

Climate Action Planning Town of Cortlandt, NY



CLIMATE SMART COMMUNITIES

PRESENTED BY DANI GLASER
GREEN TEAM SPIRIT

SUSTAINABILITY CONSULTANT TO TOWN OF CORTLANDT

Town of Cortlandt, NY



HISTORY OF CLIMATE ACTION

Town of Cortlandt Supervisor Linda Puglisi



“Our Town has a long-standing record of environmental stewardship exemplified by our leadership in protecting open space, natural resources, and smart growth practices. This “Renew Cortlandt” website is a center piece of our green initiative to involve the local community in working with the Town to reduce their energy consumption by providing incentives and educational information.”

Linda Puglisi, *Supervisor*
Town of Cortlandt

Town of Cortlandt History of Climate Action



Renew Cortlandt

[HOME](#) [local GREEN PROJECTS](#) [incentives for GREEN HOMES](#) [incentives for GREEN BUSINESS](#) [how to BUY GREEN](#) [join the effort GET INVOLVED](#) [still confused? CONTACT US](#)

Welcome

Thank you for visiting RenewCortlandt.org, a one-stop resource for members of our community to learn more about energy conservation and opportunities to reduce home and business energy expenses.

[Learn what is here for you](#)

 Read Current Edition of the [Renew Cortlandt Newsletter](#)
 [PDF version](#)

Town Event You Need to Know

 Saturday
September 24, 2011
9:00am - 2:00pm

[Wanted - Local Green Vendors](#)

Our Commitment



"Our Town has a long-standing record of environmental stewardship exemplified by our leadership in protecting open space, natural resources, and smart growth practices. This "Renew Cortlandt" website is a center piece of our green initiative to involve the local community in working

Start Here

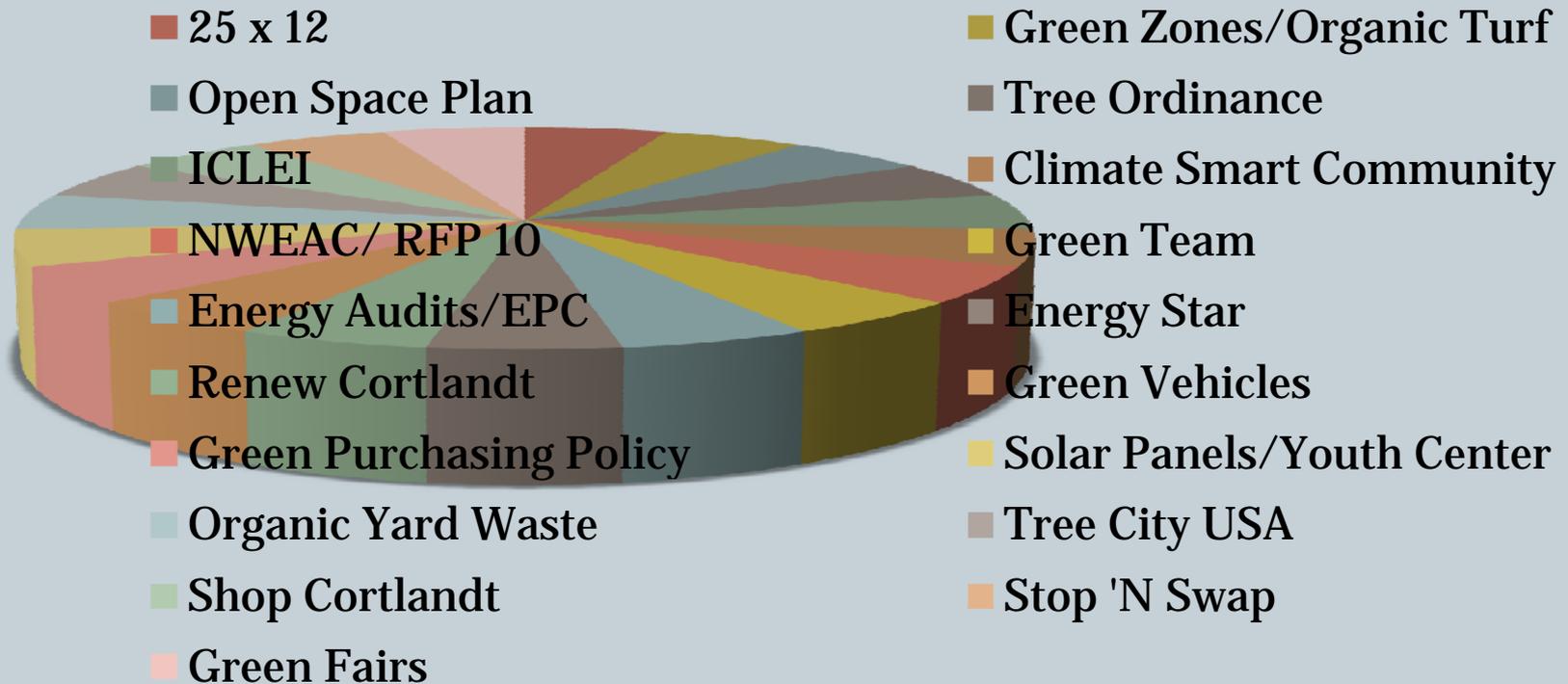
Take advantage of assistance and incentives to be more green:

