

Proposed Changes to Comprehensive Plan from Planning Board's Building Energy Subcommittee

18 January 2019



Town of Dryden, NY

93 East Main Street

Overview

- Subcommittee formed November 2018
- Members: Joe Wilson, Jim Skaley, Deborah Cipolla-Dennis
- Purpose: To begin implementation of the Tompkins County Energy and Greenhouse Gas Emissions Policy.

Scope of Work

- Based on the County's Energy and Greenhouse Gas Emissions Policy, review and recommend updates to:
 - Comprehensive Plan
 - Local Zoning Law and Building Codes
 - Building Project Application Templates
 - Site Plan Review
- The intent is to reduce energy use and greenhouse gas emissions from the built environment in Dryden.

What is not in the Scope of Work

- Transportation
- Renewable Energy Production
- Carbon Capture
- Agriculture Practices
- Reduction of Waste
- General Update of the Comprehensive Plan

Proposed Changes – Page 5

- Add at the end of *Introduction* section under *Ongoing Initiatives*:

The 2018 International and National Climate Assessments indicate that the planet, at the current rate of warming, will exceed the 2°C warming resulting in an irreversible trend that is an existential threat to humans and the earth's ecology. Scientists have stated that it is essential to attempt to reduce the rate of increase in eCO₂ to zero by 2030 to keep warming at 1.5° C by 2100. Keeping global warming to 1.5° C would be the best option to reduce the most deleterious impacts of warming. County data collected in 2014 indicates that the greatest sources of GHG emissions, locally, are from transportation followed closely by residential and commercial structures.

As of 2018 the Town of Dryden had no energy or GHG emissions policy. For the Town to contribute to GHG reductions will necessitate changes to the Town's governing policies. Initial steps could include:

- A baseline survey of current GHG emissions
- Revisions to Planning Department Applications
- Revisions to Site Plan Review
- Revisions to the Town Building Code
- Revisions to the Town Zoning Laws
- Local amendments to SEQRA as authorized by State law
- Initiatives to assist homeowners and developers to make necessary changes to increase energy efficiency and take conservation measures.

Proposed Changes – Page 15-16

- ***Inventory and Analysis*** section add new subsection ***Current Structure Inventory***:

The following table lists the current structures in the Town as of 2018. This inventory was obtained from the Tompkins County Planning Department in December 2018. The “Town of Dryden” column excludes the structures in the villages.

- Add new Table 2-4.1 on Page 16 (next slide)

**Table 2-4.1
Current Structure Inventory – December 2018**

	Village of Dryden	Village of Freeville	Town of Dryden
Single Family	519	127	2327
Two Family	43	51	225
Three Family	9	1	16
Mobile Homes	1	2	385
Rural Residential	0	0	358
Multiple Residential	7	2	96
Seasonal Residential	0	0	6
Residential w/Commercial Use	3	1	5
Apartment	21	2	63
Motel	0	0	1
Mobile Home Park	0	0	14
Restaurant	1	2	2
Diner	2	0	0
Bar	1	0	1
Fast Food	1	0	0
Auto Dealer	1	0	0
Auto Body	2	2	11
Parking Lot	1	0	1
Warehouse	2	0	12
Storage	5	1	18
Fuel Storage	0	0	1
Mini/Wholesale Storage	0	0	8
Lumber Yard	0	0	1
Truck Terminal	0	0	1
Shopping Center	1	0	0
Retail Service	0	0	3
Large Retail	2	0	1
Small Retail	2	0	1
Bank	1	0	2
Office Building	9	3	12
Funeral Home	1	0	0
Attached Row Building	9	0	0
Detached Row Building	6	1	1
Converted Residence	3	2	0
Single Use Small Building	8	2	17
Mini Mart	2	0	3
Manufacturer	3	1	4
Aged Home (Nursing)	0	1	0

Proposed Changes – Page 33

Goals and Objectives section – under ***Introduction*** add following bullet:

- protect current and future residents' wellbeing by increasing climate change resilience throughout our community through strengthening infrastructure systems, increasing the use of renewable energy, reducing greenhouse gas emissions, and reducing energy use through building and renovating structures to be highly energy efficient.

