

**Cooperative  
Extension**  
Tompkins County



**TOMPKINS COUNTY  
CHAMBER  
OF COMMERCE**

ISSUE I  
WINTER 2015

## Tompkins County Commercial

# ENERGY NOW

### Introduction

Ken Schlather, Cornell Cooperative Extension  
Jennifer Tavares, Tompkins County Chamber

Over the past 12 years, Cornell Cooperative Extension of Tompkins County has cut its electric use by 60% even while increasing the number of staff (and workstations) by more than 100%-- and it did so on a limited budget where cash flow, margins and profits are under assault just as in small businesses. The Chamber has invested in significant energy reduction measures over that same time frame, and has recently conducted a fresh energy audit which will help schedule even more improvements for 2016 and beyond.

To date, the partnership between the Chamber and CCE has resulted in nearly 1200 local commercial buildings taking advantage of the lighting subsidies from NYSEG. Combined they have easily saved over a million kilowatt hours/year, or over \$100,000 a year. With the tools financing and knowledge that we have available for energy efficiency right now, we know that there is over a \$1 Million in annual savings that businesses are losing right now. We hope that continuing our partnership to produce this newsletter will help us prevent those losses, and help achieve the County's short and long term energy efficiency goals.

Energy is one of those overlooked areas in small businesses that, while seemingly minor, can have a very significant long term effect on the bottom line. While energy is a relatively small percentage of any of our overall budgets, it's an expense line that is relatively easily and permanently addressed. Any adjustment today pays off well into the indefinite future.

Energy efficiency and renewable energy represent a great opportunity to generate jobs, expand existing businesses and grow new businesses. We look forward to providing you and your business the resources needed to invest in energy efficiency, match you to programs and financing options, and to support our private sector in maximizing the business development potential that the energy efficiency market provides.

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Top Left: Ken Schlather

Top Right: Jennifer Tavares

Renovus Solar Field credit Allison Usavage

## TC CEEC: Commercial Energy Efficiency Collaborative



Left: David Moreland in front of his building.  
Top Left: Karim Beers  
Top Right: Sara Culotta

by Karim Beers, Cornell Cooperative Extension of Tompkins County,  
Sara Culotta, Taitem Engineering and David Moreland, property owner

David and Kelly Moreland, owners of the building that houses Mama Goose, Mimi's Attic, Bishops Carpet One, and other offices and apartments, knew they had to do something about their heating and cooling systems. The 28,000 square foot building in Ithaca's West End is a collection of many structures (the earliest built in 1872) that have been cobbled together over the last century. Two stores relied on hanging gas heaters that were over 50 years old and not working properly. Employees shivered through winters, then sweated in summer with air conditioners poorly suited to the space.

**“The TC-CEEC workshop series gave me the opportunity to learn, think about and be attentive to my building”**  
David Moreland

To solve their problem, the Morelands signed up for an energy audit and joined the Tompkins County Commercial Energy Efficiency Collaborative (TC-CEEC), a workshop series organized by the Tompkins County Chamber of Commerce, Get Your GreenBack Tompkins, Taitem Engineering and Cooperative Extension of Tompkins County.

The Morelands weren't completely new to audits. A NYSERDA energy assessment in 2008 spurred several changes, including new lighting throughout the building, with 70% of all equipment and installation costs covered by NYSEG. Some tenants in their apartments also qualified for Tompkins Community Action's Weatherization program, which covered 75% of the cost of insulating the attic and replacing the huge windows. As a result, the building's total utility bill dropped by over 30% from \$35,000 in 2008 to \$24,000 today (helped in part by lower prices for natural gas).

David's initial apprehension about the potential cost of his 2015 energy project disappeared when he received his audit report. He was delighted to learn that the new heating and cooling system would cost much less to operate. In addition to tackling HVAC, David plans to insulate some walls and water pipes, and may also upgrade store lighting to LEDs. He would again take advantage of NYSEG's 70% cost-share program.