-  [Browse showcase projects in the Town of Cortlandt](#)
-  [Find incentives for homes](#)
-  [Find incentives for businesses and organizations](#)
-  [Learn about green energy products and services](#)
-  [Get involved with green community organizations and initiatives](#)
-  [Events Calendar](#) **NEW**

Town of Cortlandt History of Climate Action



GREEN INITIATIVES



Northern Westchester Energy Action Consortium



NWEAC

Northern Westchester Energy Action Consortium



- *“NWEAC members collaborate to reduce our reliance on fossil fuels, save money for our residents and businesses, increase energy efficiency in our communities, enable renewable energy generation, increase economic activity, and align our local efforts with county, state, and federal initiatives.”*

Bedford	Mt. Kisco	Peekskill
Buchanan	New Castle	Pound Ridge
Cortlandt	North Castle	Somers
Croton on Hudson	North Salem	Yorktown
Lewisboro	Ossining	

Northern Westchester Energy Action Consortium



- **The driving force for the creation of the Consortium was the desire to substantially reduce Greenhouse Gas (GHG) emissions in our communities in order to contribute to the mitigation of the effects of climate change.**
- **Greenhouse Gas Inventories (GHG) and Climate Action Plans (CAP) for consortium towns is an essential first step in addressing these impacts.**

NWEAC: Challenges of GHG/CAP Process



- **While all NWEAC towns were members of ICLEI, only 3 had conducted GHG inventories & CAP's. WHY?**
 - It's a complicated, labor intensive process!
 - Requires a project manager
 - Time consuming for staff and volunteers
 - Financial pressures facing NWEAC towns
- **Goal:**
 - Move each member town forward to completing a GHG inventory and CAP to collectively reduce emissions
- **Solution:**
 - Seek grant funding and hire a contractor

NWEAC Benefits of Collaborative GHG/CAP Effort



- 1. Affordable; reduced staff & volunteer time**
- 2. Comparable data; share best practices across towns**
- 3. Roadmap for affordable solutions with the greatest GHG reducing impacts**
- 4. Forecast GHG emissions scenarios: best/worst case**
- 5. Develop emissions reduction targets & CAP from GHG inventory results**
- 6. Develop monitoring framework for ongoing data collection**
- 7. Resulting CAP provides towns with actionable strategies to engage the community**

NYSERDA RFP 10



GHG & CAP

**ECOLOGY & ENVIRONMENT (E&E)
BLUE SPRINGS ENERGY (BSE)**

NYSERDA RFP 10 -Energy Management Svc.



- RFP 10 was submitted on behalf of 7 NWEAC towns
- \$279,800 grant awarded to:
 - Begin/complete (GHG) emission inventories & develop CAP's
- **Winning Project Team:**
 - Ecology & Environment (www.ene.com)
 - Blue Springs Energy (www.bluespringsenergy.com)
- Project Schedule: Jan 2011 – Jan 2012

E&E - GHG Inventory Process



- **Select baseline year (2010)**
- **Identify data sources & responsible staff**
- **Collect data & calculate emissions using latest Local Government Operations Protocol (LGOP) or other appropriate tool**
- **Create worst case, business as usual & improved emissions forecast**
- **Prepare GHG inventory report & spreadsheet tool (compatible with ICLEI software)**
- **Present findings to stakeholders**

Data Collection Summary – All Towns



Buildings & Facilities	Refrigerant type/records	Future Plans	Vehicle type & totals	Other travel
Energy type/use/cost	Paints/solvents	Water/Wastewater	Miles/fuel usage	Air/train travel
Electrical supply source	Building improvement plans	Energy type/use/cost	Future plans	Travel policies
Renewable Energy Credits	Traffic Signals & Streetlights	Volume throughput	Employee Commute	Waste
Square footage	Energy use/cost	Operations/maintenance	# of employees	Volume waste
Year built/renovated	Volume throughput	Future Plans	Zip code	Volume recycled
Mechanical systems	Operations/maintenance	Vehicle Fleet	Personnel plans	Data Contact

Town of Cortlandt Progress



- Staff provided over 300 electronic files with billing data & facility information
 - Time consuming & intensive process
- Staff accompanied E&E consultants on site visits to nearly 30 facilities
- GHG inventory final draft just completed
 - Preliminary suggestions
- Report shows emissions by:
 - Scopes 1,2,3 (LGOP requirement)
 - Energy type (includes costs)
 - Building/Facility (includes costs)

E&E Data Output/Spreadsheet Tool



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10. Waste Recycling Summary
11. NERC in and outputs
12. Renewable Energy
13. NYPA 2010
14. NYPA raw data
15. Emission Factors
16. GWP

