

# **Implementing the Tompkins County 2020 Energy Strategy 2011 Accomplishments**

*Report to the Legislature, April 17, 2012*

In September, 2010, the County Legislature endorsed a strategy outlining measures to achieve the first interim step along the path of achieving an 80% reduction in greenhouse gas emissions by 2050: a 20% reduction in emissions by 2020. Quantified in the Strategy are both new initiatives for the community to take, as well as a range of key programs already underway that will help the community achieve its greenhouse gas emissions goals. 2011 was the kick-off year for implementing the ten new local measures identified in the Strategy.

## **New Local Measure #1 – Property Assessed Clean Energy Program**

TCPD staff continued to track the status of Property Assessed Clean Energy (PACE) programs nationally and worked with County legislative leaders to secure co-sponsorship from our Congressional representatives for the PACE Assessment Protection Act of 2011 to provide a national legislative solution to the problems holding up PACE.

Outside of the PACE tool, several initiatives were launched in 2011 to address the need to help consumers navigate and fund energy efficiency retrofits in Tompkins County.

**Financing for Residential Retrofits:** County Planning staff worked with local partners, including local banks, to encourage private institutions' efforts to create loan programs to assist homeowners in financing energy upgrades. Local banks and housing agencies created these opportunities and widely publicized them to the community in 2011.

**Motivating Residents to Reduce Energy Use and Save Money:** In partnership with scores of local partners, Tompkins County planning staff actively worked on creating motivating strategies and messaging around ways to save energy and money in the areas of Food, Building Heating and Lighting, Transportation, and Waste. Hundreds of people were involved in the initial planning for the Get Your GreenBack Tompkins campaign and thousands were reached with the campaign message in 2011. Another aspect of helping people to reduce energy use was Cornell Cooperative Extension of Tompkins County's (CCETC) launch of the UpgradeUpstate.org website as a web portal to disseminate accessible information to homeowners on how to make energy upgrades. TCPD staff worked closely with CCETC staff in developing the site.

**Energy-Related Programs Serving Low-Income People of Tompkins County:** Applying the recommendations of a report produced by a TCPD intern in 2010 regarding improving energy-related programs serving low-income people in Tompkins County, TCPD staff crafted a spring 2011 U.S. Department of Housing and Urban Development application to address those needs. The \$400,000 Healthy Homes grant was awarded to the County in December 2011. Another recommendation from the report was also implemented, primarily by CCETC staff with input from TCPD staff, to train the 2-1-1 hotline volunteers to provide information on energy retrofits and the Get Your GreenBack Tompkins campaign resources through its hotline services.

**Southern Tier Renewable Energy and Efficiency Program:** This \$1 million revolving loan fund was approved by Governor Cuomo in 2011 to assist institutions and large businesses in securing the financing to undertake the up front project development costs for large-scale energy efficiency retrofit projects in the Southern Tier region, including Tompkins County. This project involves aggregating large-scale energy efficiency retrofit projects, such as building improvements and the utilization of solar, geothermal, wind and biomass technologies (including storage), and the development of a financing structure based on an innovative financing model that is being implemented in Pennsylvania.

### **New Local Measure #2 – Waste Diversion Program**

While the community has achieved a waste diversion rate of 60%, the goal of the Tompkins County Solid Waste Management Division is to achieve a 75% diversion rate by the end of 2015. TCSWM began developing a new 10 year Solid Waste Management Plan in 2011. In addition, single-stream recycling was initiated Countywide, including County facilities, by the County Solid Waste Division.

Tompkins County signed a 10 year contract with ReCommunity of Charlotte, NC to upgrade and operate the Recycling and Solid Waste Center. This public-private partnership contributed to achieving the waste diversion goal by introducing 5 new functions in 2011:

1. Single-stream recycling
2. High fiber processing for commercial recyclables
3. Waste diversion from certain recycling-rich commercial loads
4. Expanded drop-off area including the "Recycling Market" for residents and small commercial customers
5. Transfer of remaining garbage to a nearby landfill

To support these new services, TCSWM developed an outreach campaign to be launched in the spring of 2012 to increase recycling of new materials and increase residential participation. The County also entered into a partnership with the national non-profit, Catalog Choice to provide the community with the opportunity to opt-out of unwanted mail to reduce waste and even recycling generation.

TCSWM received and implemented a grant from the USDA to assist low income residents of several mobile home parks and apartment complexes to reduce waste through recycling, composting and reuse. A video and manual were produced documenting the fantastic accomplishments of 300 residents. This information will assist others and provide the impetus for expanding this opportunity to other locations in Tompkins County.

### **New Local Measure #3 – Energy Business Partnership Program**

Staff from Tompkins County Solid Waste Management, Planning and Cooperative Extension met several times in 2011 to further this program and limited progress was made.

### **New Local Measure #4 – Transportation Demand Management**

**Bicycle Boulevards:** The City of Ithaca Board of Public Works directed City staff to develop a Bicycle Boulevards/Neighborhood Greenways Plan for their consideration. The plan is currently under development, including outreach to the public and a number of community organizations. A draft plan is expected to be ready for the Board of Public Works review in late spring 2012.

**Multi-use Trails:** Preliminary planning and design work is ongoing for two important multi-use trails, the Black Diamond Trail and the Cayuga Waterfront Trail. Local municipalities and Tompkins County are working cooperatively with State Parks to implement drainage improvements on the Black Diamond Trail. Funding has also been secured for one of two bridges that need to be rebuilt. The Cayuga Waterfront Trail Phase 2 is likely to go to construction in 2013.