(continued page 3)



The estimated savings from these building improvements is \$5,000 a year in lower utility bills, with a 23% reduction in electricity use and a 36% reduction in fuel for heating. To finance the work, David is looking into the new commercial Property Assessed Clean Energy (PACE) financing offered through Tompkins County.

“The TC-CEEC workshop series gave me the opportunity to learn, think about and be attentive to my building”, he says with appreciation. His words of wisdom to other building owners? Consider using the resources he did:

“Even if you are not ready to make the changes right now, a few years down the road you are going to need to repair or replace something, and the energy audit will help guide you in a direction that will be better for the building, better for your wallet, better for your employees, and better for the environment.”

The TC-CEEC workshop series will be offered again starting in the spring of 2016. Owners or managers of non-residential buildings can get more information and sign up here. or contact Sara Culotta, Project Manager at Taitem Engineering, (607) 277-1118 ext 124, [sculotta@taitem.com](mailto:sculotta@taitem.com).

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## Energy & Economic Development Task Force

by Jennifer Tavares, Tompkins County Chamber of Commerce



In June 2015, Tompkins County Area Development (TCAD) and Tompkins County convened the Energy & Economic Development Task Force (EEDTF) at the request of the Tompkins County Legislature. The EEDTF was formed to help identify local solutions over the next 3 to 5 years that will advance greenhouse gas emissions goals while supporting the growth of jobs and our economy.

The Task Force comprises a diverse group of individuals representing the energy efficiency and alternative energy community, municipalities, economic development practitioners, and the business and development community.

The EEDTF has invested dozens of hours over the last several months examining historic data and hearing from experts regarding energy and emissions, economic development, and potential solutions which will create the biggest opportunity for emissions reductions. The group also held a public input session in October, which generated even more ideas worth considering.

This effort focuses on a broad range of topics, including commercial and residential buildings, transportation, industrial processes, renewable energy generation, and the energy distribution infrastructure. Recommendations may also include ways to address the significant carbon emissions created by residential and transportation categories and are aimed at what we can do locally over the next five years. The EEDTF hopes to make recommendations by February which will attempt to forward Tompkins County’s business development goals, while also helping meet the County’s goal of 80% reduction in carbon emissions by 2050.

# The Ithaca 2030 District Emerges

by Peter Bardaglio, Seneca Strategic Consulting LLC



Peter Bardaglio



Taitem Engineering, part of the 2030 District. Credit Taitem Engineering.



**ENERGY USE  
REDUCTION**



**TRANSPORTATION  
EMISSION  
REDUCTION**



**WATER USE  
REDUCTION**



**ECONOMIC  
DEVELOPMENT  
INCREASE**

As part of the City's economic development program and effort to reduce greenhouse gas emissions, Seneca Strategic Consulting and the Tompkins County Climate Protection Initiative (TCCPI), together with Cornell Cooperative Extension Tompkins County, HOLT Architects, Taitem Engineering, and the Building Performance Contractors Association of New York State, are collaborating to create a 2030 District that will showcase ways to significantly reduce the environmental impacts of building construction and operations, while ensuring Ithaca's economic viability and profitability for building owners, managers, and developers.

These districts seek to meet the energy, water and vehicle emissions reduction targets for existing buildings and new construction called for by Architecture 2030 in the 2030 Challenge for Planning. So far, 2030 Districts have been established in many cities all over the country, including Seattle, San Francisco, and Los Angeles, but Ithaca will be the first to create a 2030 district in New York.

The Ithaca 2030 Emerging District will build on the work of the TCCPI, an award-winning coalition of community leaders from the education, business, local government, youth, and nonprofit sectors that provides a place to network around climate and energy issues. Leveraging the climate action commitments made by Cornell University, Ithaca College, Tompkins Cortland Community College, Tompkins County, the City of Ithaca, and the Towns of Caroline, Dryden, and Ithaca, TCCPI seeks to foster a more climate resilient community and accelerate the transition to a clean energy economy.