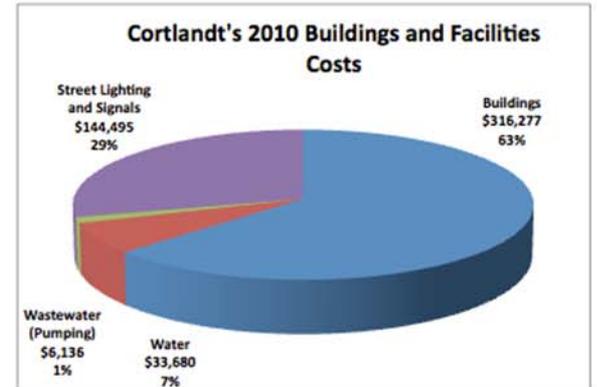
Snapshot TOC Summary Table



2010 Cortlandt Municipal Operations Energy and GHG Emission Inventory Summary Tables

Energy Billing Information

Energy Type	Use	Cost	Energy (mmBTU)	GHG (metric tons CO2e)
Electricity--kWh	Kwh	\$		CO2 e
Buildings	1,341,587	\$ 243,650	4,578	430
Water	115,995	\$ 25,916	396	37
Wastewater (Pumping) ¹	32,850	\$ 6,136	112	11
Street Lighting and Signals	711,444	\$ 144,495	2,428	228
Subtotal	2,201,876	\$ 420,198	7,513	706
Fuel Oil--Gallons				
Buildings	21,499	\$ 54,902	2,752	221
Water	2,965	\$ 7,560	379	31
Transportation: Municipal Use	132,414	\$ 421,746	16,461	1,319
Subtotal	156,878	\$ 484,209	19,592	1,570
Natural Gas--Therms				
Buildings	25,281	\$ 17,725	2,528	135
Water	-	\$ 204	-	-
Subtotal	25,281	\$ 17,929	2,528	135
Total		\$ 922,336	29,633	2,411



Energy and GHG Summary by End Use

End Use	Cost	Energy (mmBTU)	GHG (metric tons CO2e)
Buildings	\$316,277	9,858	786
Water	\$33,680	775	68
Wastewater (Pumping)	\$6,136	112	11
Street Lighting and Signals	\$144,495	2,428	228
Government Fleet	\$421,746	16,461	1,319
Total	\$922,336	29,633	2,411

	Cost	MMBTU	CO2e
Electricity	\$ 420,198	7,513	706
Fuel oil	\$ 62,462	3,131	251
Natural Gas	\$ 17,929	2,528	135

Energy and CO2e Savings Summary by Use

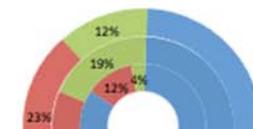
Uses	Energy Cost Avoided	Energy (mmBTU)	GHG Saved (metric tons CO2e)
Renewable Energy	\$ 1,452.26	29	2.76

CO2e Summary by Scope and Emissions

Source	Emissions	GHG (metric tons CO2e)
Scope 1 Direct Emissions		

2010 Cortlandt Facilities GHG Emissions, Energy Use, and Cost

■ Electricity ■ Fuel oil ■ Natural Gas



Town of Cortlandt GHG Process Experience



1. Data Collection

1. Time consuming & challenging, but essential
2. Maintaining data will be simplified with E&E's tool
3. Received suggestions on additional data to measure and ways to improve accuracy

2. Energy Saving Recommendations by Building

1. Preliminary GHG report identified Lighting, HVAC & Building Envelope improvements for 10 buildings
2. Town of Cortlandt already aware of need for many of these improvements

E&E – Climate Action Plan Process



- **The CAP process considers individual towns and their larger role as part of the NWEAC community & beyond:**
 1. **Quantify emission reduction potentials & develop reduction targets**
 2. **Hold stakeholder workshop to present findings & recommendations and gather feedback**
 3. **Develop a tracking & monitoring program to measure progress toward chosen targets**
 4. **Prepare the Climate Action Plan report designed for ease of understanding for all stakeholders in the government and community.**

TOWN OF CORTLANDT



EXPERIENCE & NEXT STEPS

The Town of Cortlandt Ready for Climate Action



- 25 x 12 - In 2009, the Town set an ambitious goal to achieve 25% energy reduction in town government operations by 2012
- The Green Team and new environmental policies have led to leaner/greener operations
- The greatest obstacle to achieving this goal are the mechanical retrofits and associated costs
- In May 2011, the Town, with the assistance of Blue Springs Energy, issued an RFP for an Energy Performance Contract (EPC) to make these improvements at no upfront cost to taxpayers
- The simultaneous EPC and GHG inventory process serve to strengthen the Climate Action Planning process

Beyond the CAP



- The Town of Cortlandt, the members of NWEAC and our surrounding community partners are committed to this work
- The GHG and CAP are intended to facilitate measurable, actionable improvements in our communities
- We understand that this is a continuous process of learning, educating, and motivating others
- Thank you Climate Smart Communities for motivating local action and providing a forum to share our work