Counties at the Climate Crossroads: 
One County’s Journey

**Tompkins County’s Climate Actions, 2000 – 2035**

Martha Robertson, Chair, Tompkins County Legislature – NYSAC Fall Seminar – 9/17/19
2000 – First Solar in Tompkins County

April 2000:
High school students lobbied the Legislature!

147 KW solar array on library roof
2017 – 12,183 kWh!
Theme that persists: 3-legged stool

• Volunteers and activists: community voice
• Legislature: political leadership
• Staff: analysis and support from County Planning
Why do a GHGE inventory?

If you don't know where you're going, any road will take you there.

Inventories
1. 1998 Data - released in 2001
2. 2006 Data - released in 2007
3. 2008 Data - released in 2010; baseline for future reporting

1998 Tompkins County Community Emissions Sources

- Industrial: 6%
- Commercial: 22%
- Agriculture: 2%
- Residential: 17%
- Transport: 53%

1998 Tompkins County Government Emissions Sources

- Vehicles: 11%
- Buildings: 89%
- Outdoor Lighting: 0%
- Lighting: 0%
- Lighting: 0%

Prepared by Gwenael Fay
In cooperation with
The International Council for Local Environmental Initiatives
and the Tompkins County Planning Department
September 2001
Goal:
By 2008, County will cut emissions 20% below 1998 levels
2003-2007 Focus on Facilities, Recycling

County Recycling partners with nonprofit Finger Lakes ReUse to reduce waste stream by 60%.

Started long-term energy performance contracts; significant efficiency upgrades saved money!
First “Energy and GHG Emissions Element”

**Goal:**
Annually, reduce community GHGE by at least 2% of 2008 base year emissions.
Reach at least an 80% reduction from 2008 levels by 2050.
New Department of Health building received LEED Silver certification.

Installed solar PV on 7 County facilities, under lease with Solar Liberty, to generate **235 KW of solar energy.**
Electric Vehicles: Began purchasing EVs and installing charging stations. By end of 2019 we will have 23 EVs in fleet.

Biodiesel: Highway transitioned diesel vehicles to B20 biodiesel.
2009-2014 – Fracking presented new challenges

Dec. 17, 2014, NY Times headline: *Citing Health Risks, Cuomo Bans Fracking in New York State*

Activists, legislature, and staff all played a role
2016 – Science on fracking impacted our next GHG Inventory

Good news! Using 2008 method:
- Community emissions \(21\%\) ↓
- County government \(53\%\) ↓

*But there was more to the story....*
Methane – not the “cleaner” fuel

• 2008 - 2014: market switched from conventional to shale gas

• Research: Significant methane leaks from fracking, ranging from 5-19% of total produced *

• Global Warming Potential of methane – 86% more damaging than CO2 on 20-year time scale

• Need to prioritize most urgent actions to avoid tipping points

• Decided to document GHG emissions both ways – using 2008 assumptions and methodology revised in 2014 (12% leakage)

* More recent studies show lower leakage rates
Accounting for Fracked Gas

Using 2008 methodology:
- Community reduced 21%
- Government reduced 53%

Using 2014 methodology:
- Community increased 67%
- Government increased 10%
From 2014 Inventory – Direction Forward?

1. Move off natural gas ASAP
2. Transportation – reduce miles driven, use cleaner vehicles (prioritize EVs)
3. Keep growing renewables
Climate Smart Communities Silver: 4th silver-certified community in the State (highest level possible) for accomplishments in GHG reduction and climate adaptation.

Business Energy Advisors Program: Provides consultation on incentives, financing and options to reduce energy use and costs.
Hydropower – Restored 100-year-old plant

In 2017 produced ~80% of County government’s electricity.

Partnered with MEGA and Gravity Renewables
How to balance energy and economic development goals?

**Problem:** Gas moratorium in Lansing, community divided on solution

**Formed Task Force to recommend action**

**#1 Goal:** Work with the Public Service Commission and NYSEG to reduce dependence on gas, reallocate resource to industry

**Result:** PSC established Non Pipe Alternative, a model process to reduce use of gas.
Community Engagement
IDA gets involved: Solar Policy

- Promotes solar by providing single, predictable countywide policy
- Annual PILOT = $4,200 to $4,800/MW, with 2% increase/year
- New tax base, because developers can make projects work
- Results: 12 projects approved in 2 years, 47 MW, 9,600 – 14,400 homes
Green Buildings Enhanced Abatement

- **Six projects** using enhanced incentives in just **two years**
- Buildings achieve **40% improvement over State Energy Code**
- Use of **heat pumps even where gas is available**
- Complements IDA’s anti-sprawl “density policy” since 2001
NYS Partnerships – NYSERDA, NYPA, Upstate Airport Revitalization

Expanded airport on geothermal heating and cooling, with parking lot solar
Updates to disaster mitigation plans – every 5 years

Opportunity to **integrate adaptation and resiliency efforts**; FEMA funds plus Department of State funds to do comprehensive plan.

For example, 2016 drought – What infrastructure needs to change before the next drought?

**Communities that plan for resiliency recover more effectively and quickly.**
Tompkins County will lead by example in its own operations, while continuing to work with community, and work to influence state and federal policies.

Reduce GHG emissions from employee commutes

Agriculture: carbon capture and adaptation

Renewable heating and cooling
Proposed 2020-2024 Capital Plan

Achieve net-zero emissions by 2035

**Green Facilities - $32M, project $4M in grants**
- Including LED lighting, building envelope sealing, controls optimization, solar canopies, geothermal, solar PV, distributed battery storage, and fuel cells.

**Green Fleet - $2M**
- Will electrify 70 passenger vehicle fleet by 2025.
- Will replace 12-15 vehicles a year and construct charging stations.
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