The district will demonstrate how property owners and managers can work together to undertake energy efficiency projects in nonresidential buildings in an economically sound way. This project will create jobs in the energy efficiency sector, encouraging more investment in downtown areas, and helping to foster community revitalization. Building owners and managers will share energy, water, transportation data and case studies that will spur additional efforts to make more effective use of limited resources, improving the sustainability and resiliency of the community.

The Ithaca 2030 District is currently in the planning stage. There is a steering committee that is meeting monthly and beginning outreach to property owners and managers in the City of Ithaca. NYSERDA, through its Cleaner, Greener Communities Program, has awarded the Ithaca 2030 Districts team \$90,380 against a match of \$108,000 provided by the team members. Contract negotiations have been completed and the agreement with NYSERDA should be executed soon, allowing the project to get fully underway. It is anticipated the launch of the District will take place in the late spring of 2016.

# The Future of Solar Energy

by Cassandra Jenis, Tompkins County Chamber of Commerce



When asked about any surprise successes and unexpected challenges that their company has had over the past year, Renovus President and CEO Joe Sliker and General Manager Jon McNamara have to laugh.

“This building is a good example,” he says, gesturing to the beautifully decorated space with its slick white walls and hard wood tables.

The rehabilitated space was once a chicken farm, but there’s no trace left of the building’s humble beginnings. In its place is a modern, minimalistic office with slick lines and a comfortable interior. Notably absent, however, for a company that hopes to redefine how people use energy, are any visible solar panels.

The idea for the space was to have a 100% solar-powered facility, complete with LED lights and air sourced heating and cooling. At the last moment, however, it turned out that the roof was incapable of handling the weight of the panels needed to power the building. Not to be deterred from their goals, the company needed to think outside of the box to fulfill their needs, turning an architectural goof into a new opportunity.



Renovus Solar photos credit Allison Usavage

“We’re going to be a prime example of remote located solar, because Renovus headquarters can’t have solar on the roof,” Joe laughs.

He’s referring to their newest project: a remote solar farm that enables everyone to use solar energy. The idea is to install panels onto land that is ideal for solar, bypassing the need for home ownership, a home site with unobstructed sunshine, or a strong enough roof. The energy from the solar panels goes directly into the energy grid and anyone can use it. After that, it’s a question of billing.



This plan, which will install solar panels on viable land throughout New York State, will revolutionize how people use energy. Solar power, historically only an option for about 20% of the population, will soon become open to everyone, regardless of where they live. In fact, he is so optimistic about the future of solar in New York State that Jon says “solar can now be your first good investment instead of your last.”

Joe and Jon are excited about the new possibilities and the idea that solar will soon become accessible to everyone, and say that the company’s biggest success story will be the ease of going solar with the implementation of these solar farms. Their first solar farm is projected to open sometime in early 2016.

For more information, visit <http://renovussolar.com/>. To sign up for a site on the solar farm or learn more information you can contact any of sales team members at (607) 277-1777. If you have additional questions regarding land accusation you can contact Jon McNamara at [jmcnamara@renovussolar.com](mailto:jmcnamara@renovussolar.com).

# Energize NY & PACE Financing

by Joe Mareane, Tompkins County Administrator



Six years ago, New York State passed legislation allowing “Property Assessed Clean Energy” (PACE) financing to be used to support the installation of energy efficiency improvements and renewable energy systems in local municipalities. PACE promised to open the door to affordable financing that is unique in having loan repayments made through the owner’s annual property tax bill.

Today, Tompkins County and the City of Ithaca are among the first in New York State to put the promise of PACE into practice. Through Energize NY Finance, low-cost, long-term loans for clean energy projects are now available for existing commercially-owned properties throughout Tompkins County.

Unlike other types of financing, the loan does not come due when the property is sold. Instead, the annual repayment stays on the tax bill until the loan is paid off, much like a conventional sidewalk assessment. This unique payment feature assures that project costs can be offset by energy savings each year.

The Energize NY Finance program is not only about the money. It also provides technical assistance to owners as they get started with a clean energy project, and advice along the way if they get stuck.

