



Climate Smart Communities – Capital Region Summary of Energy Efficiency Training for Clifton Park and Saratoga Springs April 2013

TO: Phillip Barrett, Town Supervisor, Town of Clifton Park
Barb McHugh, Director, Community Development, Town of Clifton Park
Bradley Birge, Administrator, Planning and Economic Development, City of Saratoga Springs
Timothy Wales, City Engineer, City of Saratoga Springs

RE: Energy Efficiency Training for Facilities and O&M Staff

FROM: Kari Hewitt, VHB
Todd Fabozzi, CDRPC

CLIMATE SMART COMMUNITIES OVERVIEW

The Climate Smart Communities (CSC) program is a New York State initiative to help local communities reduce greenhouse gas (GHG) emissions, prepare for the effects of climate change and save taxpayers money. The CSC program is designed to address 10 focus areas, or “pledge elements,” outlined in the CSC Pledge. To support communities that have taken the pledge, the New York State Energy Research and Development Authority (NYSERDA) is offering technical assistance through the CSC Regional Coordinator Pilot Program, which, in the Capital Region, has been awarded to the Capital District Regional Planning Commission (CDRPC). The Town of Clifton Park adopted the CSC Pledge in 2009 and the City of Saratoga Springs adopted the Pledge in 2011. Each community held an in-person technical assistance consultation with CDRPC and its consultant, VHB, during Fall of 2012.

STRATEGY OVERVIEW

The two communities shared a common interest in having identified education of facilities staff about how to efficiently maintain existing equipment and buildings and how to identify which future equipment options are the most energy efficient as a key priority for their continued progress as a Climate Smart Community. This capacity building ensures that, long-term, the Town will continue to reap the benefits from the energy efficiency improvements they invest in. For this reason, it was determined that a training should be organized for facilities and operations and maintenance staff on how to best maintain their facilities and equipment in order to reduce maintenance costs and to identify opportunities for improved energy efficiency. Other Climate Smart Communities were invited to attend the training, but it was focused on providing recommendations most relevant to Clifton Park and Saratoga Springs. In preparation for the training, Novus Engineering arranged in-person walk-throughs of a sample of buildings with facilities staff from each of the local governments. This information and photographs were used to provide detailed examples during the training.

TRAINING SUMMARY

The training was held on April 2, 2013 in the Recreation Center in Saratoga Springs, NY. The following representatives from Clifton Park, Saratoga Springs, and the City of Schenectady were all in attendance.

Attendees

Dan Clemens, Town of Clifton Park, Building Maintenance
Mike Handerhan, Town of Clifton Park, Building and Grounds Supervisor
Debbie LaBreche, City of Saratoga Springs, Assistant City Engineer



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Stan Borden, City of Saratoga Springs, Senior Engineer
Barbara Anthony, City of Saratoga Springs, Administrative Assistant-Engineering
Matt Zeno, City of Saratoga Springs, Engineering Technician
Carl Olsen, City of Schenectady, Commissioner of DGS
Jeremy Howard, Sr., City of Schenectady, Building Supervisor and Mayoral Representative

Presenters

Mark Bagdon, PE, Novus Engineering
Cara Martin, Novus Engineering

Organizers

Todd Fabozzi, CDRPC
Kari Hewitt, VHB

Training Details

The following topics were covered in the three and a half hour training.

- Relative costs of fuels and how energy is billed
- Energy information management
- Common Mechanical Equipment and Associated Efficiencies / Energy Savings Opportunities
- Controls
- Weatherization
- Lighting and lighting controls
- Preventive maintenance
- Useful Tools

TAKE-AWAY TIPS AND RECOMMENDATIONS

In addition to providing a copy of the complete presentation, there were a few key recommendations worth highlighting for Clifton Park and Saratoga Springs.

- Novus Engineering did not see any condensing boilers in either local government's buildings. It was strongly recommended that as boilers need replacement, which many will soon, condensing boilers be specified as the replacements.
- If unit heaters are being used near ceilings, install ceiling fans to circulate heat downward.
- Review temperature set points throughout buildings, especially in entry lobbies.
- In garages, replace manual thermostats with digital thermostats that have override capabilities, but then set back to original set point.
- Cooling and heating set points should not be too close. Energy code requires a five degree differential at a minimum. If it's too close, the building will have inefficiencies and thermal comfort issues during shoulder seasons.
- Install the same model of programmable thermostat throughout buildings to minimize human error in programming/controlling them.
- If utilizing Direct Digital Control systems, include in specifications a training requirement so that staff knows how to monitor and adjust the DDC systems.



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ADDITIONAL RESOURCES

National Grid Energy Efficiency Services and Rebates:
<https://www1.nationalgridus.com/EnergyEfficiencyPrograms>

New York State Electric & Gas (NYSEG) Municipal Services and Incentives:
<http://www.nyseg.com/YourBusiness/streetlighting/default.html>

NYSERDA Energy Efficiency and Renewables Programs for Commercial and Industrial:
<http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial.aspx>

Illuminating Engineering Society (IES) for lighting level and efficiency resources:
<http://www.iesna.org/>

Information on the Lighting Facts Label:
<http://www.lightingfacts.com/ftclabel>

Computerized Maintenance Monitoring System (CMMS) Information:
Background information:
<http://www.wbdg.org/om/cmms.php>
http://www1.eere.energy.gov/femp/program/om_cmms.html

Example system for local governments – FacilityDude:
<http://facilitydude.com/industries/government/>