Proposed Changes – Page 33

Goals and Objectives section – under ***Generally - Objectives*** add #7:

7. Efforts to reduce greenhouse gas emissions and adapt to a changing climate.

Proposed Changes – Page 34

Goals and Objectives section – under ***Commercial Development – Objectives***, paragraph #6:

Develop design standards to ensure safe, **sustainable**, and attractive commercial development site designs, including standards for traffic circulation, parking, pedestrian facilities, buffer areas, landscaping, site coverage, stormwater management, signage and outdoor lighting design.

Proposed Changes – Page 35

Goals and Objectives section – under ***Housing and Residential Development*** – ***Goal:***

Provide for a variety of **energy efficient**, affordable, high-quality housing options for all town residents

Proposed Changes – Page 35

Goals and Objectives section – under ***Housing and Residential Development – Objectives***, add paragraph:

Maintain an active search for funding to encourage existing homeowners and new developers to convert to renewable energy sources and improve building energy use to reduce energy consumption and greenhouse gas emissions.

Proposed Changes – Page 36

Goals and Objectives section – under ***Open Space and Environmental Protection – Objectives***, 3rd paragraph:

Encourage development that promotes conservation of energy and water resources, **minimizes greenhouse gas emissions**, and minimizes where possible adverse impacts such as loss of agricultural and forest lands, soil erosion and sedimentation, and stormwater runoff.

Proposed Changes – Page 39

Plan Synthesis section – under *Introduction*:

The overall goal of this plan is to balance a community-wide desire for preserving the existing character of the town along with and its open space resources, and address the challenge of a rapidly changing climate with the accommodation of anticipated growth and development, including residential, commercial and industrial development. Striking such a balance is attainable. However to achieve the balance a number of issues must be addressed in the plan.

Proposed Changes – Page 39

Plan Synthesis section – add new subsection – ***Energy, Emissions, and Efficiency***:

In the years since the adoption of the Plan, the issues of climate change and its mitigation have become crucial to the promoting the health, safety, and welfare of the community. Cornell University in collaboration with the Northeast Region Climate Center have released data documenting the dangers and negative, local effects of climate change¹⁰. In March of 2014, an analysis of this Comprehensive Plan commissioned by the Town Board found that the weakest element in this Plan was in an area the authors labeled “Climate and Energy.”¹¹”

In 2016, the Tompkins County Legislature adopted a goal of reducing community greenhouse gas emissions by 80% from 2008 levels by 2050 and described methods for emissions calculations. In the same year, the Town Board in stated, “Climate change poses a real and increasing threat to our local and global environments and is primarily due to the burning of fossil fuels”; “our response provides an unprecedented opportunity to save money, build a livable, energy independent and secure community..”; and “we believe the scale of greenhouse gas (GHG) emissions reductions required ... will require sustained and substantial efforts.”¹²”

¹⁰CLIMATE CHANGE ON THE COUNTY LEVEL, Cornell Small Farms Program, October 31, 2018, <https://smallfarms.cornell.edu/2018/10/31/climate-change-on-the-county-level/>

¹¹Town of Dryden – Comprehensive plan Sustainability Assessment, Findings from Matrix Analysis – March 24, 2014. Report is on file with the Dryden Town Clerk.

¹²Town Board Resolution #137 (2106) Adopt Climate Smart Communities Pledge, Town Board Meeting Minutes 2016-08-18, Pages 7-8.

Proposed Changes – Page 39

Plan Synthesis section – add new subsection – ***Energy, Emissions, and Efficiency*** (continued):

Since 2008, a rejuvenated economy and the attractiveness of the Tompkins County as a place to live—especially in the areas near Cornell and the City of Ithaca have created unprecedented pressure for residential development with its attendant demands for facilities and services.

All these factors necessitate amending this Plan to create a basis for updating our laws, regulations, and practices to address these new challenges. At a minimum areas to be addressed in these revisions should include energy use, emissions, and efficiency of structures.

Proposed Changes – Page 51

Plan Recommendations section – under ***Introduction***, add the following bullets:

- Review and take recommended actions to increase the resiliency of Town’s infrastructure to mitigate current and future impacts due to our changing climate.
- Establish a goal for GHG emission reductions that is in line with the goals and standards of the county and sister municipalities.
- Encourage sustainable development, and the reduction of fossil fuel usage in the built environment by reviewing, and where necessary, modifying land use laws, building codes, planning and code enforcement regulations, and Town policies and procedures.