The program is available for most existing buildings owned by a commercial or not-for-profit entity, including multifamily buildings, agricultural facilities, shops and offices, industrial facilities, and institutional buildings. It can finance up to 100% of an array of energy efficiency and renewable energy projects—from insulation to solar panels and geothermal systems.

There are, of course, some common-sense underwriting rules—such as requiring the annual savings from the improvements to be greater than the annual finance payments and limiting loans to 10% of the property’s value—that protect the property owner, lender, and taxpayer.

Energize NY Finance allows us to take a major step forward in achieving environmental and economic development goals. Through Energize NY, property owners can reduce their cost of doing business and, in the process, make meaningful reductions in greenhouse gas emissions. That is a powerful one-two punch.

## Typical Energy Efficiency and Renewable Upgrades Financed by PACE

### Energy Efficiency:

- Boilers and controls
- Chillers and controls
- Insulation and air sealing
- Lighting
- Oil to Gas conversions
- Pumps
- Windows

### Renewable Energy:

- Solar Photovoltaic Systems
- Solar Thermal Systems
- Geothermal
- Wind Turbines

### Demand Management:

- Combined Heat and Power
- Battery Storage
- Thermal Storage
- Fuel Cells

For further information regarding the Energize NY Finance program, contact Jana Petrikova, [info@energizeny.org](mailto:info@energizeny.org) (914) 302-7300 or visit [commercial.energizeny.org](http://commercial.energizeny.org) to find out how much financing a property qualifies for.

# Commercial Green Buildings Open House

by Guillermo Metz, Cornell Cooperative Extension



The Caroline Town Offices building, featured on previous green building tours



On Saturday, February 27, 2016, tour commercial buildings in the Ithaca area that have implemented green building methods, materials, and technologies. Building owners have saved thousands of dollars, while improving indoor air quality and cutting carbon emissions. This is a unique opportunity for building owners, facility managers, architects, engineers, and others in the business community to see these features up-close and talk with the people who made the choice to go green. Learn first-hand about any issues they have encountered, their ROIs, and other questions that have kept you from upgrading your building! Coordinated by Cornell Cooperative Extension of Tompkins County.

We are working on providing CEU credit. Fee: \$25. Visit <http://ccetompkins.org/gboh> or contact Guillermo Metz at [gm52@cornell.edu](mailto:gm52@cornell.edu) or 607-272-2292 for more information and to preregister.

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## Upgrade Your Lighting & Save 70%

by Ken Schlather, Cornell Cooperative Extension of Tompkins County



In today's economy, business owners know how important it is to reduce expenses. One of the easiest ways to significantly reduce electric bills is to install energy efficient lighting. Small businesses can take advantage of a NYSEG program that will cover up to 70% of the cost of buying and installing new energy efficient lighting. Eligible businesses, (with an average monthly use of less than 110 kilowatts), receive a free energy assessment, lighting installation, and other energy upgrades, completed by qualified, licensed and bonded subcontractors.

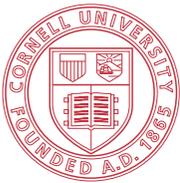
Program participants, like Center Ithaca, have been thrilled to reduce their carbon footprint and lower the expense of operation. "Although we've made numerous energy efficiency modifications throughout our buildings, modifying our commercial lighting was one of the easier ways we found to significantly reduce our electricity consumption," says Bill Petrillose, the manager of Center Ithaca. "We took advantage of multiple incentive programs, some of which allowed us to retrofit our commercial lighting and do other energy efficiency upgrades with zero cost up front using NYSEG and NYSERDA subsidies and loans. In our case we were actually saving more than our cost to repay the loan balance relatively quickly." (continued page 8)

Center Ithaca participated in a program called Lighting Plus™, funded by the Park Foundation, and designed by CCE-Tompkins, the Tompkins County Chamber of Commerce and TAITEM Engineering to help businesses save money on lighting plus a wide range of other energy costs. Other local organizations participated, including the Tompkins County Solid Waste Management Division, NYSEG, and EnerPath. Lighting Plus™ helped nearly 450 businesses implement lighting and other energy efficiency upgrades, with a total projected energy savings of over a million kilowatt-hours/year.

