau, Oyster Bay, Riverhead, Southampton, Suffolk	Formally adopted resolutions that set goals and strategies for advancing clean energy. Clean Energy Action Plans serve as individualized road maps for municipalities in implementing cleaner energy choices	Plans adopted beginning in 2005. May not have been updated.	
	Climate Action Plan	East Hampton	Developing a carbon footprint monitoring plan in order to implement the Town's Climate Action Plan.		
	Government Facility Energy Policy	North Hempstead	Townwide policy with goal of reducing the town's GHG emissions, energy consumption & costs.		
	Energy and Sustainability Master Plan	Hempstead	The Town is developing an Energy and Sustainability Master Plan (ESMP)		ARRA
	Efficiency Long Island	LIPA Service Territory*	LIPA began implementing ELI in 2009, embarking on the next generation of energy efficiency strategies. ELI is a 10-year, \$924 million energy efficiency program that makes a wide array of incentives, rebates and programs available to LIPA's residential and commercial customers to assist them in reducing their energy usage and thereby lowering their bills. The ELI program seeks to attain 1,660 GWh of energy savings and achieve a peak electric demand reduction of 520 MW by year-end 2018.		LIPA
	LIPA Electric Resource Plan 2010 - 2020	LIPA Service Territory*	The 2010-2020 Electric Resource Plan provides the analytical support and policy framework necessary to enable LIPA to continue providing safe, reliable electricity service to its customers at stable costs. The Plan expands clean energy and environmental initiatives currently underway and supports investment in new technologies to maintain continued high levels of system reliability and customer service.		LIPA
	Long Island Carbon Footprint Project	All Long Island Communities	ICLEI baseline greenhouse gas inventory for the year of 2005, completed in 2010.		Rauch Foundation
	Long Island GHG Inventory	All Long Island Communities	NYIT baseline GHG inventory for the year 2009 underway, to be completed Dec. 2012.		Rauch Foundation
	Babylon GHG Inventory	Babylon	Conducted in 2006, using ICLEI protocol		
	Long Island Clean Electricity Vision	All Long Island Communities	Study by Renewable Energy Long Island demonstrating feasibility of 100% renewable electricity for Long Island by 2030.		
Draft Master Plan	Huntington				
Green Building Database	All Long Island Communities	Renewable Energy Long Island database of 4,300 energy efficient buildings on L.I.			
<b>2. Pledges, Associations</b>	LI Clean Energy Leadership Task Force	Babylon, Brookhaven, Hempstead, Huntington, Islip, North Hempstead, Oyster Bay, Riverhead, Southampton, Smithtown, Nassau & Suffolk	The Clean Energy Leadership Task Force strives to help local governments lead by example and act as role models to the general public by demonstrating that technologies are available now to achieve energy efficiency goals for both buildings and vehicles.	Voluntary	Molloy College
	Climate Smart Communities	Babylon, Brookhaven, Huntington, Islip, North Hempstead, Smithtown, Villages of East Rockaway, Port Jefferson, Woodsburgh	Climate Smart Communities is an unprecedented state-local partnership to reduce greenhouse gas emissions, save taxpayer dollars and advance community goals for health and safety, economic vitality, energy independence and quality of life. Program of DEC, NYSERDA, Dept of State, Dept of Transportation, PSC	Voluntary. Pledge must be adopted by resolution of legislative body	CSC Coordinator funded by RGI through NYSERDA
	Greater Long Island Clean Cities Coalition	Suffolk County, Babylon, Brookhaven, Hempstead, Huntington, Smithtown	Supports local decisions to reduce petroleum consumption in the transportation sector through the use of alternative fuels, advanced technology vehicles, and fuel economy measures	Voluntary. Participating communities sign Stakeholder MOU	DOTCMAC, NBB, NEVC, NYSERDA,
	Cool Cities	Babylon, Brookhaven, East Hampton, Hempstead, Huntington, Islip, Oyster Bay, Riverhead, Southampton, Villages of Northport, Rockville Centre, Nassau & Suffolk	Collaboration between community members, organizations, businesses, and local leaders to implement clean energy solutions that save money, create jobs, and help curb global warming. Since 2005, over 1000 city and county leaders have made a commitment to cut their community's carbon footprint.	Voluntary	
	U.S. Conf. of Mayors Climate Protection Agreement	Babylon, Brookhaven, Hempstead, Southold, Glen Cove, Villages of Quogue, Rockville Centre, Southampton	Participating cities commit to strive to meet or beat the Kyoto Protocol targets and urge their state governments, and the federal government, to enact policies and programs to meet GHG emission reduction of 7% reduction from 1990 levels.	Voluntary	
	USGBC	Suffolk County	Suffolk County is a member of USGBC	Voluntary	
<b>3. Energy Conservation Building Codes:</b>	Residential ENERGY STAR® Homes code	Babylon, Brookhaven, Hempstead, Huntington, Islip, North Hempstead, Oyster Bay, Riverhead, Southampton	New York State law allows municipalities to adopt energy efficiency construction codes that are more stringent than the State code. 10 of 13 Long Island Towns adopted requirement for new homes to meet Energy Star Homes standards. Southampton adopted a tiered system, which requires larger homes to achieve greater efficiency.	Mandatory. New construction only	
	Residential HERS Rating requirement	Babylon, Brookhaven, Hempstead, Huntington, Islip	Replaces the Energy Star Homes standard. New homes must receive a 70 or less on the HERS Index, in Islip 65 or less, by certified Home Energy Rating System (HERS) rater.	Mandatory. New construction only.	
	Commercial Building Standards	Islip	Any new commercial building is required to be 20% more energy efficient than NYS Energy Code requires. (As shown by COMcheck)	Mandatory. New construction only	
	Commercial LEED Requirement	Babylon, Huntington	Commercial buildings over 4,000 sq. ft. area must meet LEED certification standards.	Mandatory. Only new construction of larger buildings.	
	Commercial LEED Requirement	Brookhaven	Commercial buildings over 25,000 sq. ft. area must meet LEED certification standards.	Mandatory. Only new construction of larger buildings.	
	Commercial LEED Incentives	Brookhaven	Incentives allowing increased Floor Area Ratio for LEED commercial buildings	Voluntary	
	Commercial LEED Incentives	Southampton	Max GFA or height of a building in Airport Planned Development District may be increased up to 25% if the building is built to LEED Standard	Voluntary	
	ICC Green Code	New York State	State Fire Prevention and Building Code Council is considering incorporating the Green Code into the NY State Code, or allowing municipalities to adopt it optionally.		
	Dark Skies outdoor lighting standard	Brookhaven, Southampton, Riverhead, E. Hampton, Southold, Vill. of E. Hampton, Huntington	Outdoor lighting ordinance intended to reduce light pollution, which also promotes lighting energy efficiency.	Mandatory	
	Swimming pool efficiency regulations	Southampton	Energy efficient mandate for new pools and replacement equipment	Mandatory	
<b>4. Energy Efficiency: Government Facilities</b>	<b>a. Infrastructure Projects - Municipal facility audits, retrofits and upgrades</b>				
	Audit/Retrofit	Brookhaven	Energy audit and ongoing upgrades of Town Hall, audits of other Town facilities		Brookhaven/ARRA/LIPA
	Audit/Retrofit	Hempstead	Energy audits and retrofits of Town facilities		Hempstead/ARRA/LIPA
	Retrofit	East Hampton	Plan to upgrade heating/cooling systems, lighting, and insulation in 2011		E. Hampton/LIPA
	Retrofit	Hempstead	Building retrofits: heating/cooling systems, windows, lighting, insulation		Hempstead/ARRA/LIPA
	Retrofit	North Hempstead	Preliminary approval for and work begun on retrofit of lighting in 8 major facilities. Plan to upgrade every building within next year.		North Hempstead/LIPA
	Retrofit	Huntington, Islip, Smithtown	Upgrade of street lighting		
	Retrofit	Smithtown	Retrofits to several municipal buildings		Smithtown/LIPA
	Retrofit	Huntington	Upgrade heating/cooling systems and lighting in Town Hall. Obtained EPA's Energy Star Label Rating for Town Hall in 2010		Huntington/ARRA/LIPA
	Retrofit	Huntington	Building Management System for Town Hall		Huntington/LIPA
	Retrofits	Huntington	Aggressively pursuing measures in lighting and HVAC throughout the Town's other facilities		Huntington/LIPA
	Retrofits/upgrades	Islip	Installed cool roof at one MacArthur Airport building, planning lighting retrofits at four others. NYPA is nearing building efficiency component of its project.		Islip/LIPA

4. Energy Efficiency: Government Facilities	Retrofit	Babylon	Municipal building retrofits: heating/cooling systems, windows, lighting, insulation		Babylon/LIPA
	Audits/upgrades	Riverhead	Major upgrade of sewage treatment plant. Considering energy assessments for Town Hall, police building and senior citizens center.		Riverhead/ LIPA
	Retrofits	Southold	Implementing lighting retrofit project at senior citizens center and considering projects at other Town facilities		Southold/ LIPA
	Retrofit	Southampton	New heating/lighting systems for Town Hall and several other municipal buildings		S'hampton LIPA
	Upgrade	Glen Cove	Upgraded parking garage lighting		Glen Cove/LIPA
	Retrofits/upgrades	Long Beach	NYP&A will implement complete overhaul of lighting fixtures and controls at City Hall and Ice Arena and installation of variable speed drives at wastewater treatment plant in 2013		Long Beach/LIPA
	Retrofit	Suffolk	H. Lee Dennison, Medical Examiners and Riverhead County Complex, Griffing Avenue Courts Building, Scully Estates, Bergan Point Waste Water Treatment Plant. Continuing measures include extensive lighting retrofits, chiller plant optimization, building management systems		Suffolk/LIPA
	Retrofit	Nassau	Upgrading lighting at the jail		Nassau/LIPA
	New construction	North Hempstead	Pursuing LEED certification for New Cassel Community Center		North Hempstead/ LIPA
	New construction	Babylon	Wyandanch Rising to include a municipal building		Babylon/LIPA
	New construction	Brookhaven	Parks Administration building LEED certified		Brookhaven/LIP A
	New construction	Huntington	Pursuing LEED Certification for new Business Incubator		Huntington CDA
	New construction	Suffolk County	Suffolk Police Fourth Precinct building LEED certified.		Suffolk/LIPA
<b>b. Policies for Government Operations</b>					
Energy Star Procurement Policy	Brookhaven, Babylon	Energy Star office equipment purchasing policy			
LEED adoption	Brookhaven	LEED standards for municipal buildings			
Green/White Roofs	Suffolk County	Executive order directing evaluation of cool and/or green roof technologies for new and renovated flat roofs on county buildings.			
LEED/energy efficiency standards	Nassau & Suffolk Counties	LEED standards for new municipal buildings and renovations. Suffolk requires LEED principles for construction and renovation over \$1 million, and for planning of projects "built to suit" for long term lease by the County		Nassau policy provides guidelines, not strict requirements	
5. Energy Efficiency: Community	<b>a. Programs</b>				
	Long Island Green Homes Consortium	Babylon, Brookhaven, Huntington, Islip, North Hempstead, Smithtown, Southampton, LIPA	Cooperative effort to promote energy audits and home efficiency improvements through NYSERDA and LIPA programs.	Voluntary	ARRA grant through NYSERDA
	On-Bill Recovery Financing	LIPA Service Territory*	Financing for home energy efficiency improvements through NYSERDA, repaid through line item on LIPA bill. Reduced interest, transferable in event of home sale.	Voluntary	NYSERDA, LIPA
	Long Island Green Homes benefit assessment financing	Babylon	Low interest benefits assessment financing for home energy upgrades.	Voluntary	Babylon - revolving loan fund
	EECO Homes program	Huntington	No-cost Home Energy Efficiency evaluation is conducted and survey assessment results and recommendations are provided to the homeowner	Voluntary	EECBG
	Attainable Long Island Design Competition	Babylon	Competition created with the USGBC as a way to motivate and recognize architects who design energy efficient and reasonably priced homes.	Voluntary	
	Efficient Products Program	LIPA Service Territory*	LIPA is a sponsor of ENERGY STAR® and encourages customers to buy appliances and lighting products that have earned the ENERGY STAR label. Rebates and incentives are available on products like refrigerators, dehumidifiers, room air conditioners, pool pumps and lighting.	Voluntary	LIPA
	ENERGY STAR Labeled Homes (LIPA and NYSERDA)	LIPA Service Territory*	LIPA's ENERGY STAR® Labeled Homes offers incentives to builders who build homes that meet or exceed the current ENERGY STAR standards set by the Environmental Protection Agency. These homes are constructed adhering to strict standards for energy efficiency and use significantly less energy than a conventional home. ENERGY STAR homes also have fewer drafts and better ventilation, making a more comfortable, healthy environment for new home owners.	Voluntary	LIPA, NYSERDA
	Home Performance with ENERGY STAR® Program and Home Performance Direct (NYSERDA and LIPA)	All Long Island Communities	Market rate program. Serving 1 to 4 family homes. Free or reduced cost audits. LIPA provides free CFLs and air and duct sealing to central a/c customers through Home Performance Direct Program. Typically air and duct sealing, insulation, weather-stripping, heat and hot water system upgrades, health and safety measures. Additional measures may be available. Installed by NYSERDA and LIPA Participating Contractors. LIPA program focused on residences with central air conditioning units, includes additional electric measures. Low cost financing through NYSERDA's Green Jobs/ Green New York loan fund.	Voluntary	LIPA, NYSERDA Green Jobs/ Green New York loan fund (RGGL)
	Assisted Home Performance with ENERGY STAR® (NYSERDA and LIPA)	All Long Island Communities	Program for households at or below 80% of Nassau / Suffolk Area Median Income. Free audit. 50% subsidy on installation of eligible energy efficiency measures up to \$5,000 for a single family house and up to \$10,000 for a 2-4 unit house. May be eligible for up to \$1,500 in additional LIPA rebates. Low cost financing through NYSERDA's Green Jobs/Green New York Loan Fund.	Voluntary	LIPA, NYSERDA Green Jobs/ Green New York loan fund (RGGL)
	Residential Energy Affordability Partnership (REAP)	LIPA Service Territory*	Free energy survey for customers who meet income eligibility requirements at or below 70% local median income. Includes free CFLs and replacement of inefficient refrigerators, air sealing and duct sealing, combustion safety testing and customer education.	Voluntary	LIPA
	Empower (NYSERDA)	New York State	Free energy survey serving renters/owners in buildings under 100 units. Households qualify if eligible for HEAP or participate in a utility assistance program or household income is below 60% of State median. Non-electric measures - air sealing and insulation and customer education are provided.	Voluntary	NYSERDA/ LIPA
	Weatherization Assistance Program	All Long Island Communities	Installation of energy efficiency measures in single family homes, condos/coops, mobile homes. Multi-family buildings (with owner participation). This is a grant program for owners and renters at or below 60% of New York State Median Income. Typically air and duct sealing, insulation, weather-stripping, health and safety measures.	Voluntary	NY State Homes & Community Renewal
	LIPA Small Business Direct Install	LIPA Service Territory*	Small businesses in areas targeted by LIPA, where projected load growth would overtax existing grid, receive lighting upgrades. LIPA covers 70% of cost.	Voluntary. Restricted to limited areas (includes all of south fork)	LIPA
	LIPA's Cool Homes Program and A/C Early Retirement	LIPA Service Territory*	The Cool Homes program provides incentives to LIPA Cool Homes contractors as well as rebates to LIPA residential customers for the purchase of new, energy efficient central a/c systems, ductless mini splits, heat pumps or geothermal installations. LIPA provides enhanced rebates to customers who choose LIPA's Early Retirement program, replacing less efficient, functioning central a/c systems with new energy efficient units.	Voluntary. For existing homes	LIPA
LIPA Energy Efficient Pool Pumps	LIPA Service Territory*	Rebate for replacing older, singles speed pump with variable-speed or two-speed pump.			
<b>b. Policies - Affecting Community Behavior</b>					
Permitting for Energy Efficient Projects	Hempstead	Cap on construction permits at \$300 for energy efficient projects			
	Brookhaven	(LI Green Homes, Green Jobs Green NY) for low-interest funding of residential retrofits			
LIPA New York Energy Star Homes Program	LIPA Service Territory*	Incentives to builders for constructing ENERGY STAR Labeled homes			
Energy efficiency policy	Suffolk Planning Commission	All new residential, commercial and industrial building should be designed and constructed to reduce energy consumption and improve environmental quality.		Guideline considered when reviewing items for approval	
5. Energy Efficiency: Community	<b>a. Solar Projects</b>				
	Solar Farm	Brookhaven National Lab	BNL solar farm 32 MW		BNL/LIPA
	Car Ports	Suffolk, Huntington	Solar PV at Suffolk County parking lots: 4 municipal campuses and 2 LIRR parking lots. Currently 12 MW. Planned to be 17 MW when completed. 5 Solar PV car ports at Long Island Rail Road in Huntington		Suffolk/LIPA
	PV: Community Center	North Hempstead	LEED Platinum Community Center in New Cassel (with solar PV panels)		North Hempstead/ LIPA
	PV: Recycling Center	Smithtown	50kW Solar Energy System (power for Town's recycling center)		Smithtown/ LIPA

6. Renewables: Government Facilities	PV: Schools	Hempstead	Solar on Schools		Hempstead/LIPA	
	PV: Solar array	East Hampton	Planning 23,200 watt solar array on Bluff Rd in Amagansett		EHampton/LIPA	
	PV: Police Headquarters/Farm	Suffolk	Solar PV panels at Police Headquarters & Yaphank Farm		Suffolk/LIPA	
	PV Lighting: DPW	Suffolk	Solar lighting at DPW building in Yaphank		Suffolk/LIPA	
	PV: Business Incubator	Huntington	Rooftop PV panels at new Business Incubator		Huntington/LIPA	
	PV: Parks Admin Bldng	Brookhaven	Photo-voltaic Solar Panels (PV) and geothermal heating at the new Park's Administration Building		Brookhaven/LIPA	
	PV: Town Buildings/Car Canopy	Hempstead	Installed a total of ~80 kW at various Town buildings. In 2011, constructed a 100 kW PV multi-array in Point Lookout, NY, consisting of a car-canopy.		Hempstead/LIPA	
	PV: Park Yard	Hempstead	30kW PV roof array at Roosevelt Highway Yard		Hempstead/LIPA	
	NYIT Solar Decathlon House	Hempstead	Conservation & Waterways facility in Point Lookout, NY, serves as a central hub on the south shore for the NYIT Solar Decathlon House		NYIT/LIPA	
	PV: Town Hall	Huntington	28 kW PV system on the roof of Town Hall		Huntington/LIPA	
	<b>b. Wind Projects</b>					
	Installed Turbine: Recycling Center	Smithtown	10kW wind turbine (power for Town's recycling center)		Smithtown/LIPA	
	Installed Turbine: Town Hall	Brookhaven	Town Hall: wind turbine; major retrofitting of most systems		Brookhaven/LIPA	
	Installed Turbine	Hempstead	100kw wind turbine at LIDO beach clean energy		Hempstead/LIPA	
Green Choice Program	Babylon	10% of Town electricity through wind energy (Green Choice program)		Babylon/LIPA		
Small wind research	East Hampton	In process of determining feasible sites for small wind		EHampton/LIPA		
<b>c. Other</b>						
Solar PV on new construction	Suffolk County	Executive order directing new county buildings over 10,000 sq ft to include solar PV sufficient to provide 5% of anticipated peak electric load.				
Methane Gas Recycling	Brookhaven	Recycling of methane gas from landfill to power town buildings		Brookhaven/LIPA		
Methane Gas	Huntington	Grant for microturbine to use methane captured from sewage treatment, waste heat used for digester.				
Geothermal	Hempstead	Geothermal wells at several municipal facilities		Hempstead/LIPA		
7. Renewables: Community	<b>a. Programs</b>					
	LIPA Solar Pioneers & Solar Entrepreneur	LIPA Service Territory*	Rebates to homes and business for installation of solar PV panels.		LIPA	
	Clean Solar Initiative Feed-In-Tariff	LIPA Service Territory*	Long term purchase agreement for purchase of solar PV generated electricity at above market rate price.	Limited to 50 MW	LIPA	
	Go Solar Initiative	Brookhaven	Revolving benefit fund for residential solar installations.	Voluntary	EECBG. Now revolving fund.	
	Solar Initiative	Southampton	Town program granted up to \$2500 of rebates for solar installations.	Program completed	S'hampton	
	LIPA "Backyard" wind incentive	LIPA Service Territory*	LIPA wind energy production incentive for small to community sized wind installations		LIPA	
	Solar PV and Home Efficiency Educational Seminars	Hempstead	Partnering with LIPA and RELI, the Town has organized 8 seminars with ~700 attendees at various locations throughout the Town of Hempstead. These seminars focus on solar PV energy and things homeowners can do to improve home efficiency		Hempstead/LIPA	
	National Solar Tour	All Long Island Communities	Renewable Energy Long Island organizes an annual event that allows participants to visit homes and businesses that have solar installed.		RELI/LIPA	
	National Solar Tour	Hempstead	The Town participates in the National Solar Tour with Renewable Energy Long Island by opening facilities to the tour.		RELI/LIPA	
	<b>b. Codes and Policies</b>					
Unified Fast-Track Solar Permitting	Babylon, Brookhaven, East Hampton, Huntington, Islip, Riverhead, Shelter Island, Smithtown, Southampton, Southold	Standard flush roof mount residential solar installations approved with no property survey required, waived or minimum permit fee and maximum 14 day turnaround time. Requires 18" clearance at ridge and access path, warning labels at utility meter and any AC disconnect. Municipality maintains registry of solar installations for first responders.	Does not apply to ground mount or non-conforming roof mount systems	LIPA grants to towns and villages to help implement		
Fast-track Solar Permitting	Hempstead	Fast-tracked PV permits, \$100 flat fee				
Solar Permit-Fee	North Hempstead	Fast track permitting. No permit fee for residential solar. Survey required.	Requires survey for permit			
Solar PV Sales Tax Exemption	Nassau and Suffolk Counties	No county sales tax on solar PV installations				
PACE funding Solar PV	U.S.	Proposal in congress to allow PACE funding for Solar PV installations.				
Wind Energy Ordinance	Islip	Established community-scale wind regulations. Allows up to 156 ft. high in industrial, 45 ft in residential, and 70 ft in commercial zones.				
Wind Energy Code	Southold	Allows turbines up to 156 ft to tip of blade on agricultural zoned property over 7 acres.				
Unified Community Wind Building Code	East-End LI Towns	Suffolk County Planning Commission task force has developed model wind power code.				
Solar aesthetic restrictions policy	Nassau Planning Commission	Policy on referrals regarding municipal restrictions on solar installations. There should be no across-the-board bans. Restrictions should only be made for historical districts or where an architectural review board applies aesthetic criteria to other items. Restrictions for purpose of community character should apply only to systems visible from the street.	Commission referrals can be overridden by supermajority of municipal body.			
Renewable energy policy	Suffolk Planning Commission	When possible new buildings should utilize solar, wind and/or geothermal. When laying out new developments consideration should be given to orienting buildings to best utilize solar energy.	Guidelines considered when reviewing items for approval			
7. Renewables: Community	<b>a. Government Fleet Investments</b>					
	Hybrid/Electric	Babylon	Hybrid and electric passenger vehicles added to fleet			
	Anti-idling	Babylon	Anti-idling enforced through GPS systems in all town vehicles			
	Anti-idling	Hempstead	Several Public Safety vehicles will be retrofitted with anti-idling technologies			
	CNG/Hybrid/Electric/Flex-fuel/H2/Hydrogen Fuel Cell	Hempstead	Purchased 13 CNG vans, 50 neighborhood electric vehicles, 3 hybrid electric vehicles, 30 flex-fuel vehicles, a 21 passenger bus that runs on HCNG, and 2 hydrogen fuel cell prototypes.			
	CNG/Flex-fuel/ Hybrid	Huntington	Purchased 14 hybrids, 11 flex fuel vehicles, and 4 CNG garbage trucks. Plan to convert 20% of the refuse hauling fleet to CNG per year			
	Biodiesel Project	North Hempstead	Collects oil from restaurants to power municipal vehicles			
	Hybrid	Huntington, Islip, North Hempstead, Southampton	Conversion of vehicle fleet to hybrid cars/trucks			
	Alternative Fuels	Brookhaven	All new refuse haulers use alternative fuels			
	CNG	Smithtown, Brookhaven, Huntington	Fleet of natural gas refuse haulers			
	Hybrid	Babylon	Purchased only hybrid passenger vehicles since 2005			
	Biodiesel pilot program	Suffolk	Biodiesel pilot programs: Bergen Point /Indian Island Facilities and Suffolk County dredging projects			
	CNG	Huntington	Conversion of refuse hauler fleet to CNG trucks			
	HEV/CNG	Suffolk	Upgraded fleet to HEV light duty vehicles, CNG heavy & light duty vehicles. 110 hybrid vehicles in fleet.			
	CNG/Electric/Hydrogen/H2/H2	Hempstead	Continuous updates to fleet: CNG, Electric Vehicles, Hydrogen, H2/H2			
	<b>b. Government Infrastructure Projects</b>					
EV Charging Stations	Babylon	Car charging stations installed	Available to public			