**Way2Go:** Way2Go continues to actively promote and educate businesses, institutions and individuals on options for transportation in Tompkins County. Way2Go activities are ongoing in nature.

**Consumer Oriented Transportation:** A number of local transportation providers and education agencies including TCAT, Gadabout, Ithaca Carshare, Way2Go, DSS Mobility Section and ITCTC are working jointly with ITNAmerica to explore the potential of implementing the ITNEverywhere concept in Tompkins County. ITNEverywhere is a transportation program that uses existing information technology and shared business practices to capture private transportation capacity (i.e., empty seats in drive alone vehicles), with

the goal of creating consumer oriented community transportation for all. The ongoing feasibility study will indicate if ITNEverywhere is a good fit for the Tompkins County market.

#### **New Local Measure #5 – Alternative Fuel Vehicles**

Local planning staffs reviewed two grants in 2011 addressing electric vehicle charging station dissemination and discussed them with partners. Several local businesses, institutions, and local governments applied for grants in early 2012 to site electric vehicle charging stations in and around Ithaca.

#### **New Local Measure #6 – County Government Energy Policies**

Highway Biodiesel: County Highway completed successful transition to biodiesel.

Paperless Offices: Multiple County departments are participating in ongoing initiatives to "stop the paper" through smart office strategies, including using multifunctional devices for printing/scanning/copying, major scanning project and new digital submissions processes underway at County Clerks office, Personnel online jobs system up and electronic forms coming soon.

Airport Green Master Plan: The Ithaca-Tompkins County Airport green master plan was completed and awarded the Airports Going Green 2011 Award. This plan incorporates sustainability practices and goals into its operations and capital planning, including ghg reductions through energy reduction and efficiency as well as green building.

Data Center Management: The Information Technology Division worked to collapse data centers, down to two now, and this has greatly reduced energy use.

#### **New Local Measure #7 – County Facility Energy Improvements**

A lighting retrofit at Recycling and Solid Waste Center was completed in 2011. Temperature controls at Public Works vehicle garage will be completed in 2012. Solar thermal systems were installed at the Health Department, Mental Health Department and Recycling and Solid Waste Center prior to 2011, in addition to solar PV at the Library. Late in 2011, Tompkins County entered into a 15 year lease with Buffalo based Solar Liberty for the installation and maintenance of seven solar PV systems on top of county owned buildings. The seven systems consist of 6-25 kW arrays and one 20 kW array. Over the 15 year life of the lease, the county will pay roughly the same amount to lease 7 systems as it would pay to purchase one system.

Performance Contract: County facilities experienced continued savings in year five of the 15-year performance contract with Johnson Controls.

LEED Silver Certified Department of Health: New DOH facility is verifying final systems compliance prior to commencing commissioning in order to receive LEED Silver certification.

#### **New Local Measure #8 – Biomass for Rural Heating**

CCETC implemented a pellet stove pilot project for rural homeowners in 2011.

#### **New Local Measure #9 – District Heating Feasibility Study**

The groundwork was laid in 2011 to fund feasibility studies for combined heat and power and district energy in four key areas of the County in 2012. The first area is the vicinity of Cayuga Medical Center on West Hill, the second is the Emerson site on South Hill, the third in is the Town of Lansing, and the fourth is the City of Ithaca's Commons.

1. West Hill: Local planning staffs, CMC officials and adjacent landowners met several times to discuss the potential for district energy loops off of the hospital's primary loop and a potential biomass fueled combined heat and power plant on CMC property. TCPD and CMC provided funds to hire a consultant to conduct the initial feasibility studies for the project.

2. South Hill: District energy on South Hill was the focus of a case statement prepared by a working group of the Tompkins County Climate Protection Initiative, headed by TCPD staff. Use of the case statement by TCCPI members resulted in submission of an EPA brownfields grant application, with award announcements anticipated in late spring 2012.
3. Lansing: The Biomass Energy Resource Center was hired by partners Abbott Lund-Hansen, a consulting engineering firm, SUNY Research Foundation, New York Farm Viability Institute, SUNY Cobleskill, and the New York Biomass Energy Alliance to evaluate the opportunity for Abbot Lund-Hansen to develop biomass district energy system in the Town of Lansing that could be sold to the Town for long-term ownership and operations. The study, which was finalized in early 2012, examined the feasibility of a central heating system fueling a distributed energy network to include the four town buildings (the town highway barns, town hall, and community center) as well as any residential or business enterprise to voluntarily hook up to the loop for the shared energy advantages. The energy plant would utilize renewable resources such as woodchips or potentially wood or grass pellets, as its fuel.
4. Commons: A group of local business people called Energize Ithaca was formed in 2011 with the goal of providing a permanent community owned district energy service for the Commons area. They hosted several meetings with landowners in the area to discuss the concept and worked to identify funding opportunities for the initial feasibility study.

#### **New Local Measure #10 – Energy Road Map**

Four graduate-level Cornell students were recruited and retained to explore the potential and existing energy supplies in Tompkins County. TCPD staff worked with students and professors from engineering, business administration, and city and regional planning to hone the scope of work, direct the studies, and review the work products. Results of these studies will be shared with the public in 2012.

Southern Tier Regional Sustainability Plan: A regional framework for the Energy Road Map will be analyzed through this NYSERDA-funded program. TCPD was awarded a \$1million planning grant to develop the Southern Tier Regional Sustainability Plan, an 8-County regional sustainability plan that will include a regionwide greenhouse gas emissions inventory, 20-year implementation plan, 5-year action strategy, and present the top 10 regional projects to be submitted for NYSERDA's Phase II Implementation funding on 2013.