

Solutions for Climate Change

October 6, 2010

The Climate is Changing

Since 1970:

- Global annual **average** temp. up nearly **1°**
- US annual **average** temp. up **1.8°**
- New York annual **average** temp. up nearly **2°**
- New York winter temperatures almost **5°** warmer

Joint National Academies of Sciences...

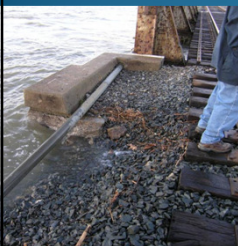
'The scientific understanding of climate change is now sufficiently clear to justify nations taking prompt action.'

Climate Change Impacts

- Higher Temperatures
- Water
 - Drought
 - Intense storms
- Health
- Sea level rise



Sea Level Rise in NYS



Hudson Valley railroads are close to sea level

- 15" in NY Harbor in 150 yrs
- Harbor tide gages show rise of 4-6" since 1960
- Causes: warmer water takes more space, melting ice sheets, geologic forces
- Sea level rise affects all of the estuary - 1' - 4' by 2080s

Changes in Your Backyard

- Later frost in fall
- Earlier plant germination and blooms
- Earlier arrival of migratory birds
- Timing of lake ice formation and melting



What Do We Have to Do?

- Reduce greenhouse gas emissions 80 percent by 2050
- Assess vulnerability to climate change impacts and begin to prepare

What Can We Do?

- Energy efficiency/conservation
- Electricity:
 - Near-zero-carbon
 - "Smart" transmission
- Transportation: carbon-neutral
- Buildings: carbon-neutral
- Carbon sinks: land use
- Adaptation planning



Living 'Green'

Unprocessed, local food



Low-carbon Transport

Reuse, Recycle



Energy Conservation



Local Communities are Key



- Control buildings and land use
- Consume energy for services
- Manage solid waste
- Lead citizens

Familiar Strategies

Are Now Urgent!

- Smart growth
- Transportation-oriented, walkable communities
- Green buildings
- Waste management
- Open space
- Ecosystem Management



Climate Smart Communities

Information and assistance for

- Emissions reduction
- Adaptation planning

<http://www.dec.ny.gov/energy/50845.html>

Climate Smart Communities Pledge

1. **Pledge to Combat Climate Change**
2. **Set Goals, Inventory Emissions, Move to Action**
3. **Decrease Energy Demand** for Local Government Operations
4. **Encourage Renewable Energy** for Local Government Operations
5. **Realize Benefits of Recycling** and Climate Smart Solid Waste Management

Climate Smart Communities Pledge (II)

6. **Promote Climate Protection** Through Community Land Use Tools
7. **Plan for Adaptation** to Unavoidable Climate Change
8. **Support a Green Innovation Economy**
9. **Inform and Inspire the Public**
10. **Commit to an Evolving Process**

Climate Smart Communities

88 communities state wide acting locally to protect our climate
in the Hudson Valley

Albany County:

Albany;
Cohoes;
Watervliet;
Bethlehem;

Dutchess County:

Beacon;
Red Hook;
Rhinebeck

Greene County:

Cairo; Hunter;
Jewett

Orange County:

Woodbury

Rensselaer County:

Rensselaer,
East Greenbush

Rockland County:

County of Rockland,
V of Montebello

Ulster County:

Kingston;
New Paltz;
V of New Paltz;
Rosendale;
Saugerties

<http://www.dec.ny.gov/energy/56876.html>

Climate Smart Communities

Westchester County

New Rochelle;
Peekskill;
Yonkers;
Bedford;
Cortlandt;
Greenburgh;
Lewisboro;
Mamaroneck;
New Castle;
North Castle;
North Salem;

Ossining;
Pound Ridge;
Somers;
Yorktown;
V of Ardsley;
V of Dobbs Ferry;
V of Croton-on-
Hudson;
V of Hastings-on-
Hudson,

V of Larchmont;
V of Mamaroneck,
V of Mount Kisco;
V of Ossining;
V of Port Chester;
V of Tarrytown

<http://www.dec.ny.gov/energy/56876.html>



Typical CSC Accomplishments

- Task Forces and coordinators
- Recycling, waste reduction
- Energy audits; emission inventories; plans
- Energy management; efficiency improvements
- On-site renewable energy
- Public events : Reuse, Farmers markets, Awareness



Advanced CSC Projects

- Green Building programs
 - Public, residential
 - New, retrofit
- Efficient vehicles, VMT reduction
- Open space, tree ordinances
- Energy standards in codes, zoning
- Green workforce partnerships



Why become a CSC?

- Receive first hand CSC information and breaking funding news
- Featured as municipal program innovator
- May receive extra points in NYSERDA funding applications
- Listed on CSC website
<http://www.dec.ny.gov/energy/56876.html>

People are the Cause People are the Solution

- Excess greenhouse gas comes from human activities.
- We can find solutions.



Contact Information

- Office of Climate Change
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518-402-8448
- NYS Climate Action Council
www.nyclimatechange.us
- Climate Smart Communities
<http://www.dec.ny.gov/energy/50845.html>