<b>8. Alternative Fuel Vehicles and Transportation</b>	CNG Pumping Stations	Brookhaven	CNG pumping stations installed			
	Hydrogen Fueling/CNG/EV Charging Stations: PV	Hempstead	Fueling station located in Point Lookout, NY that dispenses 3 distinct fuels: hydrogen, Compressed Natural Gas (CNG). Will construct (2) solar PV carports to power electric vehicles. Available for public use.		EECBG	
	EV Charging Stations: PV	Huntington	Install a 5 electric vehicle solar PV charging station at the Huntington Train Station in Huntington Station		NYSERDA	
	EV Charging Stations: PV	Hempstead	Solar powered electric vehicle charging station			
	Hydrogen Fueling Stations	Hempstead	Hydrogen fueling station			
	EV Charging Stations	Oyster Bay	Charging stations in Hicksville municipal parking garage.			
	CNG fueling stations	Suffolk County	2 CNG fueling stations, one at Commack, one at Westhampton Beach. A third station is planned for Yaphank in 2013			
	<b>c. Government Policy - For Government Operations</b>					
	Alternative Fuel Vehicle Purchasing Policy	Brookhaven	Wherever possible, departments should purchase clean energy/alternative fuel vehicles in order to reduce emissions and consider purchase of alternative fuel vehicles when economically feasible, hybrid, CNG and dual fuel vehicles			
	Vehicle Replacement Policy	Brookhaven	Fleet conversion to hybrid, AFV vehicles			
	Vehicle Replacement Policy	Smithtown	All new non-emergency Town vehicles must use alternative fuel			
	Alternative Fuel Policy	Babylon	Must maintain 20% bio-diesel for trucks/heavy equipment			
	<b>d. Public programs/incentives</b>					
	HOV Lane	All Long Island	NYS Department of Transportation has provided stickers and has utilized cars to use HOV lane without having to have more than one person.		Voluntary	
Plug-in Electric Vehicle Rebate	LIPA Customers	A one-time \$500 mail-in rebate for qualifying Plug-In Hybrid Electric Vehicles (PHEV) or Plug-In Electric Vehicles (PEV)		Voluntary	LIPA	
Preferential Parking	Oyster Bay	Priority for hybrid in Hicksville municipal parking garage.				
Preferential Parking	Huntington	Free parking at railroad stations, parking meters and beaches for residents who drive alternative fuel vehicles				
<b>9. Other</b>	Clean Energy Projects and Initiatives	Brookhaven	Office of Energy and Sustainability (OES) created to facilitate reducing the Town's overall carbon footprint. Clean Energy Task Force a venue for clean energy discussion between Town officials, staff and community clean energy advocates. Clean energy meetings at Town Hall to promote and encourage the use of renewable energy/energy efficiency			
	Green Industrial Triangle	Brookhaven	Green Industrial Triangle with special economic incentives for businesses and industries			
	Operation ECO-Quality	Babylon	Pollution reduction in Wyandanch			
	CNG Ambulance		North Shore - LU Health System has purchased what is believed to be the world's first CNG ambulance.			
	Motion Sensors for Parking Lights	Huntington Hospital	Motion sensors installed in lighting for parking garage.			
	Light bulb Exchange Program	Hempstead	CFL light bulb exchange program			
	LEED Training	Suffolk County	35 County and Town officials trained for LEED accreditation; 17 of those officials went on to achieve LEED AP accreditation.			
	Environmental Open Space	Huntington	Funding REImprovements at town facilities			
Energy modeling	Suffolk County	Energy Modeling with support from AERTC				

† the Rockaways, except Rockville Centre, Freeport, and Greenport



## **Summary of Existing Plans - Overview**

Vision Long Island reviewed over 250 different Long Island based plans for the Cleaner Greener Communities program. Of them 71 are regional in nature with 14 covering Nassau County, 17 Suffolk and 40 covering the entire Island. In addition 30 plans were townwide with at least one from each of LI's 13 townships. This leaves roughly 150 community based plans that were either commissioned by a local municipality or a community group. These community based efforts typically come in the form of a corridor plan, hamlet plan, downtown revitalization, waterfront revitalization or brownfields plan or a visioning. Some of them have completed a full scale Generic Environmental Impact Statement.

All of the plans listed are active in some form as they are referenced or part of the landscape of current decision making. Most were created within the last ten years but selected active plans can reach back to the late 90's. No plans from private or special interests were placed in this review only plans that have a public interest as well as a public process component.

The area of interests that are covered in these plans vary and trends and highlights will be referenced below but the primary area covered are land use, transportation, infrastructure, housing and economic development. Energy plans were reviewed very thoroughly by the Sustainability Institute at Molloy College in a prior memorandum.

### **Growth vs Preservation:**

Over half of the plans reviewed are focused on preserving existing conditions and quality of life and often limiting economic growth. These plans may identify zoning codes, open space acquisition, beautification, streetscaping, legal strategies, funding mechanisms and other initiatives to work in a largely preservation mode.

A little less than half of the plans reviewed were focused on changing existing conditions with a plethora of strategies blending redevelopment, infrastructure and placemaking concepts to target growth in key centers throughout Long Island.

**Of the 150 reviewed plans here are the following trends that are outlined in the recommendations:**

### **Downtown Revitalization:**

Many plans across LI are directed towards implementing a series of downtown revitalization strategies but emphasize placemaking, economic redevelopment, housing, infrastructure, public space and supportive mixed use zoning policies.

Examples of these types of planning include Farmingdale, Mineola, Westbury, Riverhead, Patchogue, Bay Shore and over 35 other communities with about 60 total plans.

### **Walkability and Safe Streets:**

Many of the plans emphasize improving public safety and safe streets to make the roadways safer for pedestrians, bicyclists and all users. Examples of these types of strategies are in Manhasset, Syosset, Hicksville, Smithtown, Lake Ronkonkoma, Mastic/Shirley, New Cassel, Farmingdale, Great Neck and Glen Cove.

**Public Spaces:**

Some plans incorporated public parks, spaces, cultural and community activities as a part of their initiatives. Examples of these types of efforts are included in Farmingdale, Bay Shore, Central Islip, Roosevelt, Hempstead, Riverhead, Port Jefferson and others.

**Housing choices including Transit Oriented Development:**

Many plans included housing options including transit oriented development. Areas that have laid the groundwork for these strategies include Great Neck, Valley Stream, Westbury, Mineola, Hempstead, Farmingdale, Freeport, Patchogue, Bay Shore, Ronkonkoma, Lake Ronkonkoma, Port Jefferson, Riverhead and others.

Over 7,000 units of transit oriented development has been approved on LI over the last seven years with the bulk of projects arising from these planning efforts.

**Economic Development and Jobs:**

Many plans prioritize job development and economic revitalization as key recommendations. Communities with this emphasis included New Cassel, Roosevelt, Hempstead, Huntington Station, N. Bellport, N. Amityville among others.

**Transit and Parking Infrastructure:**

A handful of plans focused on improved bus, ferry and rail transit service in addition to increased parking infrastructure. Wyandanch, East Farmingdale, Riverhead, Farmingdale, Glen Cove, Patchogue and Huntington are examples of these priorities.

**Wastewater Treatment:**

A number of plans focused on the need for improved wastewater treatment capacity, upgrades and new technologies. Areas with this focus include Mastic/Shirley, Patchogue, Rocky Point, Smithtown, Kings Park, Port Jefferson, Huntington Station, Sag Harbor, Greenport and Hempstead among others.

**Brownfields:**

A handful of plans were developed to focus on Brownfields remediation. Long Beach, New Cassel, Glen Cove, Wyandanch are examples.

**Waterfront Revitalization:**

A handful of plans were developed to prioritize public access to the waterfront as well as other revitalization strategies. Oyster Bay, Smithtown, Freeport, Greenport, Port Jefferson, Patchogue, Huntington and Bay Shore are examples among others.

**Areas of Conflict:**

The two areas of conflict between recommendations made in the Cleaner Greener process to date and the existing plans is are in the areas of: 1) the Third Track proposal for the MTA/LIRR and 2) increased Freight Rail opportunities. There were no local plans found that support either of these initiatives.



## List of Long Island Community Plans, Downtown Plans, Corridor Plans, Master Plans, Comprehensive Plans, Infrastructure Plans and other Sustainability Plans - Return to Eric Alexander [ea@visionlongisland.org](mailto:ea@visionlongisland.org)

COMMUNITY	PLAN	LAND USE	TRANSPORTATION	WATER	WASTE	HOUSING	ECONOMIC DEVELOPMENT	ENERGY
<b>REGIONAL PLANS</b>								
	Long Island Regional Comprehensive Plan 1999	In Nassau a large new park at Woodbury and smaller ones at Woodmere, Bayville, and the Naval Devices site at Sands Point. In Suffolk a new state park at Flanders, and extensions of Montauk Point and Wildwood Parks.	Summarizes recommendations made in the Nassau Hub Study and the LITP 2000.			There is a shortage of affordable housing units. There are between 100,000 and 140,000 illegal accessory units at any one time. Zoning should accommodate different types of units and barriers to construction should be eliminated from the permitting process. Development should be clustered with a mix of residential types in proximity to one another. Apartments should be clustered near public transportation and shopping, ideally in activity centers like Nassau's fifteen older business districts.	Industry and Commerce should be concentrated along the center spine of the island near existing infrastructure and equitably accessible.	
	LIRPC LI2035 (2010)	Protecting the things that make Long Island such a treasured place to live and exploring opportunities for future growth and development that enhance, rather than detract from, the island's quality of life. L-1 Establish development guidelines that serve to preserve open spaces and protect the natural environment L-2 Complement town and village land use regulations with overlay guidelines L-3 Protect farmland and ensure local food access L-4 Protect neighborhood character and provide for location-compatible and appropriate new development	T-1 Create alternative, local, dedicated funding sources for Long Island transportation and environmental infrastructure T-2 Create vibrant, transit-supported communities T-3 Establish transit-served job centers T-4 Implement a meaningful suburban transit system T-5 Create a dedicated funding source for mobility improvements in transit-supported developments and downtowns T-6 Pursue the viability of establishing Long Island as a federally-designated Metropolitan Planning Organization (MPO) T-7 Improve and create new regional connectivity to include off-Island connections and network expansion T-8 Conduct a feasibility study for a deepwater port on Long Island Sound in eastern Suffolk County T-9 Take action to manage congestion and make transit competitive T-10 Expand active transportation options	I-1 Implement a plan to protect Long Island's natural water resources to include the creation of a Long Island Water Resources Management Board I-4 Protect the Island's beaches and marine resources	I-3 Create a Long Island-wide "zero waste plan" as part of a regional strategy	EQ-1 Develop a fair-share housing plan for creating the necessary next-generation and mixed-income workforce housing for Long Island EQ-2 Establish an immigrant task force to meet the challenges and seize the opportunities of an emerging immigrant population	Increasing the economic activity and competitiveness of Long Island by improving the overall business climate, while expanding regional collaboration on economic growth, job creation, and workforce development. E-1 Build consensus for a regional economic strategy and implementing entity E-2 Level the economic playing field for business retention and attraction incentives E-3 Market Long Island's assets nationally to attract new businesses and workforce E-4 Create a new industry and competitive job base for innovation in home energy efficiency, distributed energy generation and renewable energy technologies E-5 Enhance supportive resources for high-tech start-ups E-6 Establish mechanisms to train workers for 21st century jobs E-7 Stimulate development and preservation of mixed-income workforce housing options E-8 Develop a "Buy Long Island First" strategy for promoting Long Island products, goods and services and establish a framework for the networking of local producers and consumers E-9 Build the	I-2 Develop a regional energy strategy and energy conservation programs to realize an affordable, reliable and diverse low-carbon energy supply
	Long Island 2035 Visioning Initiative (2009)	To develop a public consensus on where the next generation of residents should be housed, the transportation systems needed to support these settlement patterns, and the actions needed to insure that prosperity is broadly and equitably shared. This includes prioritizing locations for development and preservation, broadening support for transportation, housing and open space investments, adoption of model zoning ordinances, and encouraging multi-municipal planning efforts.				To develop a public consensus on where the next generation of residents should be housed, the transportation systems needed to support these settlement patterns, and the actions needed to insure that prosperity is broadly and equitably shared. This includes prioritizing locations for development and preservation, broadening support for transportation, housing and open space investments, adoption of model zoning ordinances, and encouraging multi-municipal planning efforts.	Enhance economic prosperity by retaining and creating well-paying jobs that provide upward mobility to residents, attracting and maintaining a highly productive workforce, and nurturing and rewarding innovation.	
	Long Island Transportation Plan 2000		Long Island Rapid Commute (LIRC) transit system (About 90 Transit routes and Priority lanes (about 70 miles) on expressways and parkways (carpools permitted to use excess capacity, if any)), Roadway improvements (about 130 miles), and Goods movement, bicycle and pedestrian strategies					
	Rethink LITP 2000		Look at light rail possibilities on the Island rather than more highway construction.					

	Long Island Regional Strategic Economic Development Plan	Development should be clustered. Suffolk Co. has too much industrially zoned land and only the least environmentally sensitive should be allowed to be developed as such. Land in centers should be recycled before new land is developed on the fringe.	Continuous service roads on the LIE from exit 65 to 68. Widen the northern state parkway to six lanes. Widen Route 110 to six or eight lanes. Investigate an income tax transportation surcharge.				Industrial and Commercial development should be located along the center spine of LI close to its major east-west transportation corridors. Federally funded manufacturing education center to promulgate new techniques. Economic development agencies should work closely with banks to secure funding. Allow even limited commercial air cargo service at Calverton Airport. Vineyards are important for tourism. Create a comparable entity to Connecticut's Mystic Seaport in one of LI's harbors. Allow zoning bonuses to commercial and industrial facilities willing to set aside square feet for dependent care facilities. Suffolk Co. should assess property so that it is done uniformly across the county and equitable distribution of the tax burden is achieved. School districts should be consolidated.	Take all necessary measures including home auditing at time of sale to ensure energy conservation on the island.
	Cape May to Montauk: A Coastal Protection Plan, 2003	incentives smart growth land use planning,		Limit the # of permits granted for development in the bight, track these, protect freshwater wetland habitats, and don't allow septic systems on lots that are too small.				
	Environmental Quality as Economic Advantage: A New Vision for Long Island		Use "smart cards" at toll booths, premium pricing for peak hour travel, benefits for non-peak road use and "smog fees." Stop HOV lanes on LIE and stop widening 25A and Southern and Northern State Parkways. Build Nassau County light rail.	continue to study the borwn tides off the east end to find their cause, end filling of wetlands, and implement the central pine barrens plan.	Move from flat rates to fee per bag trash collection		Tax farm inheritance as farm use rather than highest and best, make attempts to attract only non-polluting industries, incentivize tourism development in existing towns (like Port Jefferson), and improve attraction signage in a unified way across the island.	
	Regional Freight Plan Project, 2005		South Harbor freight tunnel with Bay Ridge Line connection to Main Line of LIRR. Coordinated with third track, trailer-on-flatcar vertical clearance program to Pilgrim site and intermodal village will shift freight to rail. Variable pricing on Queens-Midtown Tunnel and allowing freight in HOV lanes off-peak will reduce congestion on LIE.				By making all freight movement modes competitive, each mode will serve the appropriate segment of goods with competitive pricing and a higher level of service.	
	Pilgrim State Intermodal Transportation Facility, NYS DOT, 2009		Create a large scale intermodal transportation facility at the Pilgrim State grounds to accommodate increased freight rail operation.					
	Third Track EIS, MTA, 2009		Plan to expand LIRR service with a Third Track in advance of East Side Access.					
	Where is the MTA on TOD, PCAC, 2009		Recommendations to enhance Transit Oriented Development planning and projects with the LIRR.					
	Corridor Management Plan for Select Scenic Parkways, 2010		Analysis of strategic improvements to historic parkways across LI					
	Long Island Sound Waterborne Transportation Plan, 2010							
	Non-Motorized Transportation Study, 2007		Survey and Recommendations for enhanced walking, biking facilities across LI.					
Long Island Sound	Listen to the Sound 2000: A Citizen's Agenda for the Long Island Sound	Protection of critical land and underwater habitat, with limited access		Creating and protection of coastal watershed buffer lands, beaches and coastal park land for public access, publicly accessible docks and boat launch areas, reclaimable urban waterfronts for public access				
Long Island	Innovate Long Island: A New Plan for the Economic Development of the Long Island Region		Improve critical roadways. Expand LIRR capacity by adding third track, additional stops, and scheduled trains. Promote and implement transit-oriented development which includes higher density development. Create strategic transit hubs throughout Long Island. Develop north/south links and expanded bus routes and schedules. Study linking Long Island communities with light rail along major traffic corridors.	Provide adequate funding from all levels of government to protect the remaining 24,000 acres of open space to protect our ground water and the 10,000 acres of agriculture acres now being farmed. In addition to the benefits that would provide in preserving open spaces, it would also help ensure the purity of Long Island's aquifer-based water supply.	Extend existing sewer systems; create new ones where appropriate, such as in downtowns and transit hubs. Support a new regional analysis of our solid waste issues to determine the effectiveness of regional coordination to increase recycling options and reduce truck movement of solid waste off of Long Island.	Revisions to local zoning codes, draft accessory apartments ordinances accompanied by a tax amnesty for existing unsanctioned apartments; including a mechanism to bring apartments up to code. Encourage accessory apartment ordinances, in municipalities where none exist. Mandate affordable units as part of all residential, multi-residential, and mixed use developments. Permit higher density and/or mixed use development in downtowns, on major roadways and underutilized sites.	Downtowns and hamlet centers, major roadways and underutilized sites are ideal locations for higher density housing with an affordable component and should be encouraged.	

NY-NJ-CT	<b>Third Regional Plan for the NY-NJ-CT Metropolitan Area, 1996</b>		Connect the suburban transit network with all the major concentrations of activity at the heart of the region, Long Islanders to East Midtown and Lower Manhattan. Link suburban areas of the region.				Reinvest in urban parks, public spaces, and natural resources.	
Long Island Sound	<b>LI Sound Stewardship Initiative</b>		To identify criteria and lanscape attributes that were important for open space and water-dependent recreation areas. Stewardship sites were chosen from thousands of potential sites identified through the inventories and were organized into distinct areas.					
Long Island South Shore Estuary Reserve	<b>Comprehensive Management Plan</b>			Created by the South Shore Estuary Reserve Council in order to identify local estuaries, improve and maintain water quality of those estuaries, protect and restore living resources in the reserve area, expand public use and enjoyment of the estuary, sustain and expand estuary-related economy, increase education outreach and stewardship, and to make suggestions for implementations				
Long Island South Shore Estuary Reserve	<b>A Vision for The South Shore Bayway</b>		To turn the South Shore Estuary Bayway into an interwoven network of existing maritime centers, parks, historic and cultural sites, community centers, and waterfronts used by pedestrians, bicyclists, boaters and motorists.	To interpret coordinated and cohesive signs of key estuary features, offer self-guided tours and orient Bayway residents and visitors to appreciate the many resources the Reserve offers.				
Long Island	<b>LI Index 2004</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2005</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2006</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2007</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2008</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2009</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	<b>LI Index 2010</b>						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	

Long Island	LI Index 2011						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	LI Index 2012						To measure annual progress towards the goals of a growing, inclusive economy that creates a range of job opportunities for an educated population that enjoys a high quality of life based on creative, livable communities with affordable housing and vibrant job centers close to transportation.	
Long Island	Long Island Regional Comprehensive Plan - 2000 - 2020	To build on previous plans including <i>Financing Government on Long Island, the Strategic Economic Development Plan, and the Comprehensive Open Space Plan</i> . This includes a review of whether planning makes a difference, if it can affect change, if local citizenry rejects sprawl, if alternative transportation modes applicable, if the public's general concerns of groundwater scientifically safe, and if existing residents will tolerate anything other than single-family detached housing.	To build on previous plans including <i>Financing Government on Long Island, the Strategic Economic Development Plan, and the Comprehensive Open Space Plan</i> . This includes a review of whether planning makes a difference, if it can affect change, if local citizenry rejects sprawl, if alternative transportation modes applicable, if the public's general concerns of groundwater scientifically safe, and if existing residents will tolerate anything other than single-family detached housing.				To build on previous plans including <i>Financing Government on Long Island, the Strategic Economic Development Plan, and the Comprehensive Open Space Plan</i> . This includes a review of whether planning makes a difference, if it can affect change, if local citizenry rejects sprawl, if alternative transportation modes applicable, if the public's general concerns of groundwater scientifically safe, and if existing residents will tolerate anything other than single-family detached housing.	
Long Island	Planning in Times of Economic Uncertainty - NYMTC 2011 Annual Report and TIP Funded Projects		To improve the entirety of the tri-state region's aging transportation infrastructure as a vital economic component by gaining opinion from across the region, forecasting future needs, maintaining the long-term vision, coming up with new innovations and strategies, and planning for uncertainty.					
Long Island	A New Vision for Long Island's Economy - The Strategic Economic Development Plan for Nassau and Suffolk County						To create a vision for long term economic growth characterized by increased collaboration among academia, private and public sectors, and labor including investment in workforce, identifying projects of regional significance, and identifying key strategies for economic growth	
The North Shore	North Shore Heritage Area Management Plan	To create a plan that preserves local heritage and historical resources, protects environmental natural and maritime resource, and enhances the economic vitality and cultural life within the Heritage Area by contributing to the process of sound planning and environmental protection with the participation of both the public and private sector.						
Long Island	Strategies for a New Age: New York State's Transportation Master Plan for 2030		To articulate a vision for New York's future transportation system as a seamless system by outlining policy guidance and strategic resources that includes continuing commitment to the State's transportation infrastructure, focusing on the State's most critical multi-modal corridors, strongly supporting increased cooperation and coordination of all of NYS's transportation providers, emphasizing environmental sensitive needs, and advocating increased participation in transportation decisions by local officials and stakeholders.					
Long Island	Long Island Infrastructure - The Road Ahead - New Paths for Infrastructure and High Paying Jobs for Long Island		To identify the full value of public property, unfavorable pricing mechanisms, unrealistic expectations and poorly drafted agreements, and budget gimmickry in order to better meet the challenge of New York's growing backlog of public infrastructure needs.				To identify the full value of public property, unfavorable pricing mechanisms, unrealistic expectations and poorly drafted agreements, and budget gimmickry in order to better meet the challenge of New York's growing backlog of public infrastructure needs.	
Long Island	Connect Long Island - A Regional Transportation and Development Plan		To help Long Island grow and prosper by building mixed-use communities around LIRR stations, make transportation investments to improve LIRR connections, and to connect local hubs to regional job centers by better enabling north-south mass transit connections.					
Long Island	Quality Communities - Five Years of State and Local Partnerships	Statewide plan driven by local communities to incorporate downtown revitalization and environmental enhancements to local areas						

Long Island	Proposed MTA Capital Program 2010-2014		To make recommendations to improve the MTA's capital program including replacing obsolete signals with new technology, providing innovative and enhanced bus service, communicating real time information, implementing new fare and toll payment options, improving access for the elderly and physically challenged, optimizing system links. maximizing investments in commuter rail stations in NYC, implementing strategic corridor improvements, making sustainable investments, and creating new network expansion initiatives.					
Long Island	Long Island Comprehensive Plan 2000-2020 Housing Segement						Adequate housing for all. Eliminating housing defeiciencies. Livable communities with open space	
Long Island	Listen to the Sound 2000			Create a network of protected natural areas. Restire resources that have already been destroyed or debased. Improve stewardship of public and private lands to ensure preservation of the Sound's water quality, habitat and recreational resources.				