Proposed Changes – Page 77

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions - Climate Change***:

Climate change poses risks to the health, safety, security, and the economy of our Town. Prioritizing strengthening the resilience of the Town's built, natural, economic, and social systems is necessary given the existential threat of accelerating climate change as described in the Plan Synthesis section of this Comprehensive Plan.

Greenhouse gases from human activities are the most significant driver of observed climate change since the mid-20th century¹⁷.

Joining with the County and sister communities to reduce greenhouse gas emissions, will provide a consistent and synergistic response to the challenges of climate change. This can be accomplished by adopting the same goals of the County as described in the County's Energy Roadmap¹⁸ which advocate for reductions of energy and fossil fuel usage along with the reduction greenhouse gas emissions. This process will require consistent monitoring, updating, and intermunicipal collaboration to maintain consistency with the most rigorous local and national standards.

Where the Town can coordinate its greenhouse gas mitigation policies, practices, or activities with the County, adjacent municipalities, and/or those located in the County, it should try to do so.

¹⁷US Department of Environmental Protection. Climate Change Indicators: Greenhouse Gases. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases><https://www.epa.gov/climate-indicators/greenhouse-gases>

¹⁸Tompkins County Energy Roadmap. March 2016. Page 2. <http://tompkinscountyny.gov/files2/planning/energyclimate/documents/Energy%20Roadmap%203-25-16.pdf>

Proposed Changes – Page 77

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Greenhouse Gas Inventories:***

It is recommended that the Town create and maintain an inventory of greenhouse gas emissions and use the most up to date, scientific methods for quantifying all greenhouse gas emissions.

Proposed Changes – Page 77-78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Efficient Buildings***:

The built environment accounts for roughly 40% of energy use in the United States, and as a result the building sector is a major contributor to carbon emissions and global climate change.

The following policies, laws, regulations, standards and practices are recommended to improve the efficiency with which the Town's residential, commercial, industrial, and institutional structures are constructed and perform. Specific actions include:

Incorporate Ithaca's Green Building Policy (GBP) and/or County's 239 building standards into our Residential and Commercial Guidelines

Incorporate GBP and/or County's 239 standards into Varna Plan.

Review and modify the site plan checklist as needed to reflect changes in the laws, policies, and regulations.

Building Codes Assistance Project. Climate Change. Energy Codes and Climate Change. <http://bcapcodes.org/topics/climate-change/>

Proposed Changes – Page 78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Efficient Public Infrastructure:***

The Town should minimize resource use and demand in local public infrastructure as a means to mitigate greenhouse gas emissions and conserve water.

Proposed Changes – Page 78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Greening the Energy Supply:***

The Town should adopt policies, laws, regulations, standards and practices which cause the local energy supply to transition away from carbon-intensive or toxic sources toward renewable sources of energy.

Proposed Changes – Page 78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Recommendations***:

The following are examples of policies, laws, regulations, standards, and practices to support the Town's efforts to reduce greenhouse gas emissions and support GHG reduction goals:

- Adopt the most up to date version of energy, fossil fuel, and GHG reduction goals
- Adopt science-based greenhouse gas emission goals that include upstream methane emissions.
- Include language which automatically adopts County standards if they become more rigorous than the one's we are using

Proposed Changes – Page 78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Recommendations*** (continued):

- Develop and promote the use of the rail trail as an alternative to commuting with cars
- Install solar-powered public electric car charging stations
- Require PB to review County and other municipalities policies and practices every two years to remain consistent or to increase our standards
- Add Town SEQRA form which requires the estimation of energy use and GHG emissions for all SEQRA Type 1 actions

Proposed Changes – Page 78

Plan Recommendations section – add new subsection ***Climate, Energy, and Emissions – Recommendations*** (continued):

- Add to required information for Town's building permit form answers to all applicable questions raised by the County's 239 Review including the source and efficiency of energy usage
- Require developers to go through the County Energy Navigator process and share the Navigator's recommendations with Planning Department.
- Partnering with other municipalities, the County, and/or NGOs to seek funding to improve the Town's "green" infrastructure and improve energy efficiency of current building stock.