Although the Lighting Plus™ program has ended, the Chamber of Commerce, TAITEM Engineering, and CCE-Tompkins continued to work with GetYourGreenBack Tompkins to develop an improved program to help small businesses save energy. The new program, called TC-CEEC, includes the lighting upgrade program offered by NYSEG.

Businesses can visit NYSEG's Small Business Energy Efficiency Program for more information and eligibility guidelines at <http://www.nyseg.com/UsageAndSafety/usingenergywisely/eeps/smallbusiness.html> or enroll by calling EnerPath at 1-877-359-9814.

# FURTHER RESOURCES



## Cooperative Extension Tompkins County

The Cooperative Extension of Tompkins County handles a few of the programs mentioned in this article, including the Tompkins County Commercial Energy Efficiency Collaborative and the Commercial Green Buildings Open House.

<http://ccetompkins.org>  
615 Willow Ave.  
(607) 272-2292  
[tompkins@cornell.edu](mailto:tompkins@cornell.edu)



## TOMPKINS COUNTY CHAMBER OF COMMERCE

The mission of The Tompkins County Chamber of Commerce is to advocate for the free enterprise system and sound economic development, foster success for its for-profit and not-for-profit members, and promote a high quality of life for all Tompkins County residents.

<http://www.tompkinschamber.org/>  
904 East Shore Dr.  
(607) 273-7080  
[info@tompkinschamber.org](mailto:info@tompkinschamber.org)



Get Your Greenback Tompkins is highlighting a new resource on their website to help you cut down on energy use, bills, and create a better place to work, learn, and live. Click below for 11 of the top actions to consider in the four areas of transportation, building energy, waste reduction and local food.

<http://www.getyourgreenbacktompkins.org/organizations/>

[info@getyourgreenbacktompkins.org](mailto:info@getyourgreenbacktompkins.org)



Taitem Engineering undertakes consulting services in the area of mechanical, electrical, plumbing and structural engineering, commissioning, LEED, energy modeling, sustainability consulting, energy studies, energy research, and specialty contracting services including solar PV installation and Aeroseal duct sealing.

<http://www.taitem.com/>

110 South Albany Street  
(607) 277-1118

[info@taitem.com](mailto:info@taitem.com)



Energize NY Finance leverages PACE (Property Assessed Clean Energy) financing to help commercial and non-profit property owners undertake deep energy improvements. Projects include energy efficiency and renewable energy for commercial, multi-family, light industrial and nonprofit owned buildings.

<http://www.energizeny.org/>

French Hill Elementary School  
2051 Baldwin Road - Suite 107  
Yorktown Heights, NY, 10598  
(914) 302-7300

[info@energizeny.org](mailto:info@energizeny.org)



Since 2003, Renovus has designed and installed thousands of renewable energy projects throughout New York. They build exceptional solar systems for homes and businesses that save money and provide reliable performance for decades.

<http://renovussolar.com/>

1520 Trumansburg Rd  
(607) 277-1777



NYSEG and Enerpath partner to run the Small Business Energy Efficiency Program. Eligible small businesses will receive free energy assessments, and up to 70% of the cost of recommended equipment upgrades will be covered.

<http://www.nyseg.com/UsageAndSafety/usin-genergywisely/eeps/smallbusiness.html>  
(877) 359-9814



The Tompkins County Solid Waste Management Division (TCSWMD) provides reliable recycling and solid waste services to Tompkins County residents, educational institutions, businesses and other organizations.

<http://www.recycletompkins.org/>  
122 Commercial Ave.  
(607) 273-6632  
[info@taitem.com](mailto:info@taitem.com)



EnerPath makes it easy for businesses and communities to become energy efficient by offering a scalable, transparent, real-time delivery platform. Their proven products and services have been reducing energy costs in small businesses and homes for over a decade.

<http://www.enerpath.com/>  
(909) 335-1699  
[information@enerpath.com](mailto:information@enerpath.com)