**NASSAU COUNTY**

<b>NASSAU COUNTY</b>								
	Nassau County Master Plan Draft 2010	Redeveloping Vacant Parcels instead of developing on untouched land	Enhance regional connectivity by expanding and interconnecting local transit services with LIRR in Nassau County; improve transit hubs where rail, bus, auto, bicycle and pedestrian links meet	Treatment methods that include aeration and carbon adsorption to remove nitrate contamination from water supply wells.	Digested sludge and collection of fats, oils and grease at treatment plants as energy source	Adapting household building to changing demographics and household compositions	offering free workforce training in some fields	Thermostat upgrading to programmable models to avoid excessive heating or cooling and regulating buildings during unoccupied times
	Nassau County Improvement Plan 2007-2010		Partially funding bus company expansion	Installation of a detention basin below the land to collect storm water runoff	Building a sewage treatment plant			
	Nassau County Department of Public Works, Motor Parkway Trail, 2012							
	Nassau Infill Redevelopment Study 2012							
	Nassau County 2011-2014 capital improvement plan		Resurfacing is undertaken to rehabilitate existing road pavements in order to provide for better and safer surfaces for the traveling public and to reduce maintenance costs	installation of a stream flow augmentation pumping system in the Massapequa Preserve, which discharges directly into the creek's headwaters, as well as dredging several nearby ponds, and improving storm water control so that runoff goes into a 12 acre wetland located on Massapequa Preserve.	Replacing the existing belt filter presses as well as improving the odor control system for the sludge processing at the Cedar Creek Sludge Dewatering Facility. The new belt filter presses will reduce the water volume in the sludge by 5 to 8% thus reducing the hauling and disposal costs.4			
	Nassau Five Year Plan 2010-2014	Building on urban renewal areas rather than vacant land						
	Capital Improvement Plan 2010-2013		Replacement of deficient sub-standard and damaged guide railing at various county roads and bridges	Installation of a stream flow augmentation pumping system, which discharges directly into the creek's headwaters, as well as dredging several nearby ponds, and improving storm water control so that runoff goes into a 12 acre wetland located on the Massapequa Preserve.	Improving security at waste infrastructure facilities to maintain their proper and safe operation.	replacing the 8 inch diameter signal lenses with new 12 inch diameter signal heads. This change increases the traffic signal visibility and has been proven to reduce right angle, rear end, and pedestrian accidents. In addition, the newly installed signals will be energy efficient LED displays which will reduce energy usage thus lowering energy costs for the County.	revitalizing the downtown business district in Elmont via the installation of new sidewalks, brick work, benches, Victorian style lights, and trash receptacles. The revitalization of this area will attract more customers to the downtown business district thus benefiting the local economy and that of Nassau County as a whole	replacing the 8 inch diameter signal lenses with new 12 inch diameter signal heads. This change increases the traffic signal visibility and has been proven to reduce right angle, rear end, and pedestrian accidents. In addition, the newly installed signals will be energy efficient LED displays which will reduce energy usage thus lowering energy costs for the County.
	Nassau County Legislature Smart Growth - Planning, Development and the Environment Committee 2002	public nassau kick off for legislative review of public input for county cool downtowns program and prioritization of sustainability policies						
	Nassau County Economic Development Plan 2002	Revitalize our downtowns, Clean Recycle and redevelop brownfields, preserve open spaces				Facilitate the creation of new workforce and senior housing units	Attract and retain high-tech/high-skilled industries, promote sports, entertainment and tourism	
	Nassau County Open Space Plan							
	Nassau County HUB Study Alternatives Analysis/EIS, 2012							
	Nassau Hub Major Investment Study 2006	Develop transit supportive land use plans and policies for the Nassau Hub corridor.	Provide a safe, high-quality, multi-modal transportation service to the Nassau Hub Corridor				Sustain the local economy and promote new development	
	Nassau County Hub Transit Study Regional Area Visioning 2003							

	<b>Nassau Hub Study 1998</b>	Gear future development to clusters concentrated around the transit investments and station infrastructure	Light rail line or loop serving 10 or 11 of the Hub activity centers respectively with connections to Mineola, Hempstead, or new Nassau Hub LIRR stations. Internal circulator PRT and FIN loops also examined. Short term bus route change solutions. Transit can be coordinated through the existing governance structure of the MTA, through a newly created Nassau Co. Transit Authority, or by contracting private operators.					
--	------------------------------	--	--	--	--	--	--	--

**TOWN OF HEMPSTEAD**

	<b>Town of Hempstead Sustainability Plan 2012</b>							Facility energy study
Alden Manor								
Atlantic Beach								
Baldwin								
Bellmore								
Bellrose								
Cedarhurst								
East Meadow								
East Rockaway	<b>Village of East Rockaway Smart Growth Plan, 2010</b>	review zoning for waterfront and downtown. Look at TOD revitalization						
Elmont	<b>Elmont Community Vision Plan 2008</b>	Increases allowable building height at downtown center allow mixed use, maintain heights along Hempstead Tpke.						
Floral Park								
Franklin Square								
Freeport	<b>Village of Freeport North Main Street Corridor Study 2010</b>	revitalize area north of trainstation	possible road diet, traffic calming, streetscape improvements					
	<b>Village of Freeport BOA Plan</b>	Redevelop underutilized properties, revitalization of area						
Garden City	<b>Garden City Master Plan, 2005</b>	Determine appropriate mix of office vs retail	Streetscaping, traffic calming					
Hempstead	<b>Village of Hempstead BOA Plan, 2009</b>	Redevelop underutilized properties, revitalization of area						
Hempstead	<b>Village of Hempstead Land Use Plan and GEIS, 2012</b>	Downtown revitalization						
Hempstead	<b>Village of Hempstead Vision Plan, 2006</b>	Downtown revitalization						
Hewlett								
Inwood	<b>Inwood Community Vision Plan, 2009</b>	quality of life issues						
Island Park								
Lawrence								
Levittown								
City of Long Beach	<b>City of Long Beach, Comprehensive Plan -2007</b>		Optimizing traffic signal timing				Allowing single-family households to become two-family households with a permit	Expanding the hospital which is already the largest employment and health care provider in the area
Lynbrook	<b>Lynbrook USA Downtown Revitalization 2009</b>	"anchor" uses at either end of Atlantic	traffic calming beautifications pedestrian safety					
Malverne	<b>Village of Malverne Master Plan, 2009</b>	Preserve farm, look at TOD options						
Merrick								
Oceanside								
Point Lookout								
Rockville Centre	<b>Village of Rockville Centre Master Plan</b>	Increase allowable building height to 5 stories						
Roosevelt	<b>A Plan for the Comprehensive Economic Development of Roosevelt, NY, 1999</b>	To select and advocate capital development projects or land-based strategies					to encourage and provide housing development and management services. Expand housing improvement programs to serve 175 to 200 homes per year	To provide stewardship and business services. To provide training and human capital development programs. Develop a professions/retail business center with 150,000 to 200,000 sq ft. Implement employment strategy serving 300 to 250 people each year.
Roosevelt	<b>Seeking a Shared Vision for Roosevelt 2002</b>							
South Floral Park								
Stewart Manor								
Uniondale	<b>Uniondale Vision Plan 2012</b>		Improve safety and access, and reduce negative environmental and social impacts, by balancing the transportation needs of pedestrians, bicyclists, automobile drivers, and public transportation passengers				Support the continuing evolution of Uniondale as a well-rounded community offering an attractive residential environment with a mix of housing options, supportive services, community facilities and a vibrant economic base	Improve the appearance of Uniondale to support creation of a unique, positive community identity, which can enhance residential livability and encourage economic development. Improve the local economy by attracting businesses that will meet the needs of the community while generating jobs and tax revenue
Valley Stream	<b>Valley Stream Master Plan 2011</b>		Eliminate need for parking variances				Increase housing density close to downtown	Streamline zoning/permitting process to encourage new businesses, allow hotels
Wantagh								
West Hempstead	<b>West Hempstead Urban Renewal Plan, 2009</b>	area around station alternate land uses	courtesy hotel					
Woodmere								
Woodsburgh								

**TOWN OF NORTH HEMPSTEAD**

Albertson								
-----------	--	--	--	--	--	--	--	--

Baxter Estates								
Carle Place								
East Hills								
East Williston								
Flower Hill								
Great Neck Plaza	Master Plan	Rezone parts of the current business districts, particularly along Middle Neck Road, for mixed-use zoning; to allow multiple unit development, business establishment, and/or a combination of both.		Implementation of an aggressive leak detection program for the piping distribution network of water supply.	Reduce the amount of garbage collected by educating residents on the costbenefits of recycling, and aggressively enforce compliance with Village ordinances. Where necessary, look into obtaining more recycle buckets to replace lost ones and to ensure all newly constructed homes in the Village have one	Affordable housing for workers who provide essential emergency services, so-called workforce housing, is needed. Rent stabilization laws should be retained, and incentive-based rezoning and laws should be developed to provide affordable below-market housing rates to the target workforce, and to keep the units as workforce housing as they turn over	Re-establish a local Village of Great Neck Business Association, with organizational help and input from the Village, to facilitate business conditions and promote local business interests	Installation of a cogeneration plant at Parkwood Sports Complex, to reduce energy costs and improve the environment for users of the pool and ice rink.
	Great Neck Peninsula Transportation Visioning Project 2009		traffic calming including possible roundabout, road narrowing					
Great Neck Estates	Middle Neck Road Plan, 2011							
Greenvale								
Kensington								
Kings Point								
Lake Success								
Manhasset	Plandome Road Visioning Plan 2010		Improve pedestrian safety along road					
Manorhaven								
Munsey Park								
Mineola	Village of Mineola Master Plan, 2006		Adding stop signs, road etching and lateral shifts on roads located in residential areas in order to stop them from being used as cut-throughs from major roads				Encouraging events such as a farmer's market in the downtown area in order to stimulate businesses in that area	
New Hyde Park	Village of New Hyde Park Master Plan							
New Cassel	New Cassel Shared Vision Plan		Reconstruct Prospect Avenue to increase pedestrian safety and comfort					
	New Cassel BOA, 2009	Redevelop underutilized properties, revitalization of area						
	New Cassel Industrial Area Visioning Study 2013							
North Hills								
Old Westbury								
Plandome	Plandome Road Visioning Plan 2010		traffic calming beautifications pedestrian safety					
Port Washington	Parking Utiliation Plan- Downtown Port Wasington		Identify parking lot user groups and determining how best to utilize the available parking lots and on street parking.					
Port Washington	Bay Walk Park Master Plan, Port Washington, 2004	park design						
Port Washington	Port Washington Visioning, 2005	Downtown improvements including hotel						
Roslyn	Village of Roslyn Master Plan					Accomodate new residential development in a manner that also helps to maintan and create attractive and highly valued neighborhoods.	Create a cohesive waterfront that enhances the economic vitality and value of its uses, the adjacent downtown and the village as a whole.Bolster the downtown's speciality niche as an historic waterfront business center, used by residents from the region seeking one-of-a-kind, small-scale shops and restaurants.	
Roslyn Heights								
Westbury	Feasibility Plan of the Village of Westbury Business Improvement District						To fill vacnancies of commercial properties in the business improvement district	
Westbury	Smart Growth Revitalization Initiative 2005	Increase open space without discouraging healthy growth, modify zoning for mixed use	More walkable downtown, improve streetscaping, reduce parking requirements				encourage and strengthen positive growth-entice high level commercial establishments	
Williston Park								
<b>TOWN OF OYSTER BAY</b>								
Bayville	Local Waterfront Revitalization Plan, 2003							
Bethpage	Grumman/Navy Property, Land Use Plan & Market Study, 2003	Reuse Grumman property as mix of industrial and office space						
Bethpage	Downtown Revitalization Plan, 2012	underway						
East Meadow								
East Norwich								
Farmingdale	Village of Farmingdale Downtown Visioning and Revitalization Plan 2009	Revitalize downtown, allow apartments over stores, TOD						
	Village of Farmingdale Parking Management Plan, 2010		short term parking close to shops, mid and long term further away					
City of Glen Cove	City of Glen Cove Master Plan, 2011	Improved neighborhood qualities	Adding more access points	Coastal management				implementing Renewable Energy sources
	City of Glen Cove Cedar Swamp Road Corridor Study		Traffic improvements, beautification					
	City of Glen Cove BOA Plan, 2010	Redevelop underutilized properties, revitalization of area						
	Ferry Terminal Plan, 2007							
Glen Head								
Glenwood Landing								

Hicksville	Hicksville Downtown Revitalization Action Plan 2012	split CB zone into 3 subzones, highest density by train station, mid density along Broadway, lowest in existing res. neighborhoods.	improve pedestrian safety, narrow lanes, bulb outs, trees in medians			allow variety of housing types, apartments, townhouses, live-work	farmers market, encourage local chains as anchors	
	Hicksville BOA, Northwest, 2012	Redevelop underutilized properties, revitalization of area underway						
	Hicksville BOA, Southeast, 2011	Redevelop underutilized properties, revitalization of area						
	Hicksville Hamlet Study, 2002	beautification, streetscaping						
Jericho								
Locust Valley								
Massapequa								
Massapequa Park								
Muttontown	Muttontown Preserve Master Plan, 2010							
Mill Neck								
Old Bethpage								
Oyster Bay	Oyster Bay Hamlet Plan, 2006	quality of life, downtown revitalization						
	Eastern Waterfront Development	Consider a new waterfront district to promote mixed uses appropriate for a harbor village		Intercept and pre-treat stormwater at higher elevations			Encourage restaurants and cafes with outdoor seating in the waterfront area	
	Western Waterfront							
	Mill Pond Overlook							
Plainview								
Sea Cliff								
Seaford								
Syosset	Syosset Downtown Master Plan, 2003	downtown hamlet plan, aesthetic improvements, small amount of housing	traffic improvements beautification					
Woodbury								

**SUFFOLK COUNTY**

<b>SUFFOLK COUNTY</b>								
	Suffolk County Master Plan, 2012							
	Smart Growth Policy Plan for Suffolk County	Create land use development according to the principles of smart growth with community input prior to the design process. Encourage re-developments of regional significance. Stockpile density credits	Design County road improvements to strengthen downtown ambiance. Locate all municipal offices in downtowns. Prioritize funding to the local safe street and traffic calming program.	Reduce sewer connection fees in targeted Smart Growth developments to encourage development and redevelopment. Restrict new sewer districts to Smart Growth. Continue participation in coastline studies.			Continue county housing initiatives to promote affordably priced homes. Re-use of strip shopping center property for single family housing units.	
	Selected Growth and Development Areas Plan		Allow for transportation improvements based not on the current need but on the potential build out scenario of an area.					
	Suffolk County Save Open Space Bond Act Workforce Housing Transfer of Development Rights Implementation Plan, 2005, 2006	Reduce sprawl		Continue and/or expand groundwater preservation initiatives			Create affordable housing	
	Three Village Hamlet Study	Cluster development and ensure development that is fitting with the existing character of the community.	Improve roadways. Take pedestrian safety measures. Install bike lanes and sidewalks.	Restrict development where groundwater be filled and built upon. ie. Steep slopes.	Evaluate the need to extend sewers. Extend the SUNY STP.			
	East End Transportation Study	TOD land-use changes to allow for concentrating employment and new housing growth in areas served by public transit.	Creation of a rail-bus network. Development of more shared parking arrangements.					
	SEEDS (Sustainable East End Development Strategies), 2008	Encourage development in existing centers, establish development and preservation areas with much of the east end's farmland and open space protected from development	LRT connection between north and south forks, ferry service across Peconic Bay, intersection calming and walkability and bikeability measures in the town centres.					
	Central Pine Barrens Comprehensive Land Use Plan, 1996	There shall be no development in the core area save non-natural vegetation altering agriculture and associated structures. Core area preserved through land acquisition, gifts and TDR. The compatible growth area will recharge all water on site and minimize clearing.						
	The Route 110 Corridor: An Intermodal Transportation and Land Use Plan, 2000		Examine a combination of express north south buses, light rail, intelligent passenger cars, care sharing, and TubeXpress subterranean freight movement.				Create the 110 Techway including an electronic town hall, advanced information dissemination, fiberoptic zone, distance collaborative educational complex, etc....	
	Sunrise Highway Corridor Study Islip and Brookhaven Towns 2009	continue an inter-municipal, interagency cooperative planning approach, reinforce nodes, encourage mixed uses within nodes, discourage retail sprawl, encourage redevelopment, link development to existing sewer districts, consider the adoption of a uniform overlay district within both towns, plan for appropriate non retail uses	encourage traffic impact studies, implement transportation demand management, improve access management standards, seek innovative funding and traffic mitigation development options					

	Study of Railroad Usage by Residents of Multi-Unit Housing Complexes Near Railroad Stations 2001		The railroad should continue to uprade its station facilites and partner with the towns and villages to create attractive, vibrant and safe areas around RR stations, The LIRR and the towns and villages should improve pedestrian access to railroad stations			Encourage the construction of new multi-unit housing near railroad stations, especially railroad stations adjacent to business districts, encourage the redevelopment of abandoned, underutilized or "eyesore" properties near railroad station for multi-unit housing, encourage the construction of individual apartments above existing commercial buildings located near RR stations		
	Suffolk County Strategic Initiatives for Economic Development						econ dev opportunities for suffolk	
	Suffolk County TDR Study 2011							
	Open Space Acquisition Policy plan for Suffolk County 2004	preservation of scenic vistas, and open areas, farmland preservation, passive recreation, active recreation, cultural and historic resources, downtown open space		preservation of groudwater, coastal resources, wetlands, watersheds and stream corridors, plant and animal habitats				
	Suffolk County Smart Growth Committee Report (Analysis and Prioritization of the Recommendations of the SGPPFSC 2000) 2003	encourage the development of area-wide or sub-regional Smart Growth Plans that provide a plan for a reallocation of density to permit compact centers of development and open space. Allow TDRs from surplus county owned parcels and possible open space aquisition programs. Enable the purchase of non-farm development rights and creation of a land acquisition installment purchase program.		Protect drinking water through smart growth. Where appropriate, encourage the establishment of new sewer districts and extentions of public water in Smart Growth areas		Encourage the provision of a variety of housing choices		
	Joint Executive/Legislative Task Force on Transportation Issues in Suffolk County 2001		provide public transportation within the financial capabilities of government. Use engineering solutions and traffic calming techniques to move people to work, shopping and recreation with the least disruption to the neighborhood and the environment					
East End	Ending Gridlock: East End Transportation Futures		To make policy recommendations concerning transportation on the East End including the need for a rural transit network, to expand usage of the LIRR corridors, create a study on the proposal to create a regional transportation authority, to reverse established policy of encouraging large lot sprawl, improve the S92 bus service via coordination with ferry and local rail service, creation of a regional internet transit website, expanding bike lanes into a regionally coherent network, create passenger service from the south shore to local ferry transport, and suggestions to create better management of existing road networks					
<b>TOWN OF HUNTINGTON</b>								
	Comprehensive Plan Horizons 2020							
	Huntington Management Initiative		Roadway improvements including sidewalks. Install stop signs. Designate a specific areas for pedestrian travel to not interfere with the traffic. Create a by pass.					
	Route 110 Transit Plan		Assessment of transit options to expand Route 110 corridor service.					
	Local Waterfront Revitalization Plan, 2001							
Centerport								
Cold Spring Harbor								
Commack								
East Northport								
Greenlawn	Greenlawn Business District Design & Improvement Plan, Greenlawn Civic Association, 2003							
Huntington	Huntington Village Parking Study, 2012	underway						
Huntington	Gerard Street Visioning, 2000	new plaza fronted by parking garage liner shops/restaurants	roundabout and median for traffic calming and safer pedestrian crossing, parking garage					
Huntington Station	Huntington Station Revitalization , Plan 2001							
	EDC Plan 2004	mixed use buildings on underutilized parking lots						
	Huntington Station BOA Plan, 2010	Redevelop underutilized properties, revitalization of area underway						
Lloyd Harbor	Local Waterfront Revitalization Plan, 1999							
Melville	Route 110 Partnership Plan, 2000							
Northport	25A Corridor Design Plan 2010	unify zoning between town and village sides of 25A						
<b>TOWN OF BABYLON</b>								
	Comprehensive Plan, 1996							

	Route 110 Transit Plan		Assessment of transit options to expand Route 110 corridor service.					
Amityville								
Babylon	Oak Beach Park, 2002	Replanning options for waterfront recreational facility.						
Copiague	Copiague Vision Plan-2009	Mixed-use development should be allowed and encouraged in the downtown, with ground floor retail and upper floor residential or office space, similar to the two new mixed-use buildings at Great Neck Road and Oak Street.	Implementing a peak-hour curbside lane on main roads.				New for-sale housing geared for active adults (55+) could also be developed successfully in downtown Copiague if positioned and priced appropriately to take advantage of the convenient location and retail amenities. These market-rate units would likely be priced for senior households earning over \$75,000 per year, depending on the available down payment	
Deer Park	Deer Park Comprehensive Plan		Provide opportunities for future public transit services, such as creating bus loading terminal areas, warming shelters, adequate turning areas, and an intra-complex transportation system, such as a jitney service	Implementation of a central water and sewer system throughout the village.				
East Farmingdale	Republic Airport Redevelopment Plan, 2012	New TOD around reopened station						
East Farmingdale	Republic Airport Planning Study, 2009	New TOD around reopened station						
Lindenhurst	Village of Lindenhurst Downtown Business District Plan		Enlarge and improve municipal parking lots. Add striping and attractive identifying signs and landscaping. Create a parking plan. Add in pedestrian safety measures. Improve the appearance and function of the elevated railroad. E431				Increase mixed-use housing	Encourage Live-work units. Increase in non-retail uses for vacant properties. Create a Business Improvement District.
North Babylon								
West Babylon								
Wyandanch	Wyandanch Hamlet Plan	Provision should be made for access to rear of buildings for trash storage/transport, deliveries/loading, and general parking; when available	Transit orientated development which calls for new buildings to be located around public transportation resources		Implementation of grease traps in sewage systems to extend the lifetime of septic tanks		Changing specific use buildings into mix-use buildings which offer habitat for both residential and commercial uses.	implementing Sub-surface flow wetlands which make for less energy usage
	Wyandanch Shared Vision Plan							
	Wyandanch Intermodal Transit Study							
<b>TOWN OF SMITHTOWN</b>								
	Comprehensive Plan	Breaking up of 'strip zoning'	Add a lane in each direction between the Northern State Parkway and North Country Road (NYS 25A), a grade separation at Middle Country Road (NYS 25), traffic sensors and travel information signs, and coordinated traffic signals					Adding on-street parking in the central business area. Broadwater Energy LLC And Broadwater Pipeline LLC submitted a proposal to the Federal Energy Regulatory Commission (FERC) to construct a floating liquefied natural gas terminal in Long Island Sound
	Energy Assessment of Smithtown, 2010							facility energy assessment
	Route 25 Corridor Study							
Kings Park	Kings Park and Smithtown Sewer Plan, 2009							
Kings Park	Kings Park Psychiatric Center Redevelopment, Nissequogue Park Foundation, 2010							
Nesconset								
Saint James								
	Kings Park and Smithtown Sewer Plan, 2009							
Smithtown	Downtown Master Plan, 2003							
Smithtown	Main Street Traffic Calming Plan 2012		Reduce lanes to reduce speeding, increase pedestrian safety, add roundabouts					
<b>TOWN OF ISLIP</b>								
	Comprehensive Plan Update 2011							
	Green's Creek & Brown's River Watershed Management Plan 2007							
Bayport								
Bay Shore	Bay Shore Marina Revitalization Plan 2007	Redevelop excess parking into recreational uses						
	Bay Shore Revitalization 2004							
Bohemia								
Brentwood	Vision Plan for Brentwood, 2007							
Brightwaters								
Central Islip	Vision Plan for Central Islip, 2012	underway						
East Islip								
Great River								
Hauppauge	Hauppauge Industrial Park Master Plan 2011			Expand sewage treatment facility to accommodate park growth and economic development opportunities.				
Islandia								
Islip								
Islip Terrace								

Oakdale	Oakdale Hamlet Center Vision Plan 2008	Mixed use buildings, pedestrian spaces. Convey a downtown character with new construction and re-development of existing sites.				Diversify housing stock with dwellings for smaller households.		
Ocean Beach	Local Waterfront Revitalization Plan, 2010							
Ronkonkoma	Improving the Transportation Connections between Ronkonkoma Train Station and MacArthur Airport		improvement of intermodal connections between station and airport. Address the parking issues at the LIRR Ronkonkoma station					
Sayville								
West Islip								
West Sayville								
<b>TOWN OF BROOKHAVEN</b>								
	Townwide Sewer Study, 2011							
	Blight to Light, 2010	Town-wide Blight Plan		Sewer analysis		LIHP \$4.5 mil housing grant program	Redevelopment overlay incentive district	
	Brookhaven 2030, 2009	Community-based planning, mixed use plan. Infrastructure improvements discouraging sprawl	Muti-modal transportation network provides mobility and access for all residents to work, recreation and shopping.	Preservation of many wetlands and water bodies. New methods of storm water management	Capping the landfill	Mixed housing types that meets age, income, and demographics of Brookhaven's population.	Create an increase in job creation/business: through the industrial development agency, in sustainable development, by technology transfer, in marine industry, around hamlet centers, through tourism, in agricultural industry.	Prepare for global climate change, reduce dependency on fossil fuels, and become more sustainable.
	Mount Sinai to Wading River Land Use Plan, 2006	The Plan recommends that the 17-acre former Rocky Point Drive-In/Driving Range property be maintained as commercial recreation. This provides the potential for the reintroduction of commercial recreation in the future.	Focusing commercial development in downtown areas and hamlet centers orientated towards pedestrian and bicycle traffic.	In order to protect drinking water the Central Suffolk Special Groundwater Protection Area limits expansion of strip commercial development in recharge watershed areas		allowances regarding future land restrictions be made for single family and single-family attached housing (with no age restricted units), which not only will allow for a tighter development cluster but can provide multi-generational housing options to younger residents.		
	Mount Sinai to Wading River Community Visioning, 2006	Refurbishing old strip malls into affordable housing rather than developing on vacant parcels	Developing on-street parking to calm traffic.	Additional drainage along 25A using rain gardens to manage stormwater and runoff		affordable housing should be built in areas close to transportation and shopping services and that use sewer systems	Using the 800 acre DeLalio sod farm as a solar energy farm	
	CR 51 Land Use Plan, 2007	twenty-five residentially zoned acres bordering the district on Route 347 off Moriches Road, recommended as a planned residential complex with pedestrian access to the adjacent Brooktown Plaza shopping center		Construct and improve storm water runoff retention and filtration facilities, and eliminate or reduce intensity of development on steep hillsides.			Adding markers, museums or other educational tributes to the maritime heritage	
	Three Village Hamlet study, 2006			Disencouraging the landscaping trend toward extensive lawns and in-ground irrigation, which stresses the public water supply delivery system.			Ensure that resource-dependent economic activities are environmentally sustainable and compatible.	
	Three Village Strategic Conservation Plan:2030, 2009							
	Tri-Hamlet Renaissance Project Plan, 2012		relieve congested roadways, increase grade crossings at railroad tracks, increase number of highway and parkway access points	reduce level of nitrogen in groundwater and road ways. Sewers for residential and commercial properties		Restricting housing codes for uses such as sober homes and other uses beyond the original design of the house and property.	Increase their commercial base	
	Middle Country Road Land Use Plan, 2006	Multi-family residential areas being placed in the hamlet centers to create a walkable community	?!?Construction of a grade separated crossing (bridge) at the intersection on middle country road, a general widening of Middle Country Road (NY25) to accommodate two travel lanes in each direction along with a center two-way left turn lane	requiring more stringent regulations for wastewater discharges in Hydrogeologic Zone III (Central Pine Barrens)		Offer a mix of housing types and styles including affordable and workforce housing opportunities within walking distance of the hamlet centers.		
	Forge River Management Plan, 2012							
Bellport	South Country School District Hamlet Plan, 2003		Add sidewalks and bike lanes. Add traffic calming features. Re-route buses.			Provide Live-wrk units	Fill vacancies in commercial uses including some non-retail businesses.	
Blue Point								
Brookhaven								
Centereach	Sustainable Community Plan, 2005	Bring a number of full service family style restaurants to the community, especially higher end restaurants. Develop a restaurant row at Centereach Mall and near Independence Plaza where people can access a number of restaurants in one location.	Creating high density communities to promote walking or bicycling as primary means of transportation	using graywater and rooftop rainwater-harvesting systems to recycle water and using natural drainage systems				Incorporation of passive solar and natural cooling principles enhances energy efficiency
Coram	Middle Country Road Land Use Plan, 2006							
Davis Park								
East Moriches								
East Setauket								
Eastport								
Farmingville	Community Redevelopment Plan, 2010	Where possible, move existing stores or build new stores closer to the street, with parking lots behind rather than in front. Consider development or temporary uses on some of the larger parking lots, such as Expressway Plaza and Farmingville Plaza.	Build paths to ensure that residents can walk or bicycle from their neighborhoods to parks and the downtown center. Install sidewalks where they do not now exist and repair sidewalks that are broken or buckled.				Encourage small-business development while discouraging the building of new strip shopping centers and large-format retail outlets.	
Gordon Heights	Middle Country Road Land Use Plan Gordon Heights Land Use Plan 2010							
Holbrook								
Holtsville								

Lake Grove								
Manorville								
Mastic	Montauk Highway Land Use Plan, 2004	Mixed use nodes at intersections of Titmus and CR80 and Mastic Road and CR80	traffic calming, pedestrian improvements					
Mastic Beach	Mastic Beach Revitalization Plan, 2005	Designate the Mastic Road Neighborhood Center & the Neighborhood Road Business District as Downtown Redevelopment Districts	Commission a Traffic Circulation and Parking Plan for each Business District		Implementation of a sewage treatment plant for the Downtown Planned Development District with mixed uses		Creating cooperation among competitive businesses which allows them to engage in activities that they would not be able to do on their own	
Medford	Medford Visioning Plan, 2009							
Middle Island	Middle Country Road Land Use Plan							
Miller Place	Mount Sinai to Wading River Land Use Plan							
Moriches								
Mount Sinai	Mount Sinai Hamlet Plan 2002							
Mount Sinai	Mount Sinai to Wading River Land Use Plan							
Patchogue	Village of Patchogue Downtown Business District Study	Continue revitalization efforts in the downtown district. Encourage infill development to fill in the gaps in the downtown.	Align roads to make for safer passage. On street parking increase. Include more green spaces in parking lots. Increase parking near the theatre. Commission a traffic flow and parking plan. Make Village walk-friendly. Review traffic calming techniques.			Consolidate and screen dumpster locations. Encourage owner-occupied residential units within walking distance of the downtown. Encourage apartments over store fronts.	Improve and protect the viability of existing businesses in the downtown district. Improve the economic base of the Village by creating jobs and expanding the tax base. Encourage non-retail uses and arts.	
Patchogue	Patchogue River Maritime Center Plan		Enhance different forms of public access to the Patchogue River, Patchogue Bay, and Great South Bay and Fire Island.	maintain and protect the viability of existing water-dependent and water-enhanced uses along the waterfront.			Improve the economic base of the Village by creating and expanding the tax base. Increase the value of Patchogue River and Bay shoreline areas as commercial and recreational assets.	
Patchogue	Revitalization Plan	Pedestrian-orientated development		developing ways to decrease impervious surface in the watershed in order to reduce the amount of paved surface and allow additional precipitation to infiltrate groundwater and reduce concentrated flow volumes into the river		support of a more compact neighborhood with a mix of uses and housing types	Developing a cohesive identity in order to attract retailers considering new locations	
Port Jefferson	Village of Port Jeff Comprehensive Plan 2011							
Port Jefferson	Local Waterfront Revitalization Plan							
Port Jefferson	Incorporated Village of Port Jefferson Marina-Waterfront District Study	Changes in zoning uses to accommodate for marina based character	Widen roadways to allow for easier access for both residential and commercial uses.	divide the Marina-Waterfront into 2 districts to allow for more control			Changes in zoning to allow for more economic development around the marina.	
Port Jefferson Station	Comsewogue Comprehensive Plan	Development of compact mixed-use environments to facilitate walking and reduce auto trips	install a ramped overpass over NYS Route 347 near the intersection with NYS Rte. 112			The provision of apartments over the stores and multi-family housing near the station and restaurants could meet the needs for affordable housing for seniors and also help to retain the young from leaving the community		
Port Jefferson Station	Upper Port Revitalization Plan 2010							
Ridge	Middle Country Road Land Use Plan, 2006							
Rocky Point	Mount Sinai to Wading River Land Use Plan							
Rocky Point	Rocky Point Business Sewering Feasibility Study, 2009							
Rocky Point	Rocky Point Vision for Downtown Revitalization, 2008		On street parking, clearly marked wide sidewalks, crosswalks in mid-block locations and street landscaping.		Improvements made to the sewer system	Utilize a variety of housing types like townhouses, apartments, accessory dwelling units, and live-work spaces.	A mix of retail and office space located in the downtown.	
Ronkonkoma	Ronkonkoma Hub Plan, 2009							
	Portion Road Corridor Land Use Plan, 2008							
	Improving the Transportation Connections Between Ronkonkoma Train Station and MacArthur Airport 1999							
Selden	Sustainable Community Plan, 2005		Create a pedestrian overpass/bridge to allow people to safely cross Middle Country Road.		Explore creating a public/private partnership where the Town and/or Suffolk County would contribute up to half of the cost of the sewer district and access federal funding for additional project support	Developing workforce housing to open first-home opportunities for young professionals and families	A green roof system incorporating solar panels and appropriate plant life on top of large open roofs of shopping centers to provide cleaner and cheaper energy	
Setauket	The Setauket Village Center and Village Green	include mixed-use zoning	Address the parking issues, Redesign of 347. Roadway repaving and repair.				Economic development to support small businesses	
Setauket	North Country Road Restoration Plan for the Hamlet of Setauket		Install street lights at major intersections. Reduce the large-radius turns. Reduce road shoulders. Add bike lanes. Change street lighting to match the traditional nature of the community landscaping. Add crosswalks.	Repairs to existing drainage. Install curbing in areas where it will assist with drainage. Rehabilitate the recharge sump.				
Shirley	Montauk Highway Land Use Plan, 2004	Mixed use node at intersection of William Floyd and CR80	traffic calming, pedestrian improvements					
Shoreham	Shoreham Hamlet Plan, 2005							
Shoreham	Mount Sinai to Wading River Land Use Plan							
Sound Beach	Mount Sinai to Wading River Land Use Plan							
Stony Brook	West Meadow Beach Restoration, Master Plan, 2004							
Upton	Solar Farm Study, 2009							

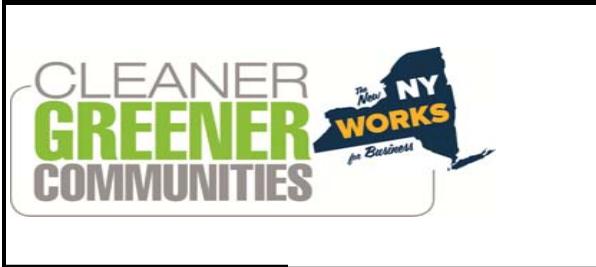
Wading River	Mount Sinai to Wading River Land Use Plan							
Yaphank	Legacy Village, 2007							
<b>TOWN OF RIVERHEAD</b>								
	Comprehensive Plan, 2003	Implementing a system of parks and greenways that provide abundant recreational opportunities for all age groups	Orienting hamlet centers to be accessible by public transportation method	Require that private wells are sited and built so as to avoid the risk of being negatively impacted from nearby development		Excluding accessory units from property tax value to add incentive to build rental accessory units in their houses or on their properties	In addition to the vineyards and wineries, promote the growth of other forms of agrotourism	
	Last Chance Riverhead, Citizen's Master Plan 2003							
	Local Waterfront Revitalization Plan, 2008							
Aquebogue								
Calverton	Calverton Redevelopment Plan, 2012							
Calverton	Calverton Access Rehabilitation, 2010		Study performed to improve rail access to Calverton park and open up rail spur.					
JamesPort								
Riverhead	Town of Riverhead Comprehensive Plan, Downtown Component 2003	Determine necessary modifications to the Town's DC-1 zoning relative to highyl dense areas in the downtowns	Evaluating and deterring best use of existing parking and potential sites of additional parking. Pedestrian improvements			Increase current limit on residential or multifamily units, neighboring residential uses.		
	Parking Management Plan, 2009							
Riverhead	East Main Street Urban Renewal Plan Update 2008							
<b>TOWN OF SOUTHAMPTON</b>								
	CR39 Corridor Plan							
	Area Study	Taking advantage of compact building design	Prohibiting commercial vehicles other than local deliveries on certain roads			Amending the town zoning code to allow small-scale, multi-unit complexes for the elderly		Implementing geothermal (solar energy) systems throughout the town
	Town of Southampton Community Preservation Project Plan 2005							
	Eastport-Speonk-Remsenburg-Westhampton Area Study 2004							
Bridgehampton	Hamlet Center Plan		Implementing more shared parking lots instead of parking lots that are private to one business					
East Quogue	G.E.I.S.	Protecting farmland to the maximum extent possible	making more road connections in order to reduce traffic congestion on major roads	When on-site wastewater systems are proposed, avoid groundwater pollution and utilize innovative systems that maximize nutrient removal	Minimize construction and demolition waste by returning, reusing, and recycling job-site waste	Filling vacant parcels with a variety of housing options	Preserving farmyards	Specify materials with low embodied energy (the energy used in resource extraction, manufacturing and shipping) while building
Hampton Bays	Hampton Bays Hamlet Plan, 2002							
Noyac	Noyac Hamlet Center Plan 2004							
Quogue								
Remsenberg								
Riverside	Riverside Hamlet Center Plan 2005							
Sagaponack								
Sag Harbor	Gateway Plan							
Sag Harbor	Planning Strategies for the Inc. Village of Sag Harbor (with an emphasis on the Commercial District)2008							
Sag Harbor	Local Waterfront Revitalization Plan, 2006							
Southampton	Village of Southampton Master Plan							
Southampton	Village of Southampton Sewer Plan							
Speonk								
Water Mill	Hamlet Center Strategy	Use civic participation to help facilitate maintenance/ approvals	Eliminating turning movements on major roads	Establishing a aquifer protection zone which controls the lands that have been designated as water catchment areas		Providing housing options that fit the need of all levels of income	promoting low-impact, small-scale light industrial and office development	
Westhampton								
Westhampton Beach	Westhampton Beach Master Plan						office development	
<b>TOWN OF SOUTHOLD</b>								
	Comprehensive Plan, 2006	Purchasing farmland development rights to preserve farmlands	Providing bussing to various town services and programs			Providing public services and infrastructure to support the development of housing	Making the area a year round tourist attraction	
	Comprehensive Plan Update Southold 2020 -2013							
	Southold Riverfront Revitalization Plan, LWRP							
Cutchogue								
East Marion								
Fishers Island	Fishers Island Strategic Plan							
Greenport	Village of Greenport Hamlet Plan	Preserving open space by focusing commercial and residential growth in the hamlet center	Evaluating and correcting all vision impairments on roads			Diversifying houses in the area(e.g. townhouses, single-family housing, multi-family housing, ect.)		
Greenport	Village of Greenport Economic Plan							
	Village of Greenport, Local Waterfront Revitalization Plan, 1999							
Laurel								
Mattituck								
New Suffolk								
Orient								
Peconic								
Southold								
<b>TOWN OF SHELTER ISLAND</b>								
	Comprehensive Plan							
Shelter Island								
Shelter Island Heights								
<b>TOWN OF EAST HAMPTON</b>								

	Comprehensive Plan, 2005	Adopting open space regulations to combat clustering	Encouraging the use of buses shuttles and bikes	Considering groundwater quality when designating areas worth protecting		Lobbying for state legislation to create a ½ % real estate transfer tax to fund affordable housing initiatives in conformance with an approved Town Housing Plan.		Utilizing renewable energy sources
	Master Plan, 2004							
	Local Waterfront Revitalization Plan, 2007							
	East Hampton Areas of Statewide Significance, 2010							
	East Hampton Active Recreation Facilities Plan, 2001							
Amagansett	Amagansett Plan		Adding turning lanes on roads	Establishing a protected drinking water area		Making certain areas suitable for cheaper housing		
	Amagansett Corridor Plan, 1999							
East Hampton	East Hampton Master Plan	Restricting development in areas with an abundance of resources	Restricting the amount of development around major roads	Protecting surface water quality		Providing year round affordable housing		
Montauk	Montauk Master Plan			Rezoning land that contains well fields to parks and conservation		Developing housing geared towards seasonal employees		
Wainscott	Wainscott Plan		Burying power lines in an effort to enable road expansions	Taking forceful measures to reduce human impact on ground and drinking water resources		Providing affordable housing		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
<b>1. Comprehensive Plans</b>	Long Island Regional Economic Council Strategic Plan	LIREDC			
	Long Island Regional Economic Development Plan Year 2	LIREDC			
	Long Island Regional Planning Council 2035 Visioning Initiative	LIRPC			
	Long Island Regional Planning Council's Sustainable Strategies for Long Island 2035	LIRPC			
	Long Island Comprehensive Economic Development Strategy	LIRPC	Develop and promote targeted initiatives and identify specific projects to address the distressed areas of Long Island, which pose a significant impediment to economic growth. This plan is build on the LIRPC Sustainable Strategies for Long Island 2035.		
	Long Island Carbon Footprint Project	All Long Island Communities	ICLEI baseline greenhouse gas inventory for the year of 2005, completed in 2010.		Rauch Foundation
	Long Island GHG Inventory	All Long Island Communities	NYIT baseline greenhouse gas inventory for the year 2009 underway, to be completed in Dec. 2012.		Rauch Foundation
	New York State Smart Grid Consortium (NYSSGC)		State vased organization providing a better understanding of opportunities offered by smart technologies in the modernization of the electric grid. As the state works to replace dated infrastructure, imcorporate new communication technologies to increase operating efficiency, and maintain reliability.		
<b>2. Local Business Development Programs/ Marketing Programs</b>	Long Island Green Homes Consortium	Long Island	Consortium of towns and organizations promoting Green Jobs / Green New York programs including NYSERDA's Home Performance with Energy Star progam and Small Business and Not-for- Profit loan program.		



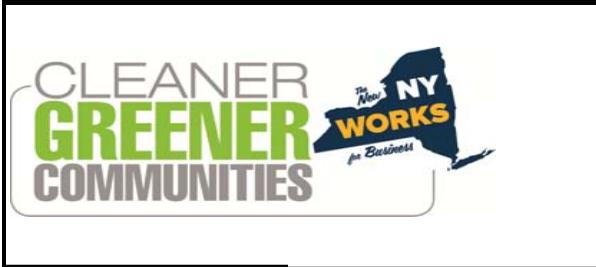
**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - [rolsen@cdcli.org](mailto:rolsen@cdcli.org)  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
	Industrial Development Agency (IDA)	Suffolk County, Nassau County and 7 local IDAs	Provides financial assistance for expansion, new construction and equipment purchase for profit and not-for-profit projects.		
	Suffolk County and Nassau County Inventors and Entrepreneurs Clubs	Long Island	Novice and Seasoned inventors will benefit from brainstorming sessions and networking to assist them in all aspects of inventing and business start up.		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
<b>3. Green Business / Green Technology Programs</b>	Advanced Energy Research and Technology Center (AERTC)	Long Island	Located in Stony Brook Research and Development Park, AERTC uses a public-private partnerships to commercialize new technologies, collaborate with established companies in R & D and foster the growth of start-ups. Projects include the Smart Grid demonstration project, two DOE Energy Frontier Research Centers - one in superconductivity at Brookhaven National Laboratory and as second in battery technology lead by Stony Brook.		
	Accelerate Long Island	Long Island	Region-wide initiative uniting several major research institutions and other organizations to commercialize discovery and innovation by matching scientists with entrepreneurs and early stage venture capitalists to bring promising products manufactured here to market.		
	Smart Grid 3	Long Island	A Stony Brook - Brookhaven National Laboratory collaboration to establish Long Island as a national center for energy research, development and manufacturing, bringing added regional benefits of lower power costs, improved research capability and training for high tech students.		
	Advanced Energy Research and Technology Center (AERTC)	Long Island	Offering educational classes and certifications to create workers with credentials. Courses include LEED training, BPI certification, Certified Green Professional training, and AEE Certified Energy Manager Certification.		
	Pharmaceutical Manufacturing	Long Island	Major expansion of the region's largest pharm. firm, Amneal Pharmaceuticals, which has 85 drugs approved or in the federal pipeline and requires a larger facility to retain and create emerging industry jobs and partnerships with research institutions.		
	Clean Energy Business Incubation Program (CEBIP)	Long Island	CEBIP will mentor entrepreneurs to establish successful enterprises to bring their technology to the market. They will incubate green technologies to help develop and commercialize them, which will create high paying clean tech jobs that address current and future clean energy needs. The solutions must critically lower the cost of energy production. Entrepreneurs will have the ability to work with expert faculty of Stony Brook University and expert staff at BNL.		
	Center for Emergent Superconductivity (CES)		The objective is to explore fundamental research issues which will overcome key barriers leading to the viable application of high temperature/high current superconductivity by enabling the design of superconducting materials with optimal physical and critical properties. This will improve the infrastructure through increasing electricity demand		



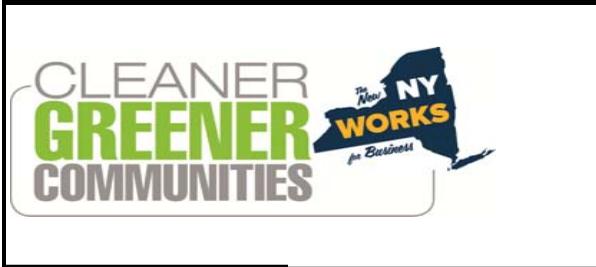
**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - [rolsen@cdcli.org](mailto:rolsen@cdcli.org)  
631-471-1215 ext. 146**

<b>CATEGORY</b>	<b>PROJECT/ PROGRAM/ POLICY</b>	<b>COMMUNITIES / ORGANIZATION</b>	<b>DESCRIPTION</b>	<b>MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE</b> &	<b>Comments from Working Group</b>
	CSHL Advanced Drug Testing		New Cold Spring Harbor Lab that will establish the region as a bio-medical research center by raising the testing of cancer drug therapies to a higher level that would transform the way treatments are developed and administered.		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
<b>4. Green Jobs Programs / Training</b>	EngINE	Long Island	A public-private partnership between Hofstra and Stony Brook Universities to boost the number of engineering graduates whose skills are essential to meeting our ambitions to be a globally-competitive center of high-tech research and manufacturing.		
	Workforce Innovative Netowrk (WIN)	Long Island	A network of local agencies, higher education and research institutions, businesses and other not-for-profits that would dramatically improve how Long Island indentifies and educates potnetial high-skilled workers including high school students- for careers om science, technology, engineering, and math industries in a diverse region.		
	LIFT Training	Long Island	An educational pipeline from K-2 to the STEM workforce through BOCES and upgrading the skills of incumbent workers, this intiative is focusing on an important new high-tech oppurtunity that cross-cuts several research and manufacturing sectors. It will boost the capabilities of local manufactureers by providing small and mid sized companies with access to prototype equipment and design tools		



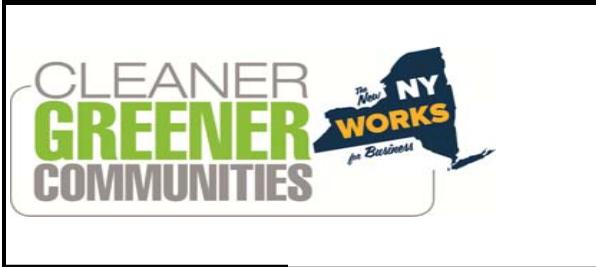
**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE	Comments from Working Group
	Farmingdale STEM	Long Island	The STEM Diversity Roundtable and Center is focusing on minorities and other under-represented in the workforce, aiming to inspire their interest in STEM studies, and has recruited high school students for its new Certified Health Record Specialist Program in collaboration with students have not been accepted to college.		
	Long Island WIB	Long Island	Initially targeting the health care sector, the initiative is upgrading the IT skills of unemployed workers in sectors where a gap exists between the available workforce and the needs of industry. Town of Hempstead already has met with local employers and the new Hofstra University Medical School to design the curriculum. Next phase will involve paralegal training through Hofstra Law and business Schools.		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
<b>5. Green Housing and Mixed Use Development Programs and Incentives (Improve H+T Index)</b>	Wyandanch Rising	Wyandanch	Continued infrastructure support for a complete redevelopment of Suffolk's poorest minority community, central to a Babylon Town Smart Growth plan to add jobs, housing, businesses, and street beautification centered down its rail line. This project will be developed with LEED ND standards.		
	Wincoram Commons	Brookhaven	A model Smarth Growth project that will revive a blighted and deteriorated site. Redevelopment will replace a vacant movie theater with a mixed use, transit oriented development. Funding will support infrastructure improvements including a sewer connection and expansion as well as wetland mitigation. Project intergrates smarth growth principles, pedestrian oriented design and vibrant community life.		
	Hempstead Village Renaissance	Hempstead	A mixed use project involving 3,400 new housing units and 700,000 square feet of commercial, entertainment and retail space around the county's busiest multimodal transit center that would generate thousands of jobs.		
	Ronkonkoma-MacArthur Transit HUB	Ronkonkoma	A collaboration of the Town of Islip, Town of Brookhaven and Suffolk County to provide a sewage treatment plant that will allow construction of a Smart Growth transit oriented village in a distressed community and will strengthen ties between Suffolk's largest rail station and a regional airport in a commercially critical area.		
	Thought Box 1 - Hickville	Hickville	Regionally replicable model that brings the Accelerate Long Island concept to a downtown transit hub, with affordable housing, offices, labs, recreation, and commercialization services under one roof for fledgling high-tech ventures.		
	NYS Homes & Community Renewal	Statewide	Adopted Green Guidelines for Low Income Tax Credit Programs (similar to Enterprise Green Communities)		
	HUD Approved Housing Counseling Agencies	Various organizations	Provide pre and post purchase counseling to homeowners on home ownership, housing affordability, financial literacy and location efficient housing		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - [rolsen@cdcli.org](mailto:rolsen@cdcli.org)  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
	Employer Assisted Housing Program	Long Island	Assist businesses to recruit and retain quality workers. Employees of a participating business are eligible to receive financial assistance towards the purchase of a home as well as free home buyer counseling.		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE	Comments from Working Group
6. Investment in Natural Assets	EPCAL Agri-Park	Calverton	Long Island Farm bureau, Cornell Cooperative Extension and other East End partners will study the feasibility of a state-of-the-art cold storage and distribution operation in the heart of our food production region, accessible to rail that would boost profits for farmers, reduce costs for consumers and create a new industry for locally grown food		
	Bay Scallops Restoration	East End	With only 7% of expensive scallops being harvested, a large-scale seeding program will transform the industry increasing production for the region and NYC's gourmet markets stimulating both business and job creation.		
	Montauk Commercial Fisheries Infrastructure Improvements	East End	Two proposals to improve docking and processing facilities at separate locations in Montauk, the state's largest fishing port to keep the existing fleet from seeking services in other states and to induce other fleets to bring their business to our state. The lack of suitable dockside infrastructure clearly threatens the livelihood of hundreds of Long Island fishermen.		



**LI Projects, Programs and Policies Advancing Green Economic Development and Housing - return to Rosemary Olsen - rolsen@cdcli.org  
631-471-1215 ext. 146**

CATEGORY	PROJECT/ PROGRAM/ POLICY	COMMUNITIES / ORGANIZATION	DESCRIPTION	MANDATORY or VOLUNTARY, RESTRICTIONS SCOPE &	Comments from Working Group
<b>7. Infrastructure Investments for Green Economic Development</b>	Business Investments	Long Island	The cumulative impact of 9 key business development projects in identified critical sectors of the Long Island economy will retain and generate jobs and income for Long Island households and support the state, county and local economies. Incorporating innovative agricultural business initiatives, transportation, IT and electronics enterprises, the overall impact of these small and mid size business growth projects will continue to transform the economy and enhance diversification		
	Brookhaven Rail Terminal	Brookhaven	Expanding access to East End markets and reducing pollution and traffic congestion by boosting rail capacity and adding advanced storage facilities at a major high-tech freight HUB. It has shown it can help food production companies by bringing raw materials to the region by rail.		
	Sheltair at Report Airport	Farmingdale	New infrastructure as well as critical upgrades and expanded facilities provided by leasee, fixed based operator, that will boost the appeal and job creating ability at one of the regions major general aviation airports and address demand for industrial, warehouse and distribution facilities proximate to the airport. Will create high paying jobs.		
	Accessibility between bus and railroad where people work	Long Island	Increasing the accessibility between the bus or LIRR to make mobility easier for people who lack access to vehicles.		

**MEMORANDUM**

To Lindsay Robbins and Sangeeta Ranade Page 1 of 9

---

Subject Long Island Cleaner Greener Communities:  
DRAFT Sustainability Indicator Inventory Memo

---

From Diane Dale and Brian Goldberg

---

Date March 6, 2013

---

Attached is the submission of the DRAFT Sustainability Indicator Inventory Memo.

Please note the proposed inclusion on page 9 of one non NYSERDA-Approved indicator regarding walkability of town centers.

Kindly advise us regarding any questions or additional information needs.

1) NYSERDA-Approved indicators selected for inclusion in the Plan;

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
<b>Greenhouse Gas Emissions</b>					
9A	CO2e emitted per capita	(GHG emissions in CO2e/population of region)	Regional Tier II GHG Inventory (2012)(baseline 2010)	Reduction of the region's CO2 emissions is a key goal of both NYS and the region. This overarching indicator can help measure impacts of reduced fuel combustion strategies implemented throughout nearly all sectors.	36,107,459 MTCO2e for Nassau and Suffolk (2010 GHG inventory)  2,870,200 for the population (NYMTC RTP 2010)  <b>The per capita GHG emitted is 12.58 MTCO2e.</b>
9B	GHG emissions per \$ GRP (gross regional product)	(GHG emissions / \$GRP)	Regional Tier II GHG Inventory (2012) (baseline 2010); US Bureau of Economic Analysis (updated 2/6/13) Dec 2010 annual GRP	Emissions reduction and economic development are key goals of the region which are represented in this indicator. This tracks the resource efficiency of the economy.	36,107,495 MT CO2e / \$132,555,010,000 = <b>0.000272396 MT CO2e/\$ GRP</b> Or about <b>0.27 kg CO2e/\$ GRP</b>
<b>Energy (Use, Generation and Efficiency)</b>					
1A - Required	Regional energy consumption per capita (MMBtu)		Regional Tier II GHG Inventory (2012)(baseline 2010)	Required by NYSERDA	Nassau: 389.88 Suffolk 377.90 <b>LI total: 384.39 MMBtu per capita</b>
1D	Regional electricity grid fuel mix (MW of generating	Installed electricity generation capacity by type (high level	LIPA figures (2010)	This indicator reflects the region's interest and commitment to meeting Renewable Portfolio Standard (RPS) goals.	Information collected from most current LIPA Energy Plan <a href="http://www.lipower.org/pdfs/company/projects/energyplan10/energyplan10-c.pdf">http://www.lipower.org/pdfs/company/projects/energyplan10/energyplan10-c.pdf</a> p14;

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
	capacity by type)	calculation)			2010: Gas 43%, Nuclear 11%, Energy Efficiency 4%, Refuse 4%, Renewables 3%, Residual Oil 2%, Distillate Oil 1%, Purchases (ISO-NE, NYISO, PJM) 32%
1E	Reduction in annual energy use per end use	Sum of energy use reduction from energy efficiency projects (residential, commercial and industrial)	LIPA 2011	The region has prioritized and grown its residential energy retrofit programs over the past few years. This indicator will measure progress made by these programs in the residential sector as well as the commercial sector, which the region seeks to address through new initiatives.	Information to be pulled from LIPA's Efficiency Long Island Annual Report, e.g. for 2011 <a href="http://www.lipower.org/pdfs/company/papers/eli-annual2011.pdf">http://www.lipower.org/pdfs/company/papers/eli-annual2011.pdf</a> see page 5 of the PDF for commercial and residential savings achieved. This will provide a minimum figure assuming that some efficiency retrofits happen on the island without LIPA grants. (table 1 Net Impacts)  <b>185,211 MWh</b> (saved through LIPA rebate programs for electricity only). Savings for oil/gas associated with 2 programs expected from LIPA
<b>Land Use and Livable Communities</b>					
3A – Required	Per capita land consumption	Characterize land use according to MRLC's National Land Cover Database; compute amount of developed land; divide total region by population	Nassau County Planning Department Parcel Data, 2009; Suffolk County Planning Department Parcel Data, 2007	Required by NYSERDA	0.17 acre per resident.  (It should be noted that the parcel data shows 70% of LI's land as developed because people's backyards get counted too even if they're covered by trees)
3I	Available parkland per capita or acres protected	(Compilation of protected acres from multiple entities / population	Nassau County Planning Department Parcel Data,	Considered an important measure of community livability, health and well-being.	0.06 acre per resident

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
	through NYS DEC, other public, non-profit and private lands.	in region)	2009; Suffolk County Planning Department Parcel Data, 2007		
<b>Transportation</b>					
2A – Required	Total percentage of people commuting via walking, biking, transit and carpooling	(p 6 NYSERDA Common Indicators)	American Community Survey (ACS) 2011	Required by NYSERDA	Carpooled 8.11% <ul style="list-style-type: none"> <li>• 2-person carpool 6.45%</li> <li>• 3-person carpool 0.99%</li> <li>• 4-or-more person carpool 0.68%</li> <li>• Workers per car, truck, or van 0%</li> </ul> Public transportation (excluding taxicab) 11.07% Walked 2.09% Bicycle 0.26%
2B – Required	Vehicle miles traveled (VMT) per capita	(VMT in MPO areas + VMT in non-MPO area) / total pop	NYMTC/DOT/D MV (2005)	Required by NYSERDA	61,461,483 VMT (2005 NYMTC) / 2,762,551 (2005 NYMTC) =  <b>22.5</b> per capita VMT per day
2C	Number of alternative fuel registered vehicles	No calculation required	DOT Clean pass program (Dec 2012)	Indicator will help the region understand if alternative fuel vehicle use is helping to reduce dependency on fossil-fuels by tracking percentage of drivers using lower carbon vehicles.	The number of Clean pass vehicles as of December 2012 is 9791 for Suffolk County and 3297 for Nassau county for a total of <b>13088</b> vehicles. The entire state only has 16669.
2E	Percentage of jobs and housing within ½ mile of transit.	(Urb/Suburban Areas: .5 miles of transit / total population of region; Park and Ride: pop within 5	CTPP 2000 tract-level data; Census 2010 block-level data	Indicator will help to capture the impact of transit in promoting a key livability factors such as the number of living and working spaces within walking distance of transit.	<ul style="list-style-type: none"> <li>o 17.4% jobs (from CTPP 2000 tract-level data)</li> <li>o 14.4% housing units (from Census 2010 block-level data)</li> </ul>

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
		miles of transit / total pop; Inter-city transport: pop within 30 miles of transit/total pop) (1/2 mile buffer around rail stations and ¼ mile around bus stop			
<b>Waste Management</b>					
4A	Total solid waste generated per capita	Estimated using total tonnage of MSW, yard waste, and recyclables from municipalities, along with current publically available LI population data.	Long Island GHG Inventory 2012 (baseline 2010).	Indicator reflects the region’s goal to reduce costs associated with solid waste generation such as collection, transport and landfilling.	Approximately <b>0.8 tons/person MSW</b> generation per year was established.  Based on outreach throughout the region and with DEC, data is not available for other waste categories requested.
4B	Solid Waste diverted (i.e. not landfilled or exported) per capita	(Total regional solid waste diverted per year / pop of region)	NYS DEC 2008; Long Island GHG Inventory (2012) (baseline 2010)	Indicator reflects region’s goal to reduce direct and indirect costs associated with landfilling and to capture more value from waste through reduction, composting and recycling.	Recycling and Compost – .13 tons per person/yr  Waste to Energy - .5 tons per person/yr
<b>Water Management</b>					
5A	Water demand per capita	(Water demand by sector/total pop)	USGS, 2005.  Data obtained on a district level was gathered from individual water	This indicator reflects the region’s goal to preserve its aquifer and drinking water supplies for future generations while reducing energy associated with water consumption.  Water consumption rates in Long Island	Total region: 135 gallons per day per capita Nassau:149 gpd per capita Suffolk: 122 gpd per capita

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
			districts for 2011. It does not include private wells and the district population numbers may not be accurate.	vary considerably by district: from less than 100 gpd/capita to over 1,000 gpd/capita. This disparity is largely attributed to potable water use for landscaping and is the basis for several water conservation strategies.	
5B	Total number of impaired waters	(sum of bodies of water in region listed in part 1 and 2 of DEC Section 303(d))	NYS DEC, 2011	Indicator reflects the region's priority to protect the health of its coastal waters for tourism, community pride, fishing and overall environmental health.	Total region: 67 Nassau: 33 Suffolk: 34

Economic Development and Housing					
6A - Required	Housing + Transportation Affordability Index	None required.	<a href="http://htaindex.cnt.org/map/">http://htaindex.cnt.org/map/</a>	Required by NYSERDA	Less than 40% of income; 34,087 ppl (1.2%) 40% - 50% of income; 276,628 ppl (9.7%) 50% - 60% of income; 838,256 ppl (29.3%) More than 60% of income; 1,708,344 (59.8%)
6B	Job Creation Year-over-year job growth, by sector	(page 13 NYSERDA Common Indicators)	New York State Department of Labor, Labor Statistics (2012)	Selected because local job growth, especially Green Jobs, is an important regional goal as identified in the Regional Economic Development Council's strategic plan.	<a href="http://www.labor.ny.gov/stats/lon/pressrelease/index.shtm">http://www.labor.ny.gov/stats/lon/pressrelease/index.shtm</a>  See job creation chart below;

Industry	2012 Employment	Percent Change, 2011 vs. 2012
Total Nonfarm	1,263,000	0.2%
Total Private	1,058,100	0.8%
Goods Producing	126,900	-3.0%
Natural Resources, Mining and Construction	55,600	-4.1%
Manufacturing	71,300	-2.1%
Service-Providing	1,136,100	0.6%
Private Service-Providing	931,200	1.4%
Trade, Transportation, and Utilities	271,300	0.6%
Information	23,900	-2.0%
Financial Activities	75,700	5.3%
Professional and Business Services	164,800	1.9%
Education and Health Services	242,600	2.3%
Leisure and Hospitality	97,500	-2.0%
Other Services	55,400	2.6%

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
<b>Climate Change Adaptation</b>					
7B	Number of CRS communities	None required. The number of communities participating in the Community Rating System	FEMA CRS October 1, 2012	Indicator will help represent the region's priority of community resilience through management and mitigation of risks to people, property and infrastructure.	7 CRS communities
7F	SAIFI – System Average Interruption Frequency Index	(total number of customer interruptions / total number of customers served)	LIPA defines SAIFI as the measurement of the current rolling 12 month average number of times a customer was interrupted compared to the monthly 5 year average LIPA 2011 Performance Evaluation <a href="http://www.lipower.org/pdfs/company/trans/LIPAprformance-report.pdf">http://www.lipower.org/pdfs/company/trans/LIPAprformance-report.pdf</a>	Indicator reflects the region's ability to sustain consistency of emergency operations, economic activity and municipal operations during and after storm events	In 2011, LIPA ended the year with a SAIFI of 0.755 (15.9 months between interruptions). This is 3.9% higher than what was experienced in 2010 but 2.7% lower than LIPA's five-year average of 0.78.
<b>Governance</b>					
8A	Number of CSC communities	None required	DEC Climate Smart Communities program (February 2013)	Number of certified CSC municipalities demonstrates progress in promoting energy efficient communities that seek to reduce cost of living amidst rising energy costs and mitigate long term impacts of climate change	1 county 8 towns 4 villages

2) Non NYSERDA-Approved indicators which may be selected for inclusion in the Plan with targets pending availability of data:

NYSERDA Indicator #	Metric (unit)	Calculation Methodology	Data Source(s)	Justification for Selection	Calculation
<b>Transportation</b>					
(to be considered for NYSERDA approval pending data availability)	Walkability score or number of areas with a high ratio of accessible intersections per square mile	<p>The walkshed, the area that one can cover by walking a half mile along the streets, is calculated using ArcGIS Network Analyst for each downtown area. Then it is compared to the traditional straight-line half-mile buffer area around the same downtown:</p> <p>Walk Score = Walkshed Area / Straight-line Buffer Area</p>	WalkScore (2012); US Census	Walkability of a place is a somewhat intangible characteristic, but Walkscore measures the variety of destinations within a walkable distance- which indicates how many daily needs could be accomplished by walking. The number or intersections per square mile also indicates how walkable an area is as more intersections mean smaller blocks, usually slower traffic speeds, and more options for pedestrians in choosing a route to go somewhere.	<p>Average Downtown Walk Score: 0.52 (medium-high walkability) (<i>defined as ratio of the area of 1-mile walkshed to that of 1-mile straight line radius</i>)</p> <p>Based on observations by Regional Plan Association and sample areas in the tri-state region, a rule-of-thumb threshold for walkability categories: a walk score lower than 0.3 generally indicates low walkability, between 0.3 and 0.6 medium, and above 0.6 high.</p>

**MEMORANDUM**

To NYSERDA Page 1 of 9

---

Subject Long Island Cleaner Greener Communities:  
Draft List of Potential Strategies for Future Consideration

---

From Diane Dale and Brian Goldberg

---

Date April 2013

---

This memo contains a compiled draft list of proposed strategies generated by each LI CGC Working Group. While a number of these strategies have been prioritized and developed within the current CGLI Plan, others were not advanced into the final plan and should be considered in future sustainability planning efforts.

**DRAFT List of Potential Energy Strategies (provided by Energy Working Group)**

Car sharing – Zip Car successful in Hoboken, NJ
Benchmarking buildings – identifying energy density - NYC, DC, Philadelphia
Renewable energy credits – SRECS - used in other states.
Passive house standard.
Database of green buildings.
Green roof farms on schools
Vertical gardens
Hydroponics on brownfields
Municipal energy districts *
Community choice aggregation *
Capacity markets *
Collaborative energy projects *
Addition incentives for geothermal *
Self-sustaining energy for waste water treatment *
Utility bill disclosure (electricity, heating oil, natural gas) program at point of sale/rent
Program or regulation regarding plug loads *
Incentives for cogeneration on large facilities *
Comprehensive projects that include educational and behavioral change *
Cool/green roofs *
Policy for property tax assessments to exclude clean energy improvements *
Home Weatherization property tax breaks (or code updates?)
Extend Long Island Green Homes Program
Energy performance certificate at resale or rental
Energy performance ordinance / Required residential conservation standard (at resale or rental)
Demand reduction by improving energy efficiency of existing buildings
Energy conservation education for building owners, property managers and real estate community
Energy Audits and Retrocommissioning
Retrocommission large commercial buildings every 5 years
Use of energy dashboards for commercial spaces
Power Management Programs (computer sleep cycles and address phantom loads)
Measure electricity use in tenant spaces (sub metering requirement)

Development of the new Southampton Hospital site at Stony Brook Southampton as a showcase for green technology and sustainable planning.
Focus on data centers and IT infrastructure for energy conservation
Enhanced Sustainable and Energy Conservation Training of Design Professionals
Increase number of tradespersons trained in sustainability practices and actually hired on jobs.
Increase demand for residential development that meets NGBS or LEED standards through marketing/education programs directed at realtors.
Minimize air leakage through new building exteriors and homes (update codes)
Lighting Code Updates
Window Film Code Update
Residential HERS Rating code
Commercial energy conservation code requirement
"Solar ready" residential code requirements
Policy for property tax assessments to exclude clean energy improvements
Standardize permit process for energy projects
Expand Solar Feed-In-Tariff (FIT) 100 MW
Support for smart grid pilots
*Encourage Geothermal projects
*Encourage Cogeneration projects
Require feasibility study for renewables or CHP
Required percentage of projected energy demand supplied by renewables
Severe Storm Preparation
•Create a semi-annual conference re generate 100% renewable electricity for Long Island by 2030.
• <i>Mechanism to account for externalities when evaluating power generation, to encourage utility-scale wind (and other renewable) generation. (Received after the session)</i>
• <i>Encourage microgrids across Long Island where renewable energy is created. (Received after the session).</i>
• <i>As energy storage technology progresses , evaluate energy storage opportunities across Long Island to mitigate summer demand peaks. (Received after the session)</i>
•Develop fueling/charging infrastructure available to the public.
•Incentives/rebates for private charging stations
•Incentives for vehicles (sales tax, fee reductions, parking preference)
•Preferential electric rate for electric vehicles

•Southampton Hospital as green tech showcase
•Standards for IT infrastructure (data centers)
•Door-to-door campaign to promote audits and retrofits. (Received after the session)
•Tenant energy use monitoring
Utility bill disclosure (electricity, heating oil, natural gas) program at point of sale/rent
Fuel oil to natural gas (or GSHP?) conversion
Energy Alignment Clause (Green lease)
Increase demand for residential development that meets NGBS or LEED standards through marketing/education programs directed at realtors.
Retrofit county/municipal owned street lights, parking lot and pedestrian lighting for more efficient energy usage.
Promote EE improvements across LI school buildings through cost effective, shared services for audits and retrofits.
Promote EE improvements in municipal facilities
Green fleet strategies
Promote increase in LI RPS or update RPS terms to promote investments in renewables best suited to LI.
<p><b>Energy Efficiency in Existing Residential Bldgs.</b></p> <ul style="list-style-type: none"> <li>•Create and implement educational programs for all grade levels that will outline causes, as well as practical, personal and community solutions</li> <li>•Extend Long Island Green Home Program</li> <li>•Weatherization property tax assistance</li> <li>•Energy performance certification program</li> <li>•Energy Conservation Ordinance</li> <li>•Door-to-door campaign to promote audits and retrofits. (Received after the session)</li> </ul> <p><b>Energy Efficiency in Existing Commercial Bldgs.</b></p> <ul style="list-style-type: none"> <li>•Comprehensive education &amp; behavior programs</li> <li>•Building owner/manager/agent education programs</li> <li>•Green building database</li> <li>•Energy Benchmarking</li> <li>•Energy Audits &amp; Retro-commissioning</li> <li>•Energy Dashboards, Power Management Programs</li> <li>•Tenant energy use monitoring</li> <li>•Southampton Hospital as green tech showcase</li> <li>•Standards for IT infrastructure (data centers)</li> </ul> <p><b>New Construction Standards</b></p> <ul style="list-style-type: none"> <li>•Increase training for design professional</li> <li>•Increase training for tradespersons</li> </ul>

- Increase performance through codes and standards
- Increase adoption of renewable energy through codes and standards
- Increase market for sustainable development through education program
- Promote passive design

## **Energy Systems**

- Incentivize geothermal
- Expand Solar Feed-In Tariff
- Support smart grid pilot projects
- Incentivize cogeneration
- Incentivize energy improvements via tax assessment relief
- Create a semi-annual conference re generate 100% renewable electricity for Long Island by 2030.

*•Mechanism to account for externalities when evaluating power generation, to encourage utility-scale wind (and other renewable) generation. (Received after the session)*

*•Encourage microgrids across Long Island where renewable energy is created. (Received after the session).*

*•As energy storage technology progresses , evaluate energy storage opportunities across Long Island to mitigate summer demand peaks. (Received after the session)*

## **Vehicle Efficiency and Alternative Fuels**

- Develop fueling/charging infrastructure available to the public.
- Incentives/rebates for private charging stations
- Incentives for vehicles (sales tax, fee reductions, parking preference)
- Preferential electric rate for electric vehicles

## **Adaptation**

- Severe storm preparation (harden infrastructure)

## **DRAFT List of Potential Waste Strategies (provided by Waste Working Group)**

### **Sustainable Waste Management for Organics**

- Establish a renewable natural gas plant to accept organic waste
- In other words, implement anaerobic digestion to accept source-separated organics (e.g, food and yard wastes) to provide a bio-gas which can be converted to compressed natural gas (CNG) for transportation fuel (for use in waste fleet vehicles).
- Create a regional composting facility for organic waste
- Increase participation in composting through marketing and incentive-based programming for institutions, schools and commercial entities

### **Sustainable Waste Management for Other Wastes (e.g., hazardous, plastics, e-waste, and medical waste)**

- Regional Recycling Facility to recycle 3-7
- Recycling and Product Stewardship Laws
- Feasibility Study for Regional Waste to Energy Plan
- Evaluate smaller scale waste to energy, emphasizing a localized approach to waste management that uses novel proven technologies from the EU and Japan. Localized small scale WtE systems haul waste shorter distances (reducing GHGs), accept less amounts of waste (<100, 000 tons/year) and have potential to be more selective concerning their feedstock.
- Evaluate microscale and modular on-site systems <3 tons/day (e..g, Brookhaven pilot program, Southampton hospital, StoneyBrook, Nassau Prison).
- Evaluate public-private partnership, particularly Stony Brook University, as universities receive quite a bit of state funding.

### **Waste Transport**

- Natural Gas Vehicles and Facility
- Rail and Marine Transfer Stations
- Encourage the adoption of natural gas and electric vehicles

## DRAFT List of Potential Water Strategies (provided by Water Working Group)

- **Aquifers**
  - Sufficient capacity for drinking water
    - What capacity do aquifers have?
    - What is the sustainable yield?
  - Protecting sole source aquifers
  - Preventing toxic plumes
  - Relating to surface water impairment
    - Education on what goes down the drain
  - Salt water intrusion – contaminants and remediation
  - Integrity and monitoring of aquifer
- **Sewer and septic system infrastructure upgrades**
  - Glen Cove – supply, maintenance and expansion
  - East end – septic system leakage, leads to brown and red tides
  - Sewer filter replacement and maintenance
    - Changing infrastructure of storm drains to pull out contaminants gives inflated carbon footprint
    - Maintenance costs are financial burden on smaller communities
- **Energy usage for wastewater treatment**
- **Water quality**
  - Water quality and protection plan should be made for all of Long Island
- **Reuse of water**
  - Grey water systems/reuse of sewage effluent
  - Recharge water, rather than discharge
  - Potable water is wasted through uses where it is not needed
  - Water usage education
    - Irrigation use in summer

### Policy and Best Practices

- Septic inspection program (based on MA Title 5)
- Incentives for pervious surfaces
- Separation of grey water and black water
- Maintaining existing and designating new recharge basins
- Green methodology for storm water guide

## **DRAFT List of Potential Land Use & Livable Communities and Transportation Strategies (provided by Land Use & Livable Communities and Transportation Working Group)**

### **Walkability**

Increase funding for complete streets  
Increasing handicap accessibility with more drop down curbs  
Incentive zoning – developers given FAR, or density bonus for walkability improvements or public facilities  
Require utilities to put in sidewalks when the put in underground infrastructure  
Pocket parks – rest spots  
Traffic signal timing for pedestrians  
Study where people are moving to and from so we can prioritize what areas need walkability improvements first  
Create walkable routes to parks  
Develop and implement Complete Streets plan/policy in places that haven't already  
Increase number of "Safe Routes to School" and "Safe Routes to Transit"

### **Congestion relief – alternative transportation**

Create more protected bike lanes

- Right on red concern for bike lanes

Overall bike strategy

- Sharrows

Lanes  
Rental/share  
Increase transportation options at preserves, passive parks

- Bike lanes

Small electric car lanes  
Bike lockers (or other facilities, racks, etc) at more train stations  
Reduce LIRR restrictions on bikes – more bike on train options for commuting  
Increase number of buses that accommodate bikes  
Encourage more flex time – staggered business hours- reduced peak travel  
Town incentives for preferential parking for carpools  
Work with employers and landlords to increase bike facilities showers at workplaces  
Develop multi use corridors along train right of way  
Conversion of HOV lanes on LIE to HOT (toll)  
Implement bike rental models for shared transportation  
Increase the use of vehicle sharing systems  
Increase the use of linked/coordinated signal systems to increase traffic flow and reduce congestion and pollution

### **Transit**

Increase north-south transit  
Improve East End transit via "Scoot" train service or other  
Improve service on West Hempstead line  
Create funding mechanisms, value capture at state level  
Make any BRT investments "rail ready"  
Build third track  
Coordinate transit and land use  
Begin Sunday bus service in Suffolk – expanded hours  
Enhance bus service – "BRT light" dedicated bus lanes, prepaid fares  
More coordinated planning between railroad and bus transit

Open Republic station at 110 connect with north south transit along 110

## **Freight**

Increase freight rail

Create more, smaller train to truck facilities instead of one large facility

## **Alternative Fuels**

Increase number of alternative fuel buses/school buses

Increase number of electric/CNG fuel stations - I-95 to 495 alternative fuel corridor as model? multiple alt fuel station?

Study battery technology here. Tech incubator. NY BEST (Battery Electric Storage Technology)

## **TODs/Redevelopment**

Develop transit village program similar to New Jersey

Increase location efficient development

Develop business tech incubator sites proximate to housing

Develop parking management strategies

- Develop/ use local demand numbers for parking instead of national to determine parking needs

Use design standards based on local historical precedents to allow acceptance of higher density development

17 TDR programs on Long Island –need to develop a regional approach

Use TDRs and flexible zoning

Increasing transit service to TODs.

Track affordable housing needs

Local labor requirements (Economic development)

Green building standards.

Streamline SEQRA process

Develop clearinghouse of tools/best practices

## **Open Space and parks**

Increase open space and parks

Develop funding strategies – bonds, set-asides, etc.

Utilize cluster zoning

Develop good mix of active use parks, passive parks and preserves.

Open space acquisition for climate adaptation – low lying areas.

Create designated smoking areas in parks.

Reevaluate existing opens space and parks, find out why they are underutilized.

## **Other ideas**

Climate adaptation, repurpose coastal areas, roadways, infrastructure

Community engagement to forward these ideas

Reduce rubbernecking via public awareness/education

# Cleaner Greener Public Participation Vision LI

The public process began with the formation of the CGC to provide direction, review, and approval at each phase of work. A Steering Committee comprised of the lead municipality, local non-governmental organizations, and the planning and technical consultants served as the guiding body for the larger planning partners.

Vision Long Island in consultation with Sustainability Institute at Molloy drafted a public engagement strategy for the project that was reviewed and supported by the Steering committee. The Planning Team, representing the municipalities in the CGC, reviewed all project deliverables.

## 1) Working Group Process

The eight-month process began in July 2012 with a CGC planning meeting to clarify project goals, timeline, overview responsibilities and expectations, and initiate formation of the Working Groups. The Working Groups, comprised of local stakeholders and technical experts, were engaged throughout the process to support the development of each of the following subject areas as the focus for the plan: energy, land use and livable communities, transportation, waste management, water management, economic development and housing. In addition recommendations were developed in the areas of governance and climate change resulting from working group and public outreach.

Two organizations led the charge in the outreach effort, the LI Smart Growth Working Group which is a consortium of over 300 government, community, chamber of commerce and environmental leaders and the LI Clean Energy Leadership Task Force which is focused largely on over 400 green businesses, municipalities and environmental leaders. For this part of the process outreach was to over 800 LI leaders with more than 300 different community, business and local government leaders engaging directly as part of the Working Group process. The summary of these three meetings are as follows:

### September 28<sup>th</sup> Working Group Meeting

The working groups consist of local municipalities, community, environmental and business organizations. The first meeting of this group kicked off with remarks from Jon Kaiman, the Supervisor of the Town of North Hempstead-the lead agency for this study and Lindsay Robbins, a representative of NYSERDA, who gave an explanation of NYSERDA, RGGI funding and the Cleaner Greener Communities program. After the introductory statements, the group split into the separate subject areas of Water, Waste, Energy, Land Use & Transportation, and Housing & Economic Development. The break out sessions were held in two consecutive time slots so that those who were interested in multiple subject areas could attend more than one session and arranged so that topics that may be interesting to the same groups of people were not held simultaneously.

During the break out sessions, the groups were asked to focus on developing a list of indicators that could be used to measure progress in the subject area. Several of the groups came up with dozens of different indicators.

The first working group topic was Transportation, Land Use and Livable Communities. The group discussed the required and suggested indicators from the document from NYSEERDA and developed many additional indicators that can be considered for the plan. Land use indicators covered a range of issues from location of development (ie. Number and location of brownfields, percentage of sewerd downtowns), to open space indicators (percent of tree canopy, percent living within a half mile of parks), to livability/equity indicators (percent living below median income and percent within one mile of grocery stores).

There were also many transportation indicators discussed, from bicycle/pedestrian indicators (Miles of sidewalks and bike lanes and number of bike/ped accidents at intersections), to transit indicators (connectivity between bus and train schedules to density of residences and jobs within a half mile of transit). Transportation indicators also looked at alternative fuels and fuel efficiency indicators (number of clean vehicle passes issued to number of alternative fueling stations). The group also discussed parking, freight, air travel and traffic indicators that could potentially be used in this study.

The second working group discussed water management issues for Long Island. Issues relating to our aquifers such as its capacity and how much can sustainably be drawn from it as well as its protection were discussed. The group also focused on surface water impairment and salt water intrusion into the aquifers. Water infrastructure issues such as the expansion of existing sewer systems, sewerding of areas without infrastructure and brown and red tides due to faulty septic systems were looked at. The group developed a list of best practices including: Septic inspection programs, incentives for pervious surfaces, separation of grey water and black water, maintaining existing and designating new recharge basins, and green methodology for storm water management.

Based on the issues discussed in this group, indicators such as percentage of municipalities requiring “green” or “light impact” stormwater treatment and percentage of paved land vs. pervious surfaces could be used as potential indicators for this subject area.

The third working group focused on waste management, both in how waste is either disposed of or recycled and also how efficient these methods are. They reviewed the various programs for waste collection and recycling throughout the island and discussed best practices. The potential for energy generation, both from methane and solar, at landfills was another topic of discussion. Some of the suggested indicators for waste included: percentage of total municipal solid waste generated that is landfilled, combusted, or exported; annual energy use of waste collection per fleet vehicle – by

fuel type; and the amount of public participation in waste management plans and actions

The fourth working group dealt with economic development and housing issues on Long Island. Issues regarding employment, cost of living, and economic activity. Some of the indicators that were suggested or otherwise developed out of the discussion included: number and wages of jobs created, percentage of unemployment broken down by age group, ratio of basic vs. non-basic industries, number of workforce training programs and number of tourists/visitors coming to Long Island. Other items that were discussed included agriculture and its relationship to jobs and the local economy, tax policies and their effect and the economic value of open space.

The final working group focused on energy both efficiency and production. A preliminary list of all of the energy efficiency and renewable energy programs around the island was reviewed and additions such as the “under-development” unified code for small wind turbines for agricultural and residential properties, and the first ever compressed natural gas ambulance at North Shore LIJ hospital. There was also discussion regarding whether certain programs should be phased out when their incentive is no longer necessary. One example is the HOV “Clean Pass” for hybrid vehicles to encourage their use when they are already in such high demand that there is a waiting list.

Energy efficiency with regards to building and vehicles was discussed in depth. Some of the many suggestions for building energy use indicators included the number of registered green buildings (currently about 4300), number of smart meters installed, percentage of homes with available natural gas in the street, and the percentage of building stock that has had an energy audit. Vehicle efficiency indicators included: average vehicle fleet fuel consumption, and the number of private and public vehicle charging stations.

Renewable energy indicators were also part of the discussion and indicators such as the percentage of energy generated from renewable sources, and the number of permits issues for residential and commercial solar PV panels installed were possible suggestions. Education with regards to sustainability and clean energy were also possible indicator topics. Number of students enrolled in sustainability programs, number of professionals certified and practicing in sustainable practices were other potential indicators.

Finally there were a number of food related indicators that came up in many of the working groups through they were harder to determine which working group they belonged in. The number of and accessibility of farmers markets as well as meat consumption per capita were issues that relate to overall greenhouse gas production and sustainability, but couldn't clearly be categorized into one working group.

### **January 18th Working Group Meeting**

The second working group meeting focused on the development of strategies that could be implemented to help make improvements to the status of the indicators selected at the first meeting. Prior to the meeting, the groups were asked to submit strategy ideas that were used to get the conversation started. After the meeting, emails were distributed to the group for further follow up regarding evaluation of the strategies, whether they should be mandatory, voluntary or incentives, ideas for implementation and potential obstacles.

Many strategies were developed during the break out groups. Some of the strategies proposed were essentially a sub-strategy of a broader strategy, such as “create walkable routes to parks” as a sub strategy to “Implement Complete Streets Policies.” Some of the strategies were a bit controversial to other members of the group or were unfeasible due to numerous obstacles and were eliminated from the list.

### **March 1<sup>st</sup> Working Group Meeting**

The third and final working group meeting focused primarily on developing targets for each of the strategies that were ultimately selected. For this meeting, all of the subject areas were reviewed by the entire group, rather than break-out sessions, so that everyone could see the overall plan and comment on it. Subject area captains, along with the technical leads, developed preliminary targets to begin the discussion. Most of these suggestions were seen as appropriate by the group and only a few were modified.

At this meeting climate change adaptation was also discussed. Strategies from each of the subject areas were highlighted as also having adaptation benefits. In addition, a few other strategies were added for this category that had not been chosen for the other subject areas.

## **2) Municipal Outreach**

The outreach continued as meetings were held with Town Supervisors in N. Hempstead, Babylon, Islip, Huntington, Riverhead, Southampton, East Hampton, Southold and Councilperson’s in Brookhaven. Meetings were held with six Villages as well as municipal staff from each of the Towns participating in the plan. Two presentations were made to the Suffolk Supervisor’s Association. At these meetings Supervisor’s and Mayor’s outlined many of the projects that their municipality is already engaged in that are in the issue areas of the study. In addition project and policy ideas were discussed that could result in new initiatives.

Based on these meetings and the direct representation of the staff in the process we see municipal support for the majority of items outlined in the plan. There may, however, be individual recommendations that are not supported within the boundaries of their municipality.

### **3) Public Meetings - March 2013 Public Workshops**

#### **Background:**

Members of the Steering Committee collaborated with Working Groups to develop indicators, goals, implementation strategies, and targets for performance. This work was incorporated in the draft CGLI Plan and presented in public engagement meetings March 4-11, 2013, to provide further review and comment and to ensure the plan represents the goals of Long Island communities.

#### **Outreach Mechanisms:**

Members of the consultant team provided input regarding the types of organizations that should be contacted for participation. Vision Long Island reached out to a comprehensive list of community groups, elected officials, and businesses to receive invitations to participate in public workshops.

The list was generated with a desire to ensure representation of all communities for each focus area. Criteria for consideration was compiled from local and regional stakeholders, lead organizations working with communities, and community leaders in each specific focus areas. While some organizations may have qualified for more than one focus area or community, these organizations were not listed in a form of crosscutting to safeguard the diversity of input. Vision Long Island also took note to the need of experts in the focus areas and the general public. Although the general public may not be able to provide the technical strategy or indicator, they would be able to provide suggested goals to the group in which the group would develop the additional components.

Outreach to these groups included mass emails, phone calls, Facebook notifications, text messages, personal invitations, and invitations presented to groups at their local meetings. Invitation recipients were also encouraged to invite others they felt may be interested in participating.

#### **Public Workshop Locations and Dates:**

Workshops were conducted in 3 locations throughout Long Island: Nassau County, Western Suffolk County, and Eastern Suffolk County. Nassau County represents the most densely populated area of Long Island. Eastern Suffolk County is largely a suburban area. Western Suffolk County is a mix of both Nassau and Eastern Suffolk County. Although it contains suburban areas, many of Suffolk County's downtowns are located in Western Suffolk. Conducting the public workshops in these three central locations would allow for maximum turnout with minimal travel for participants in facilities there are familiar with.

Dates were chosen so that the workshops could be held in a condensed timeframe allowing participants to attend multiple meetings and to pose the least possible conflict with existing community and municipal meetings.

### **Public Participation Process:**

Each night, participants were given materials about the program and a comment form to be completed at the meeting or at a later date. All meetings were opened with a short introduction of the consultant team, recognition of elected officials present and an overview of the program. Immediately following, the consultant team presented the strategies, goals, and indicators to the participants then opened the meeting to public comments. Comments were collected in their own word, compiled and prioritized (see below). After the meeting, completed comment forms were collected (see below). Additional comments were encouraged to be submitted via the suggested website (see below).

### **March 4<sup>th</sup> Public Meeting - Nassau County (North Hempstead)**

The meeting open to the general public was held at the “Yes We Can” Community Center in New Cassel. Over 60 people attended the event. Prior to the presentation, the consultant group provided a general introduction led by Town of North Hempstead Councilwoman Viviana Russell, immediately followed by words from other local elected officials. The consultant team then presented the strategies, goals, and indicators to the participants then opened the meeting to public comments. Comments were collected in their own word, compiled and prioritized. Additional comments were encouraged to be submitted via the suggested website.

Many comments were clear to only focus on one area. Participants suggested economic development included jobs for veterans and those with special needs. Other ideas recommended taking into account existing building inventory for conversion to agricultural that provides for the needs of Long Islanders. Energy recommendations included an investment in a green disaster recovery plan for our local utilities, bio-diesel fuel, and additional charging stations. Recommendations which apply to two or more focus areas such as investment in entrepreneurship for green businesses were categorized separately. Comments outside of the boundaries of this plan were logged in addition to concerns on the next phase of funding.

### **March 5<sup>th</sup> Public Meeting – Western Suffolk County (Islip)**

The second public meeting was held at Islip Town Hall West. Approximately 70 people turned out for the presentation. In this session, because of the size of the turn out and the facility, after the general presentation, the participations were broken up into groups by focus area. Participants were able to hear in depth presentations by each focus area regarding strategies, goals, and indicators. Members of the consultant team in each focus area allowed for questions and answers throughout the individual presentations. Comments were captured in each individual focus areas and reported back to the group. After the allotted time, participants were encouraged to participate in other focus areas while the consultant group presented a second time.

Comments were mainly geared towards individual focus areas with minimal crosscutting. There were concerns of eminent domain, multifamily housing and job loss due to the transition from trucking to freight delivery. Participants suggested taking a look into existing housing stock before new development and fix it first on infrastructure. Creation of more green jobs and connections interstate connectivity were also recommended. Concerns were raised about the role and effectiveness of transfer of development rights programs. Emergency preparedness was also recommended for inclusion similar to preparation and recovery plans of areas like New Orleans. Suggestions also included education on septic system retrofits and legislation restricting plastics. Adequate water testing and treatment was also suggested as well as lawn watering restrictions (odd/even days). Waste management recommendations encompassed upgrades to existing treatment plants at a level of storm resiliency, incinerator ash containment, and proper chemical disposal for car washes, pharmaceuticals, and cleaning products. Pedestrian safety was also of concern.

#### **March 11<sup>th</sup> Public Meeting – Eastern Suffolk County (Southampton)**

The meeting open to the general public was held at the Southampton Town Hall with over 60 people in attendance. The meeting began with introductions by the consultant group with an introduction by Southampton Supervisor Anna Throne Holst. After a brief overview, the consultant group presented the participants with an overview of the strategies, goals, and indicators. After the presentation, the meeting was open to questions and comments. All comments were documented, compiled, and categorized. Additional recommendations supplied via the suggested website were encouraged.

Because this is a more suburban/rural area, many of the concerns were regarding how to minimize development in these communities and pesticides. While some of the comments did not pertain to the scope of the process, concerns were noted and categorized. Many residents expressed their content for the area to remain as it is currently to secure their quality of life. However, some recommendations included using brownfield sites for compost sites. In regards to Hurricane Sandy, participants would like to see bank grants instead of loans. In the area of economic development, tax incentives be provided businesses that allow telecommuting. Transportation recommendations included investment in a monorail instead of the HOV lane on the LIE.

At the end of each public meeting Vision asked if there were any other final questions or concerns – being there were none other than the comments mentioned it was outlined that the plan after input from the session will be presented to NYSERDA for approval in the coming weeks.

#### **4) Additional Outreach**

In addition business, community and environmental leaders representing areas across Long Island participated in the process. Outreach for this project reached over a dozen business organizations as well twenty civic associations and roughly ten environmental

groups. Feedback and priorities from these organizations has been incorporated into the strategy development.

E-mail invitations were distributed to over 30,000 Long Islanders through direct solicitation. Electronic and social media efforts involved the Vision Long Island website, updates on Facebook pages, Twitter and I-phone app's. A website with the Cleaner Greener draft Executive Summary and plan outline was made available to disseminate information about the plan and the process.

Press coverage for this process included articles in Newsday, the Patch, LI Business News, the Corridor and an Editorial in Newsday.

Outreach through the LI Green Homes Consortium was ongoing though out the process. Additional outreach from a panel at the LI 2012 Smart Growth Summit which had over 1,000 attendees and a panel at the Advanced Energy Center at Stony Brook was held. Outreach presentations were also made at the Hofstra Suburban Development Conference and the LI Commercial Real Estate Expo. There was also assistance in the outreach from AARP, business groups and environmental organizations.

Outreach included presentations to all of the working groups of the LI Regional Economic Development Council as well as the Council itself. Comments were collected at the meetings and afterward for consideration and inclusion into the plan.

During the course of this grant to provide input into the plan Vision Long Island has heard sustainability ideas from the following with business, community and government leaders in the following 49 incorporated and unincorporated communities in Nassau:

Albertson, Baldwin, Bayville, Bellmore, Bethpage, Carle Place, Cedarhurst, East Meadow, East Norwich, East Rockaway, Elmont, Farmingdale, Floral Park, Franklin Square, Freeport, Garden City, Glen Cove, Great Neck, Hempstead, Hewlett, Inwood, Island Park, Levittown, Locust Valley, Long Beach, Lynbrook, Malverne, Manhasset, Massapequa, Merrick, Mineola, New Hyde Park, Oceanside, Hempstead, Oyster Bay, Plainview, Port Washington, Rockville Centre, Roosevelt, Roslyn, Sea Cliff, Seaford, Syosset, Uniondale, Valley Stream, Wantagh, West Hempstead, Westbury and Williston Park.

And the following 69 communities in Suffolk:

Amityville, Babylon, North Babylon, West Babylon, Bayshore, Bellport, Brentwood, Brookhaven, Centerport, Central Islip, Cold Spring Harbor, Commack, Copiague, Coram, Deer Park, East Islip, East Northport, Farmingville, Gordon Heights, Greenlawn, Holbrook, Huntington, Huntington Station, Melville, Islandia, Islip, Kings Park, Lindenhurst , Medford, Miller Place, Mount Sinai, Nesconset, Northport, Oakdale, Patchogue, Port Jefferson Station, Port Jefferson, Rocky Point, Ronkonkoma, Saint James, Sayville, Selden, Shoreham, Smithtown, Stony Brook, West Islip, West Sayville, Wyandanch, Middle Island, Riverhead, Aquebogue, Bridgehampton, East Hampton, East Moriches, Eastport, Greenport, Jamesport, Mastic, Mastic Beach, Mattituck,

Quogue, Sag Harbor, Shelter Island, Shirley, Southampton, South Jamesport, Southold, Water Mill, Westhampton and Yaphank

Based on all of the individual and collective input we have received from the general outreach there is support for the majority of elements contained in the plan. The only caveat is in the area of land use where the public, small businesses and local government seek to remain the drivers of implementing these and other policies. It is our understanding that these interests would want to have a stronger control over other elements of the plan as well.

**Collected Comments:**

Below is a summary of provided comments via public workshops, comment forms, website submittal, and conversations pertaining to the focus areas. Bulleted comments are from actual participants who identified specific strategies, goals, indicators, concerns, or comments to be submitted with the report.

Economic Development- Comments that have come forward include the production of green jobs and increased investment in housing opportunities.

Concern about very low income or Section 8, federally subsidized housing was expressed through the process.

Concern that Long Islanders are not getting their fair share of economic development funding.

Strong support was heard for initiatives to provide local jobs with robust input from the labor community.

- Increase training incentive focus for people who are in failing industries to enter into green jobs
- Grants in place of loans for small businesses in the green industry
- Tax incentives for telecommuting, etc.
- Dedication for energy job training and hiring for veterans, disabled, underserved communities, ex-offenders, underemployed, recent college graduates, and women on a community level awareness to increase participation
- Focus on the agricultural industry to provide local produce by utilizing existing blighted or vacant structures (ex. Utilizing the Pilgrim Estate property for year-round organic farms and greenhouses to grow food for LI)
- Create more Green jobs on Long Island
- Investment for entrepreneurs to develop green products (ex. Solar BBQ)
- Small farm initiatives that have programs and assistance with land purchases to encourage agricultural and aqua pod businesses
- Educate and incentivize business to operate a more energy efficient facility

Energy- Comments support existing energy efficiency alternatives with potential growth in residential and commercial program areas. Support remained strong in the differing options for renewable energy expansion as well.

- Adding more energy awareness to school projects like solar and wind
- Focus on new fuel sources

#### Housing-

- Investment in existing housing stock before new development
- Concern on housing density and multi-family housing (concern mainly of overpopulation and unoccupied housing stock resulting in an increase of section 8 housing or vacant properties)

#### Land Use-

- Land use is a local function and most of the people engaged spoke in strong support of the continuation of home rule.
- Support for transit oriented development exists from community and business leaders in the downtowns that are seeking these improvements. Skepticism and concern exists for this strategy outside of many downtown areas due to concerns about density, overcrowding and a larger real or perceived shift in existing suburban quality of life.
- Concerns over eminent domain
- Investment in infrastructure
- More of a focus on agriculture
- Save more open space
- Concerns about transfer of development rights programs. Primary caution is from a private property rights perspective along with a fear of overdensifying certain communities.

Transportation- Support for alternatives to the automobile exists but with a broad skepticism that the mass transit system will get better. Some businesses are still enraged by the MTA due to real or perceived waste and inefficiencies as well as the payroll tax.

Support for expansion of the Nassau and Suffolk bus systems remains in place. Support for increasing the safety of LI's roadways for pedestrians and bicyclists is seen as a priority in this category. Support for increased use of alternative fuel vehicles exists as well.

- Concern over congestion
- Train crossings--increased idling and GHG
- Use Babylon/Montauk Branch for Freight to bypass main line.
- Pedestrian - site plan review, walking paths
- Freight tunnel
- Connections to Connecticut
- Restrictions on idling
- Reducing VMT

- Increase in buses

Water- Long Islanders continue to express strong support for clean safe drinking water and are concerned about any potential threat to this resource. Concerns about pesticide use and potential contamination were raised through the public process.

Expansion of existing wastewater treatment facilities was a concern to support economic growth and protect water quality.

Concern exists that Long Island is not receiving its fair share of funding in the area of wastewater treatment.

- 4th grade science test may interfere with water curriculum. Maybe 3rd grade.
- Bill and Melinda gates foundation--eco-friendly toilet-->Suffolk County exploring.
- Water restrictions on landscape water use in Suffolk (mid-day restrictions and odd/even days)
- More support for aquifers

Waste-

- Legislating against plastics
- Information on septic system retrofits
- Tertiary treatment
- Mandatory marking of plastic #
- Peconic Institute composting program w/East Hampton being an example for other areas
- Focus to incorporate Town of Brookhaven transfer station and address
- Hazardous waste designation
- Particulate matter in rain near incinerators needs to be addressed
- Management of existing ash fills and fly ash blowing around community
- Utilizing ash for construction
- Island park sewage treatment plant repairs and others need to be fixed first
- Investment in plants that are model plants in other areas
- Cedar creek sewage treatment plant experiment w/tertiary treatment and recharge.
- Incentives for natural cleaning products and disguard of car wash gray-water and pharmaceuticals in water
- Brownfield sites used for composting
- Community reimbursement program (ex. Clean up for Rockaways sewage that was carried by the current to others areas should not the fiscal responsibility of the affected area)

Climate Change- In the wake of super storm Sandy Long Islanders express concern for Climate Change but often lack clarity as to how individual initiatives can make a change.

The post-Sandy process of hardening infrastructure, buffers, raising houses, wastewater treatment and transportation upgrades have all emerged as issues that

have deep support. The larger strategies of reduction of greenhouse gas emissions could be made clearer to the broader public moving forward with a focus on communicating the value of policy actions that will make meaningful improvements in the reduction.

- Emergency Preparedness Plan similar to processes of 9th Ward New Orleans
- Creating a green disaster recovery plan (ex. Developing technology such as solar chargers to charge electric cars when power is out)
- Solar battery back ups

### Governance

Some citizens chose to support their local municipalities through this process. Villages fared better in the feedback with some concerns about how unincorporated communities in very large townships are handled with a lack of focus and implementation on revitalization projects.

- Energy efficient facilities like the “Yes We Can” center are being built in some communities but not others.
- Concern that municipalities who are understaffed or not interested in plugging into the next steps will cause a loss of potential dollars for represented communities
- Municipalities prioritize working with communities that want to take green initiatives

General Concerns not applicable to focus areas and/or supported by the participants as a whole:

- Creating a brand for Long Island
- Concern about pesticides and other pollutants? (Large companies polluting for years, 60 chemicals found and medications, manure, etc.)
- Development should come from people and private sector not government.
- Government is geoengineering our environment
- Too much government, too much time computing
- East End likes driving, should be able to choose.
- Smart meters toxic - 2 Miles
- Monorail instead of HOV
- Local tax on chemicals
- DEC Public hearing - demand they reduce pesticides. April 3 - SCCC
- Can local municipalities ban pesticides? Preempted by state law
- Reduce Green House gases
- Utilize veterans for Sandy rebuilding

Comments and/or concerns related to Project:

- Next steps continue to remain open to community groups and not just municipalities particularly in the area of funding for projects.
- Level of detail and specificity in the report
- Types of projects that would be funded/funding methods for implementation
- Clarifying quantifications and targets
- Does this plan coincide with LI 2035 and existing revitalization efforts

### **Conclusion**

To close there is broad support for many of the strategies and programmatic, policy and project initiatives that came out of the planning process. The feedback from the public process is consistent with the many years of community interaction that has taken place shaping the bulk of the numerous public plans on Long Island.

Given that public and stakeholder input throughout the process has shaped the goals, targets and resulting strategies there is not any feedback to date that warrants any changes in the draft plan.

Long running economic stagnation, post-Sandy recovery and numerous regional planning efforts already underway have directed a great deal of this process towards a very pragmatic, achievable set of recommendations. Most folks want to see continued tangible progress in many of the areas of the plan and are already engaged in efforts to move sustainable strategies forward in their community.

## **Cleaner Greener Communities: March 4, 2013 New Cassel Public Meeting**

### **Introductions-**

**Fran Reid** –We are now into the public input stage of the Cleaner Greener Communities study in this wonderful building the Yes We Can Community Center which is a LEED Platinum building- will have a tour after the program. Introduces North Hempstead Councilwoman Viviana Russel.

**Councilwoman Russel**-Welcome to New Cassel, 10 years ago we had a visioning and brought the community together with businesses etc. developed into new buildings on Prospect and this new community center- Welcome you all and thank you to our partners.

**Eric Alexander**-Phase 2 of this process will involve three rounds of \$30 million of funding, Long Island may do well or not depending on how good our plan is and the types of projects that come out of it.

NYSERDA criteria- they are going to be rigorous in evaluating projects for funding.

We expected the GHG inventory and analysis to help us prioritize strategies at this point, but it will be coming soon.

**Neal Lewis**- funding comes from RGGI the Regional Greenhouse Gas Initiative- so the focus is primarily on GHG reductions

### **Presentation of Goals and Strategies-**

**Neal**- Energy indicators- LIPA spends 5% on renewable programs to help with solar panels etc.

Energy Goals-more existing buildings than new construction-can have more impact. 1<sup>st</sup> strategy, energy performance certificate for homes at point of sale- can get info for cars or air conditioners. Education about available incentives. Benchmarking-yearly rating for energy use-currently no mechanism to compare one building to another. Energy audit requirements tougher legally to implement. Energy alignment cause-landlord and tenant share benefits of improvements. Renewable energy –solar ready code-have 6000 would like 60000. When doing construction build so that panels can be put on later. Require solar on new commercial buildings over a certain size-to generate a certain percentage -unified solar code across the island. Alternative fuel is a chicken and egg situation- which comes first, the stations or the drivers?

**Fran**- Waste management- Goals... town has composting program with schools, pay as you throw. Non organics, only recycle 1 & 2 how can we recycle other #s- efficient fleets

Water management- regional entity to manage, fund USGS monitoring, reduce sprinklering.

**Rosemary**- Econ Dev & Housing-H&TA index LI unaffordable- Green business cluster-business/industrial sector- new technology from labs-develop here. Green construction jobs, agriculture and aquaculture. Helping businesses green their business, create local LI branding. Job training, sandy rebuilding etc.

**Eric-** LU&T-Expand transit-east side access will allow more transit. LI historically developed around train stations, street grids, walkable streets. Half of local plans across the island say revitalize and develop, half of plans say “stop growth and preserve what we have.” Patchogue park buffer protected development from storm surge.

**Elissa-** Climate change adaptation- many of the strategies in the previous sections also have climate change adaptation benefits. Multiple transportation modes or fuel types give options when one of them goes down in a storm. Reduced heat island effect-less peak energy usage in the summer.

## **Questions and Answers**

**Vita-** Veteran entrepreneur development partner with FSU-branding LI resources- reduce bi county territorial battle- Energy Jobs-have 180000 veterans-significant homeless 10000- highest unemployment rate in the country- most trained and disciplined. Make sure that veteran business- sole proprietor- job creation, provide opportunities. Incorporate workforce training.

**Sarah Hill-** Baldwin civic-national evaluation community learning centers- looking at good program practices-Skohegan ME- local agriculture rural area, ship crops away due to lack of mill, small company convert old jail to grist mill-local restaurants promote. How do we make a program that does this? Rosemary-test kitchen, cold storage for produce to market competitively -pre washed spinach etc.

How specific will this report be? What type of projects will get funded? Solar admin. wind on schools project? Don't know about phase 2 yet, should before April 25. --Start writing proposals now, it's going to happen fast.

You spoke about reducing VMTs and increasing buses. Nice thing about LI is less hustle and bustle-more buses can bring more undesirables. Some people want it, some don't. Increase where folks want it, not where they don't

Funding questions/methods

No quantifications? What are targets?

**Jeanette,** Elmont Civic- what is your green disaster recovery plan-LIPA example- how can I charge electric vehicle after storm? Solar power chargers. At least one solar company –battery backups when power is down. Most solar on homes goes down with grid, many people getting generators, gas or oil. Not one individual thing to keep people from losing power. How can generator use solar?-batteries

**Vita-** bio diesel-from Katrina reuse of cooking oils- resources underway. We're in the Yes We Can community center- why can't Baldwin? After Sandy Baldwin got sewage from rockaways and boats from marina coming ashore/

**Sarah-** what do we do about equity of resources? Is the Town of Hempstead here? Equity in accessing funds? Regranting process works better than going through town of Hempstead. As a small civic, we

have no way to access intermediary for grants/REDC. Eric-13 of 15 projects that we supported through REDC, got funded. Partner with local community.

When you have unincorporated villages they tend to get neglected by the larger towns.

Idea for solar BBQ- anything to promote entrepreneurship at local level, inventors- is there a place to get funding?

Oyster Bay Main Street got grants because they already had a successful program- need to show ability

Finances-\$3mil per year- any notation of what may facilitate strategies- green bank- funds could increase because they come from RGGI- potential for more funds. Other funding streams available too

What is Vision LI?

Good job, looks like you did a lot of work.

Important to promote LI and brand that. We are a region but we compete by towns. Lose money to upstate. Foley nursing home could become PTSD center for veterans.

### **End of Presentation**

Vision asked if there were any other final questions or concerns – being there were none it was outlined that the plan after input from the session will be presented to NYSERDA for approval in the coming weeks.

Post presentation conversations brought up the topic of tree protection for open space but also in neighborhoods. North Hempstead has no tree ordinance, some people taking down all of their trees for fear they will fall on the house in a future storm.

## **Cleaner Greener Communities: March 5, 2013 Islip Town Hall Public Meeting**

### **Introductions:**

**Eric Alexander-** Welcomed everyone to the second Cleaner Greener Communities Plan and Grants Program sponsored by NYSERDA. He listed the different partners of NY Cleaner Greener Communities: Town of North Hempstead which is the lead along with 7 other towns across Long Island, Sustainability Institute of Molloy College being represented here by Neal Lewis, CDC of Long Island represented by Rosemary Olsen, and NYSERDA. Eric then gave an overview of the program for the evening noting that one of partners sponsored a meeting last night in the Town of North Hempstead at new community center in New Cassel and that we had really great feedback. However, because of the layout of the current room, unlike the room in New Cassel which was a little more conducive to a dialog and the originally planned Town board room, it would be better to go through the opening of the presentation then break up into groups to discuss the focus areas. He explained where each focus area would be located then lead everyone in the Pledge of Allegiance. Eric introduced Town of Islip Planning and Development Commissioner Dave Genaway and noted Islip councilman Steve Flotteron would be joining us shortly.

**Dave Genaway-** Welcomed everyone on behalf of the Supervisor and Town Council and gave a brief history of the location. Planning department is focused mainly on long range planning, demographics research, and zoning applications. In addition, involved in administrative processes. Land use plays a big role in how to make the communities better all the other areas are important as well. They have participated in the leadership workshop previously but are very interested in the public portion.

The Town of Islip has been involved in a few green initiatives but CGC program puts some formality to it. It aided in taking what has been done so far into a greater context. Grant funding for things like switching street lights which provided energy and cost savings. Other initiatives were converting their fleet vehicles to natural gas. As far as the planning department, revised code amendments such as a requirement for commercial building to obtain an energy rating better than what NYS requires. This can be obtained by doing things such as changing the windows. They have also started a program for homeowners to apply for a building permit to have wind energy turbines on their property. That is just a few examples and happy now to be a part of this process and hope the plan is adopted soon.

### **Program Overview Presentation:**

Eric Alexander- CGC program is a sustainability planning and funding program that partners with the Regional Economic Development Councils across the state and there are 10 regions of which LI is one. There are 2 Phases. We are currently finishing Phase 1 and will discuss the timeline shortly. Phase 2 will have a funding process that identifies a series of projects and policies that can be funded. 90 million thru 3 years in 10 regions. No clarity as to how the dollars will be distributed. Phase 1 delays due to Sandy. The Planning team then broke up into 5 areas.

NYSERDA- one issue related to strategy is the greenhouse gas inventory which should be completed shortly. This study will help create a methodology for us to look and weigh one strategy versus another. Additionally, this plan is focused on tying these Greenhouse Gas reduction strategies to jobs. We need a candid understanding of why some of these ideas haven't worked so far and if these ideas are justifies. This is why we have the towns in the preliminary planning as they possess on-the-ground understanding

of community and infrastructure needs. There are not a lot of resources for implementation in this plan to date so we will need to prioritize.

### **Break Out Groups:**

Each member of the consultant team presented the strategies, goals, and indicators to the participants then opened the group up to public comments.

### **Comments:**

#### Energy

The discussion among the people who participated in the review of the ideas (outlined on large poster boards) that were developed by the energy working group was engaged and positive.

As we reviewed the goals, the group agreed with beginning first with a focus on improving existing buildings (both residential and commercial) and then moving on to building codes and other ways to improve new construction. I got a lot of feedback and questions on the first two goals. People were very interested in efforts to improve the energy performance of existing buildings. There were two people in the group who had utilized the Long Island Green Homes program (funded by NYSERDA) to get home energy audits. Another homeowner had looked into it, but not yet scheduled the audit. The point was made that more homeowners should have the audits done, and those who had them completed assured the other members of the group that it was no big deal. People agreed that a Home Energy Performance Certificate was a reasonable proposal in light of the fact that when you buy a car, you get to review MPG ratings. Why not get similar information before buying a house?

There was agreement with goal #2 (improve efficiency of existing commercial buildings). A small business person explained that landlords don't care about energy bills, since they pass the bills on to the leaseholder. All members of the group liked the Energy Alignment Clause proposal as a way to address that problem, but they also felt that more aggressive efforts are warranted. The group believed that Benchmarking will help bring about market transformation, but it may take years. Consistent with the belief that more aggressive efforts would be appropriate, the group liked the requirement that large commercial buildings should be mandated to have energy audits once every five years. However, one person believed that such a requirement may go too far. The point that such audits can help businesses identify ways to save money by saving energy, and the fact that the requirement will only apply to very large buildings (25,000 sq. ft.), was seen by the majority of the group as reasonable.

The need to update codes to require new construction to meet higher energy efficiency standards was seen as a no-brainer. The requirement that new commercial construction should be mandated to generate a percentage of their estimated energy needs from renewable sources such as solar, was supported by all. Several people however, felt that 20% was too low a number, and that perhaps the requirement should be for 40%, 50% or 75%.

The group liked the effort to promote electric and plug-in electric hybrid vehicles, but most people were not aware that several manufacturers were bringing new versions of these cars onto the market. People were very interested to learn that it can be significantly cheaper to pay for charging a car with electricity than to pay for gasoline with its price approaching \$4 per gallon. They requested more information on the price comparison.

The goal to increase public awareness and education on these issues was seen as essential. Several people mentioned that they were disappointed with themselves that they were not more aware of what programs are available to help people implement energy efficiency improvements. The 2 homeowners who had home energy audits done at their homes indicated that they learned about the program from social networking including emails and facebook, and they suggested there should be more outreach of that type.

### Land Use/Transportation

Concerns over eminent domain.

Empty houses--why build new?

Lack of infrastructure

Already concern over congestion

More farms - jobs, greenhouses

Not able to agree on whether or not to have multi-family apartment buildings

Trucking industries jobs affected by rail. Retaining or refocus.

Use Babylon/Montauk Branch for Freight to bypass main line.

Train crossings--increased idling and GHG

DPW's won't want CNG vehicles for plows etc.--need new technology

TDR - No comprehensive plan

Alternatives

Pedestrian - site plan review, walking paths

Connections to Connecticut?

Freight tunnel

### Water

4th grade science test may interfere with water curriculum. Maybe 3rd grade.

Bill and Melinda Gates Foundation--eco-friendly toilet-->Suffolk County exploring.

Information on septic system retrofits

- tertiary treatment
- "The Living Machine"

Legislating against plastics

- Mandatory marking of plastic #
- Peconic Institute composting program w/East Hampton

### Waste

Town of Brookhaven transfer station

Fly ash blowing around community

- hazardous waste designation
- Particulate matter in rain near incinerators

Management of existing ashfills

Using ash for construction?

- Bottom ash vs. fly ash?

Island park sewage treatment plant!

- model plants?

Cedar creek sewage treatment plant experiment w/tertiary treatment and recharge.

Pharmaceuticals in water

Car wash graywater

Incentives for natural cleaning products

Water restrictions on landscape water use in Suffolk (mid-day restrictions and odd/even days).

### Housing

Rosemary Olsen gave a brief overview of housing. There were no questions other than clarity on some strategies. All comments were in line with those listed.

### **Closing-**

Eric Alexander provided input on the next steps. He also encouraged participants to provide us with any comments they have via the form or the website.

Vision asked if there were any other final questions or concerns – being there were none it was outlined that the plan after input from the session will be presented to NYSERDA for approval in the coming weeks.

## **March 11<sup>th</sup> Public Meeting – Eastern Suffolk County, Southampton**

**Introduction-** Welcome and general introduction of the team.

**Southampton Town Supervisor Anna Throne Holst-** Talked about the sustainability plan that the Town is preparing to adopt and support for a variety of energy related initiatives in Southampton.

Eric Alexander welcomed everyone to the third Cleaner Greener Communities Plan and Grants Program sponsored by NYSERDA. He listed the different partners of NY Cleaner Greener Communities: Town of North Hempstead which is the lead along with 7 other towns across Long Island, Sustainability Institute of Molloy College being represented here by Neal Lewis, CDC of Long Island and NYSERDA.

NYSERDA has Are there barriers to implementation? If it is such a good idea, why has it not happened yet? What existing conditions on Long Island justify these strategies? What reasons make the strategy worthy of consideration for limited grant funding?

90 million dollars state wide. Very competitive grant program. We must first create a plan and from there it will be determined where the money goes.

Working Group selected indicators. So groups may have started with a long list of indicators but NYSERDA wanted us to narrow them down and some did not have indicators. So the working worked on this and developed what is being presented. This came from review of over 250 plans on Long Island including regional, town-wide, and community plans. Some communities want to remain the same with minor improvements like streetscaping and beautification. Some communities want change including transportation, housing, and economic development. We are developing a balance and a clear message to bring back to NYS. This

Each member of the consultant team presented the strategies, goals, and indicators to the participants then opened the group up to public comments.

### **Energy-**

**Neal Lewis-** Acknowledged the Town of Southampton's support and partnership in the process. He mentioned some of the groups we have met with. Completing Phase 1 and Phase 2 will bring funding that anyone can apply for. This funding is 90 million over 3 years but the funding is competitive. Projects need to consider greenhouse gas reduction and how to create jobs. The specific criteria hasn't been determined but should fit the guidelines being presented today. There is current funding on Long Island for energy programs through LIPA and some NYSERDA programs. LIPA's Program is called Efficiency Long Island. \$120 million per year. 1st. Solar Pioneers which has been expanded to include solar leasing. 2nd. Feed in Tariff for larger projects. 1 approved for 50 megawatts. In the plan to continue this year. For building efficiency there are programs available. NYSERDA is to fund more creative innovative ideas that are not currently being funding.

The plan contains six broad categories of goals with three ranges: energy efficiency to renewables, residential to commercial, existing to new. He explained one energy efficiency alternative by having an energy performance certificate and the scoring process. Energy Audit requirements can also be used as a motivational tool and done on a 5 year basis. An Energy Alignment Clause is a creative idea to address issues in commercial where the landlord is not the one paying the utility bills. So a clause can be added into an existing lease where it can share the cost and benefits to retrofitting.

Many towns are taking a fresh look at their building codes and one idea is to ask them to look at some of the model codes in the International Green Code. The goal is to increase the incentives so that it encourages more to participate.

### **Waste-**

The goal is to reduce the base amount of garbage each person produces and increase recycling. There are no open landfills on Long Island so all waste must be transported off the island which is costly and not energy efficient. For waste that needs to be transported off of the island we need to find a way to transport it more efficiently.

Create incentive programs such as pay as you throw. Expand pilot programs for food waste. Increase recycle facilities so that they include the other plastics we currently do not cover. Expand waste yards to cover additional need.

### **Water-**

Long Island only has one source of water so we need to make sure we protect it. This included water conservation. 75% percent of Suffolk treat their waste water in septic systems so need to make sure they are maintained and decrease our need for septic tanks. Direct recharge water to our aquifers.

Aquifer management is managed diversely on Long Island so need one overseeing body to protect this resource and reinforce unified quality.

Adding aquifer education to our school curriculum would help to create an awareness.

## **Housing/Economic Development-**

Long Island is very auto dependent which adds to the cost over already high priced housing. We would like to create incentives to reduce auto dependent communities and for more areas of affordable housing. Density incentives for communities that want them. Green incentives for building owners that want to retrofit. Provide incentives to the green industry to come to Long Island to employ our young people and providing training. This also includes green construction and agriculture. Support a green energy innovation economy creating a type of brand of sustainability and creating awareness to the public.

## **Transportation/Land Use**

Keep in mind this is for a post-Sandy Long Island. There will be Eastside Access, Second Track, and additional service to the east end. So there are targets to increase rail.

In Nassau County the bus runs very efficiently and although ridership is down due to some funding cuts. Suffolk is looking to increase service and Sunday service with some dollars on the way. There is also a study for BRT that will support Rte 110. Expanded bus service is an opportunity.

There are a series of tax incentives and others to help employers reduce VMT by aspects such as telecommuting and commuter transit benefits.

Some may have seen Newsday showing that we have some of the highest pedestrian accidents in NYS and so pedestrian safety is a must leading many of LI municipalities to adopt complete streets. Unfortunately implementation funding is a challenge.

Neal- Want to encourage the conversion to cleaner fuel for municipal trucks, heavy trucks and others.

Eric-rail freights can score high at getting trucks off the road although we haven't heard a huge demand from the public. This can work in certain communities and rail freight is something we are considering.

Land Use is not something the state controls and decisions are made locally but some decision can be made based on communities stating what is happening now. Focus TOD support for housing in downtowns where there is support from the market. Babyboomers have shown in a recent poll that they are now preferring to be in the downtowns as well as the young people.

Increase the amount of open space protection. This can be in balance with communities that want more development. The 2% real estate transfer tax on the five east end towns has been a benefit but not so much in communities like Brookhaven where it has not been implemented.

Post Sandy- Foster an island-wide storm resistant natural buffer where there is an opportunity.

## **Climate Change-**

All of these areas have ideas for future climate change and address what is happening now. We are looking at what we will have to face in our future if the climate continues on its current path. Some will cause health dangers. We have vulnerable infrastructure. We also have a growing vulnerable population. Additionally there are business risks.

There are 2 ways to address. First is policy based such as flood map areas and comprehensive plans may need to consider more of the potential issues. Second is rebuilding and renovating homes.

### **Comments:**

What about pesticides and other pollutants?

- Large companies polluting for years, 60 chemicals found and medications, manure, etc.

Development should come from people and private sector not government.

Government is geoengineering our environment

Should government create restrictions on idling vehicles?

East End likes driving, folks should be able to choose auto oriented and transit oriented communities.

Smart meters toxic - 2 Miles

List which organizations have provided input.

What's here on the ground, in the air, in the water--where are we?

DEC Public hearing - demand they reduce pesticides. April 3 - SCCC

Can local municipalities ban pesticides? Preempted by state law.

Bank loans instead of grants to help businesses post-Sandy.

Brownfield sites used for composting

Tax incentives for telecommuting, etc.

Monorail instead of HOV lane?

Local tax on chemicals?

Myth or fact in energy conservation ie. Radio show said to shut engine off in traffic -

### **Closing-**

Eric Alexander provided input on the next steps. He also encouraged participants to provide us with any comments they have via the form or the website.

Vision asked if there were any other final questions or concerns – being there were none it was outlined that the plan after input from the session will be presented to NYSERDA for approval in the coming weeks.

**List of Participants in Cleaner Greener Communities Long Island planning process  
Compiled by Vision Long Island, April 2013**

<b>Organization</b>	<b>Last</b>	<b>First</b>
AARP	Stoner	Will
ABCO	Seubert	Don
AECOM	Dale	Diane
AECOM	Goldberg	Brian
AECOM	Atkinson	Jane
AECOM	Thompson	Jonathan
AECOM	Bonham Carter	Claire
AERTC- Advanced Energy Research & Technology Center	Kramer	Jack
AHRC	Ungarino	Nancy
AKRF	Zanca	Jessica
AKRF	Fawaz	Marwa
Aragona's Pizzeria	Escobar	Monica
AVR Realty	Ferruggiari	Brian
The Babylon Project	Zuba	Nicholas
Baldwin Civic Association	Hill	Sara
Bartone Properties	Bartone	Antony
Bellmore Chamber of Commerce	Ray	Patrick
Bethpage Public Library	Lovisolo	Lois
Bethpage Public Library	Lugta	Denice
Bikes for Better Long Island	Hager	Andrew
BluePhoenix	Bailey	Mike
BluePhoenix	Licata	John
Bolt Bus	Schoolman	Michael
Brentwood Summit Council	Milazzo	Mike
Brookhaven National Laboratory	Dascoli	Jean
Brookhaven National Laboratory	Detwieler	Nora
Brookhaven National Laboratory	Johnson	Sherry
Brookhaven National Laboratory	Williams	Jeff
Brookhaven Rail Terminal	White	Judy
Building Trades Council	Zarcone	Peter
California Cool Roofs	Biamonte	William
Cameron Engineering	Berg	David
CARich Consultants	Weinstock	Eric
Central Islip Chamber of Commerce	Cavanaugh	Deborah
Central Islip Civic Council	Rotunda	Debbie
Central Islip Coalition of Good Neighbors	Sandler	Ampora
Citibank	Lancaster	Eric
Citizens Campaign for the Environment	Murphy	Maureen
Citizens Campaign for the Environment	Esposito	Adrienne
City of Glen Cove	Morris	Kelly
City of Glen Cove	Suozzi	Ralph
City of Long Beach	Schnierman	Jack
Clean Energy Business Incubator Program (CEBIP)	Hamilton	David
Clipper Ship Tea Company	Warsinowik	Melissa
CNU New York	Wouters	Marc
CNU New York	Steinshneider	Paddy
CNU New York	Gould	Larry
Cold Spring Chamber of Commerce	Candelora	Peter
Columbia Earth Institute	Cangelosi	Carl
Coalition for a Safer Manhasset	Auriemma	Sue
Community Development Corporation (CDC) of LI	Hammons	Corinne
Community Development Corporation (CDC) of LI	Olsen	Rosemary
Community Development Corporation (CDC) of LI	Lutgen	Elizabeth
Community Development Corporation (CDC) of LI	Garvin	Marianne
Community Development Corporation (CDC) of LI	Anderson	Eileen
Community Housing Innovations	Roberts	Alec
Community National Bank	Scattura	Vita
Concern for Independent Living	Fasano	Ralph
Concerned Citizens of Farmingdale	Grello	Mike
Concerned Citizen's Plainview Old Bethpage	Meschkow	Lance
Concerned Citizen's Plainview Old Bethpage	Meschkow	Carol
Conservation Service Group (CSG)	Bontempi	Michelle
Conservation Service Group (CSG)	Teubner	Brian
Conservation Service Group (CSG)	Hunt- Martorano	Ashley
Conservation Services Group / LIPA	Miehling	Don
Cornerstone Church of God in Christ	Hale	Bishop Harrison
Crystal Lighting	Comunale	Patrick
Cushman \$ Wakefield	Waldt	Peter

<b>Organization</b>	<b>Last</b>	<b>First</b>
CW Post- Earth & Env Science, Pell Hall	Carlin	Prof. Scott
D&F Development Group	Florey	Peter
DJL Consulting/Clean Vehicle Solutions	Lynch	Dennis
Dowling College	Rogers	Dr. Nathalia
Dowling College	Zolfo	Dr. Elana
Drug Free LI	Rappa	Lisa
Drug Free LI	Talento	Janice
Drug Free LI	Chambers	Shelly
Dryad Tree & Shrub Diagnostics	Reidy	Frances
East Meadow Chamber of Commerce	Rome	Dolores
East Williston School District	Finkelstein	Steve
Electrical Training Center	Gargen	Tom
Elmont Chamber of Commerce	Tallini	Muzzio
Elmont Civic Association	Burnett	Gina
Empire State Future	Fleischer	Peter
Empower Solar	Schieren	David
Empower Solar	Bono	Tara
Energeia Partnership	Engelhardt	Nancy
Engel Burman	Krieger	Steven
Farmingdale Chamber of Commerce	Podolski	Debbie
FEMA	Welcome	Dwain
FEMA	Cuddy	Ben
Freeport Chamber of Commerce	Howes	Lois
Friends of the Bay	Aiken	Pat
Friends of Freeport	Cantwell	Rich
Friends of Freeport	Carucci	Cynthia
Friends of Freeport	Cantwell	Donna
Friends of Sands Point Preserve	Miller	Mary
Geatrain Engineering	McGovern	Tom
Glen Cove Business Improvement District	Koehler	Francine
Good Harvest Financial Group	Stein	Ron
Gordon Heights Civic Association	Crowder	Lillie
Governor Cuomo's Office	Martella	Scott
Great Neck Chamber of Commerce	Grossman	Dennis
Greater L.I. Clean Cities Coalition	Ebert	Rita
Greater L.I. Clean Cities Coalition	Lynch	Dennis
Greater L.I. Clean Cities Coalition	Dowd	Donna
Greater L.I. Clean Cities Coalition	Leddy	Tom
Green Logic	Harsch	Al
Greenman-Pedersen, Inc.	Horn	Mayer
Greenman-Pedersen, Inc.	Tuyn	William
Group for the East End	Christrup	Judy
H2M Group	Scheiner	Bob
H2M Group	Hearl	Steve
Hammer Magazine	Rigrod	John
Hardesty & Hanover	Panchyk	Richard
Harras Bloom & Archer	Archer	Keith
Hauppauge Industrial Association	Alessi-Micelli	Terri
Healthy Planet	DiBenedetto	Bob
Heartland Business Park	Wolkoff	David
Hempstead Chamber of Commerce	Baum	Leon
Hempstead Harbor Protection Committee	Swensen	Eric
Home Energy Solutions	LaMay	Glenn
Honeywell /EmPower NY	Walsh	Virginia
Hicksville Chamber of Commerce	Chitty	Lionel
Hicksville Chamber of Commerce	Pavone	James
Hicksville Chamber of Commerce	Robertson	Philbert
Hicksville Community Council	Sokenis	Stephanie
Hicksville Gardens Civic Association	Goessman	Henry
Huntington Station Shared Vision	Harris	Matt
Huntington Station Business Impovement District		
Huntington Township Chamber of Commerce	Bontempi	Bob
Huntington Conservation Board	Squires	Joy
Infosys International, Inc.	Silleti	Cynthia
Integrity Home Energy Assessments	Maschke	David
International Code Council (ICC)	Johnson	Bruce
It's My Bag	Torrellas	Tonia
JJ Energy Associates	Eff	John
Jobs with Justice LI Chapter	Oberwager	Charlene
Jobs with Justice LI Chapter	Koubek	Dr. Richard
Johnson Controls/LIPA	Burke	Tom

<b>Organization</b>	<b>Last</b>	<b>First</b>
Keep West Islip Green	Williams	Kathy
Kimmel Foundation	Bourne	Patricia
Kushnick/Pallaci PLLC	Kushnick	Larry
Lake Ronkonkoma Civic Association	Schramm	George
Leadership Huntington	Laible	Katheryn
Leadership Huntington	Fitzsimmons	Trudy
Leviton	Miller	Neil
Lindy Manpower	Castiglia	Amy
Lindy Manpower	Belling	Dave
LISTNET	Goldsmith	Peter
LISTNET	Lepinsky	Tammy
LI University	Sprintzen	Dr. David
LI University	Carlin	Scott
LI Business Council	Fonti	Robert
LI Business Council	Kyle	Chris
LI Business News	Winzelberg	David
LI Coalition for the Homeless	Guarton	Greta
LI Community Foundation	Jones	Sol Marie
LI Dispute Resolution Center	Scheiner	Gregg
LI Energy Partners	Glace	Andrew
LI Greenway & Health Trails	Vitti	Michael
LI Hispanic Chamber of Commerce	Vasquez	Luis
LI Minority Association	Vides	Juan
LI Minority AIDS Coalition	Aziz	Rabia
LI Minority AIDS Coalition	O'Connor	James
LI Mid-Suffolk Business Association	Fazio	Ernie
LIPA	Hoefler	Walter
LIPA	Stebbins	Todd
LIPA Energy products	Cassano	John
LIPA	Zaweski	Dan
LIPA	Guzzetta	Lisanne
LIPA	Deering	Michael
LI Real Estate Expo	Neuwirt	Mark
LI Real Estate Expo	Michael	Michelle
LI Regional Planning Council	Longwirth	Cara
LIRR Commuter Council	Epstein	Mark
LISTNET	Goldsmith	Larry
Livingston Development Group	Lanning	Keith
Locally LI	Boo	Melissa
Local 338 RWDSU	Durso	John
Long Island Community Foundation	Alfonso - Jones	Sol Marie
Long Island Federation of Labor	Clayman	Roger
Long Island Federation of Labor	Ullo	Amy
Long Island Energy Partners	Glace	Andrew
Lynch's Garden Center	Cunningham	Kathy
Mastic Beach COAD	Siebert	Jon
Mastic Beach COAD	Lissy	Victoria
McAllister Consulting	McAllister	James
MDF Development	Frank	Matt
M3D Consulting	Camou	Maya
Medford Civic Association	Seubert	Pat
Melville Chamber of Commerce	DeLuise	Mike
Mercury Solar	Owen	Stephen
Merrick Chamber of Commerce	Marchesella	Julie
Middle Island Civic Association	Talbot	Tom
Middle Island Civic Association	Bailey	Gail
Mill Creek Residential	Rigopoulos	Maria
Molloy College	Thompson	Ed
Nassau Coalition of Civic Associations	Borecky	Claudia
Nassau Community College	Monroe	Marilyn
Nassau Council of Chambers of Commerce	Murray	Chris
Nassau Council of Chambers of Commerce	Chertow	Sylvia
Nassau County Comptroller's Office	Hernandez	Jostyn
Nassau County Office of Housing	Crean	Kevin
Nassau County Planning Department	Sallie	Sean
Nassau County Planning Department	Sood	Satish
Nassau County	Solages	Hon. Carrie
Nassau County	Mastine	Donna
Nassau County	Cammarata	John
Nassau County Village Officials Association	Tackenberg	Warren
National Grid	Keating	John

Organization	Last	First
Network for New Energy Choices	Rabin	Kyle
Neighborhood Network	Maratos	Demo
Nesconset Chamber of Commerce		
NYS Department of Parks	Foley	Brian
NYS Department of Transportation	Sporn	Heather
Northport Village Merchants Association	Berke	Artie
North Shore LIJ	Rosen	Neil
North Shore LIJ	Moscola	Joseph
NuHealth	Rizzo	Craig
NY Building Tech Group/ Habitat for Humanity	Baccarella	Tom
NYCOSH	Mattace	Ernie
NY Institute of Technology	Banhazl	Greg
NY Institute of Technology	Eff	John
NY Institute of Technology	Meyland	Sarah
NY Institute of Technology	Baurtiaz	Gree
NY Metropolitan Transportation Council	Southe	Sherry
NY Metropolitan Transportation Council	Bogaz	Gerry
NY Metropolitan Transportation Council	McAuliffe	Larry
NYS Department of Environmental Conservation,	Scully	Peter
NYS Department of Environmental Conservation	Shah	Ajay
NYS Department of Environmental Conservation	Rahman	Syed
NYS Director of Smart Growth	Beyer	Paul
NYS Parks	Foley	Brian X.
NYS Assembly	Hennessey	Edward
NYS Senate	Burke	Justin
NYS Senate	Martins	Hon. Jack
NYPA	Frigeria	Vincent
NYSERDA	Ranode	Sangeeta
NYSERDA	Robbins	Lindsay
Oceanside Chamber of Commerce	Meditz	Cliff
Oil Heat Institute of LI	Rooney	Kevin
Office of Congresswoman Carolyn McCarthy	Chafee	Chris
Old Lindenmeyer Association of Merrick	Stonehill	David H.
Oyster Bay Main Street Association	Kremer	Isaac
PC Architects	Henlen	Eric
P S and S	Samaroo	Keith
Peconic Estuary	Branco	Alison
Peconic Green Growth	Berry	Glynis
Peconic Institute	Haley	Evan
Peconic Institute	Klughers	Deborah
Peconic Institute	Botos	John
Permanent Citizens Advisory Committee to the MTA	Wells	Jan
Permanent Citizens Advisory Committee to the MTA	Shannon	Ellyn
Peter Caradonna Architects	Caradonna	Peter
Peter Caradonna Architects	Heuler	Erik
Plainview Old Bethpage Chamber of Commerce	Carlow	Francesca
Port Jefferson Business Improvement District	Schaeffer	Tom
Port Washington Business Improvement District	Smithheimer	Roy
Porter Trejo Action Network	Walters	Bazeel
Porter Trejo Action Network	Siniscalchi	Reba
Power Up Communities	Laborde	Edgard
Public Relations Professionals of LI	Wolfe	Mindy
Public Relations Professionals of LI	Christie	Ellen
RCRG Group	Hamilton	Harold
Rauch Foundation	McNally	John
Regional Plan Association	Dennis	Brian
Regional Plan Association	Kilroy	Emily
Regional Plan Association	Freudenberg	Robert
Renaissance Downtowns	Palanker	Brandon
Renewable Energy LI (RELI)	Raacke	Gordian
Renewable Energy LI (RELI)	Fiteni	Beth
Residents for a More Beautiful Port Washington	Germain	Mindy
Riverhead Chamber of Commerce	Deluca	Brian
RMB Development	Bivone	Rich
Roel Resources	Roel	Ron
Ruskin Moscou Faltishek	Leno	David
Sandy River Charitable Foundation	Berry	Nathaneal
Sayville Chamber of Commerce	Etts	Bill
Senator Kristin Gillibrand Office	Walsh	Kristin
Senator Schumer's Office	Strober	Kyle
Sheldrake Organization	Campbell	Don

Organization	Last	First
Shoreham Civic Association	Belsky	Richard
Sierra Club	Finkelberg	Jack
Sierra Club	Stegemann	Bill
Sierra Club	Kinwan	Mark
Sierra Club	Gollan	Peter
Sierra Club LI Chapter	Fasullo	Jane
Sierra Club's Beyond Coal Campaign	Dix	Lisa
Small Business Development Center	Wesnofske	Lucille
Smithtown Chamber of Commerce	Mancini	Mark
Southampton Citizens Forum	Kahl	Elaine
Sound Energy Coalition	Lembo	Mark
Source the Station	Porter	Ryan
South Asian Rotary	Ratnam	Dev
Southampton Sustainability Committee	McEwan	Fred
Southampton Sustainability Committee	Plouff	Lizabeth
St. Josephs College	James	Graham
Starflower Experience	Morella	Lynda
Starflower Experience	Farber	Laurie
Starflower Experience	Pawlukojc	Kaitlyn
Suffolk Community College	Ade	Michael
Suffolk County Department of Economic Development	Dale	Dorian
Suffolk County Economic Devt	Broughton	Lisa
Suffolk County IDA	Mannetta	Anthony
Suffolk County Department of Health	Juchatz	Amy
Suffolk County Legislature	Di Martino	John Paul
Suffolk County Police (Retired)	Moore	Robert
Suffolk County Planning Dept.	Freleng	Andrew
Suffolk County Water Authority	Gallagher	Carrie
Suffolk Theatre	Hackett	Susan
SUNY Stonybrook	Sellers	Christopher
Sunshine Plus	Creamer	Kevin
Sustainability Institute at Molloy College	Haas	Johanathan
Sustainability Institute at Molloy College	Lewis Esq.	Neal
Sustainability Institute at Molloy College	Manitt	Andrew
Sustainability Institute at Molloy College	Musarra	Leigh
Sustainable Long Island	Engel	Amy
Sustainable Long Island	Tirado	Fernando
Jobco Organization	Puntillo	Michael
The Posillico Group	Trotta	John
Telesis Solutions Group	Brennon	George
The Art Don't Stop	Berman	Todd
The Corridor	Kent	Barbara
The Corridor	Lieber	Vivian
Touro Law Center	Rosenblum	Kent
Touro Law Center	Karpf	Jason
Town of Babylon	Schaffer	Hon. Rich
Town of Babylon	Jacob	Doug
Town of Babylon	Scheiger	Will
Town of Babylon	Keyes	Jonathan
Town of Brookhaven	Kirkland	Elizabeth
Town of Brookhaven	Andrade	Christopher
Town of Brookhaven	Kepert	Hon. Connie
Town of Brookhaven	Fiore-Rosenfeld	Hon. Steve
Town of Brookhaven	Romaine	Hon. Ed
Town of Brookhaven	Alexander	Elizabeth
Town of East Hampton	Shaw	Kimberly
Town of Hempstead Building Dept.	Schwarz	Mark
Town of Hempstead	Goosby	Hon. Dorothy
Town of Hempstead Hempstead Township	Steppe	Bob
Town of Hempstead Building Dept.	Rottkamp	John
Town of Hempstead Hempstead	Schneider	Tara
Town of Hempstead	Fisher	Rita
Town of Hempstead Planning & Economic Development	Fisher	Curtis E.
Town of Huntington	Petrone	Hon. Frank
Town of Huntington	Carr	Edward
Town of Huntington CDA	Aloise	Doug
Town of Huntington CDA	Cergol	Joan
Town of Huntington CDA	Grant	Bruce
Town of Huntington	Litzke	Robert
Town of Huntington	Laux	Matt
Town of Huntington	Sheehan	Neal

<b>Organization</b>	<b>Last</b>	<b>First</b>
Town of Huntington	Myles	Margo
Town of Huntington	Ingerman	Phil
Town of Huntington	Kinsley	Terese
Town of Islip	Croci	Hon. Tom
Town of Islip	Bergin Weichbrodt	Hon. Trish
Town of Islip	Genaway	Dave
Town of Islip	Boyle	Patrick
Town of Islip	Flotteron	Hon. Steve
Town of Islip	Williams	Kathleen
Town of Islip CDA	Fink	Paul
Town of Islip	Hoffmeister	Eric
Town of North Hempstead	Kaiman	Hon. Jon
Town of North Hempstead	Russell	Hon. Viviana
Town of North Hempstead	Dwyer	Hon. Tom
Town of North Hempstead	Grushack	Sydnee
Town of North Hempstead	Karavasilis	Billy
Town of North Hempstead	Burton	Richard
Town of North Hempstead	Levine	Michael
Town of North Hempstead	Reid	Frances
Town of North Hempstead	Sikiric	Igor
Town of Oyster Bay	Macagnone	Hon. Anthony
Town of Oyster Bay	Jordan	Sean
Town of Oyster Bay Economic Development	Bianculli	Linda
Town of Oyster Bay Economic Development	Healey	Ralph
Town of Oyster Bay	McCaffrey	James
Town of Oyster Bay	Regenbogen	Debra
Town of Oyster Bay, Environmental Resources	Van Dyke	Jaime
Town of Oyster Bay	Kearney	Nancy
Town of Rivehead	Walter	Hon. Sean
Town of Riverhead	Wooten	Hon. James
Town of Riverhead	Lewis	Jill
Town of Riverhead	Kempner	Chris
Town of Smithtown	Vecchio	Hon. Pat
Town of Smithtown	Feld-Murray	Allyson
Town of Smithtown,	Barnett	Russell
Town of Smithtown,	Flynn	David
Town of Southold	Terry	Mark
Town of Southold	Lanza	Heather
Town of Southold	Russell	Hon. Scott
Town of Southampton	Eisenberg	Freda
Town of Southampton	Throne-Holst	Hon. Anna
Town of Southampton	Collins	Kyle
Town of Southampton	Fetten, P.E.	Christine
Town of Southampton	Zappone	Frank
Town of Southampton	Neely	Tom
THEM Media	Harding	Karen
TRC Solutions	Zilka	Katheryn
Tri Business & Career Center	Feifer	Susan
Tri-State Transportation Campaign	Lynch	Ryan
Tri-State Transportation Campaign	Vanderpool	Veronica
UCOMM Radio	LaGrange	Kris
Uniondale Community Council	Melkonian	Martin
Uniondale Chamber of Commerce	Maynard	Jeanine
United Way of LI	Wertheim	Rick
United Way of LI	Fligstein	Craig
US EPA	Cochin	Ted
US Green Building Council	Gorman	E.
VEDI, Inc.	Mereday	Meta
Village of Farmingdale	Harty	Brian
Village of Farmingdale	Eckstrand	Hon. Ralph
Village of Flower Hill	Phillips	Elaine
Village of Flower Hill	Shatzkamer	Ronnie
Village of Freeport	Martinez	Hon. Jorge
Village of Freeport	Kennedy	Hon. Robert
Village of Freeport	Jackson	J. Barrington
Village of Freeport Electric	Endo	Les
Village of Great Neck Plaza	Celender	Hon. Jean
Village of Hempstead	McQueen	Delores
Village of Island Park	Ruziecka	Hon. James
Village of Island Park	Katter	Kent
Village of Malverne	Bailey	Mike

Organization	Last	First
Village of Northport	Tobin	Hon. Henry
Village of Patchogue	Pontieri	Hon. Paul
Village of Rockville Center Electric	Pallas	Paul
Village of Rockville Center Electric	Casella	Dan
Village of Westbury	Cavalaro	Hon, Peter
Vision Long Island	Alexander	Eric
Vision Long Island	Klein	Tara
Vision Long Island	Ayala	Lucy
Vision Long Island	Weber	Tawaun
Vision Long Island	Ward	Elissa
Wendel Energy Services	Adelman	Ali
Wendel Energy Services	Giantomaso	Alan
Wendel Energy Services	Gowen	Dean
West Hempstead Civic Association	Norton	Rosalie
Westbury Business Improvement District	Blinn	Dawn
Westbury Historical Society	Albertson	Ann
Workforce Development Institute	Harrison	Michael
Zyscovich Architects	Rosenbloom	Larry
	Taneja	Mohinder
	Dutchen	Michelle
	Reed	James
	Bailey	Mike
	Burrett	Dwayne
New Hyde Park	Gazzera	F.
	Gordon	Donovan
	Farmer	Christa
	Hamilton	Harold
Southampton	Hawk	Nancy
	Westfall	James
	Sachs	Laura
	Danc	Alex
	Tettreault	Tim
	Bailey	Mike
	Guerra	Gabrielle
	Edwards	Bruce
Bay Shore	Pagdanganan	Belinda
Lindenhurst	Gruttmeyer	Larry
	Lane-Weber	Adam
	Coleman	Calandra
	Wolbert	Anthony
	Klughes	Deb
	Kearns	Matthew
	Armstrong	Tyler
	Farrell	Earl
	Butera	Monica
	Lorenzo	Daniel
	Van Gulde	Rose
	Russell	Joe
	Perriera	Glenn
	Brown	Marshall
	Calamia	Mary
	G.	Michael
	Soloman	Stan
	Selts	Eileen
	Manual	La'Asia
	Alfieri	Carlene
	Duva	Joe
	Reisman	Howard
	Reisman	Ann
	Gamby	Nancy
	Frischia	Nina
	Hoffman	David
	Marino	Julia
	Pfeifan	Scott
	Van Hemmen	Annemarie
	Weingart	Mimi
	Dantoni	Vincent

