

# Advancing to Energy Efficient Municipalities

By Diana McCarthy-Bercury, Eversource and Marianne Graham, ICF International



### **Energize Connecticut**

- Energize Connecticut is a statewide branding initiative to help consumers save money and use clean, affordable energy.
- A partnership of the Energy Efficiency Fund, the Connecticut Green Bank, Department of Energy and Environmental Protection ("DEEP") and local electric and gas utilities.

# WHY ENERGY EFFICIENCY?

#### Benefits for the Environment

Reduces air pollution, greenhouse gas emissions, and water use

#### Benefits for our Customers

Lower utility bills now and in the future

Improves comfort, health and safety

Gives more control and understanding

#### Benefits for Eversource

Delivers on our promise to our customer



### **ENERGY EFFICIENCY FOR EVERYONE!**

#### Who We Serve

Residents, Businesses, Municipalities, Communities, traditional schools and technical career high schools

#### What We Offer

Financial Incentives, Rebates, Grants, Financing

Technical Assistance and Installation Services

**Education and Community Outreach** 

Workforce Development



# **Engaging Our Schools**





Energize
Our
Schools

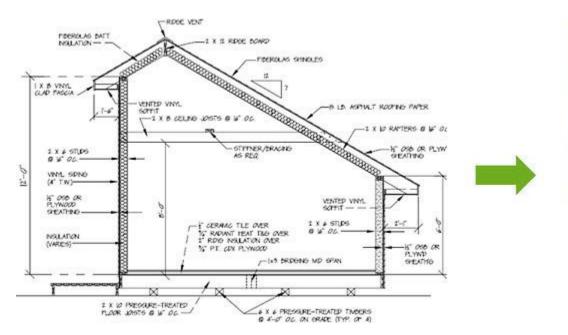


# **Engaging The Workforce**











Ella T. Grasso E-House at Grasso Tech in Groton



# **Engaging Our Communities**





**Engage** 

**Educate** 

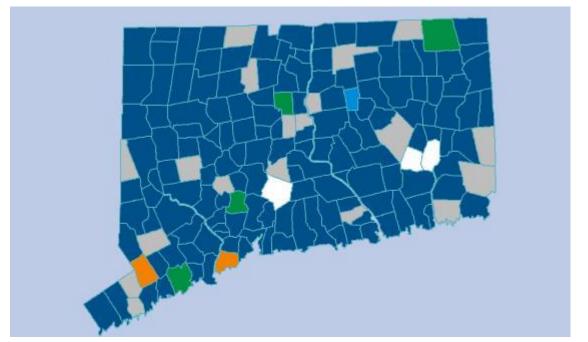
**Empower** 







# **Engage Municipal Leaders**









# BECOMING A CLEAN ENERGY COMMUNITY IS AS EASY AS 1, 2, 3!

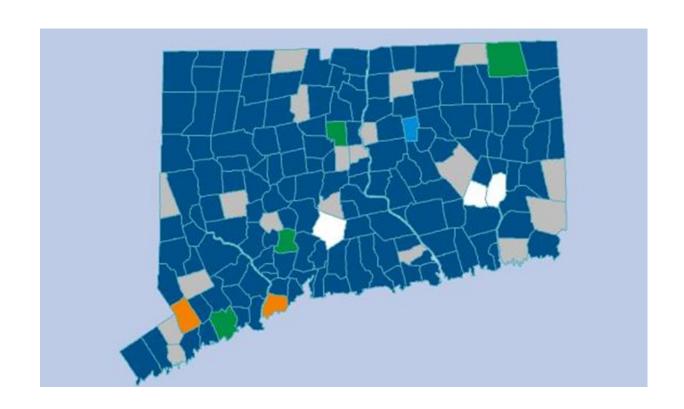
- Commit to "Clean Energy Communities Municipal Pledge"
- Pledge to make a 20%
   Energy Reduction in
   Municipal and Board of
   Education buildings
- Create a Municipal Action
   Plan a strategy to achieve energy savings and reduction goals
- Recognition of Achievements

#### CLEAN ENERGY COMMUNITIES MUNICIPAL PLEDGE

The Clean Energy Communities program is an initiative funded by both the Clean Energy Finance and Investment Authority (CEFIA-formerly known as the Connecticut Clean Energy Fund) and the Connecticut Energy Efficiency Fund. CEFIA and the Energy Efficiency Fund develop programs which collectively seek to have Connecticut cities and towns both reduce energy use and increase support for clean, renewable energy for municipal facilities. The Energy Efficiency Fund programs are administered by The Connecticut Light and Power Company, The United Illuminating Company, Yarikee Gas Services Company, The Southern Connecticut Gas Companies ("the Companies")

By applying currently available energy efficiency and clean, renewable energy technologies the Town of Trumbull can save money, create a healthier environment and strengthen local economies, and accordingly, the Town of Trumbull makes the following Clean Energy Communities Municipial Pledge:

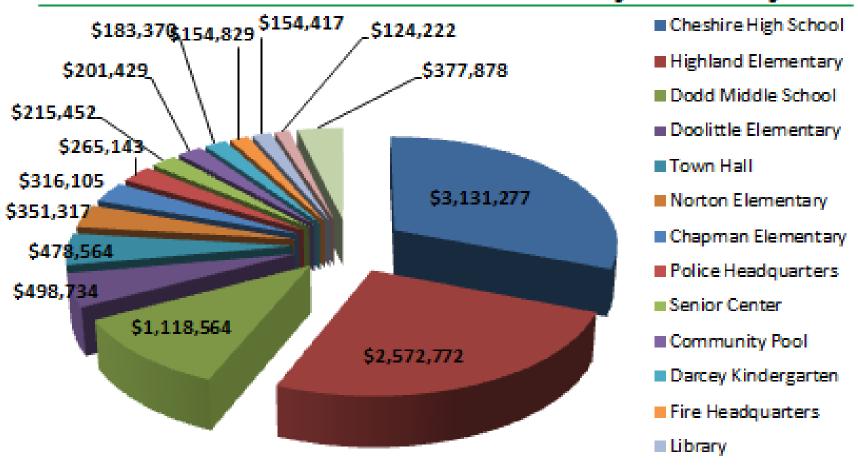
- The Town of Trumbull pledges to reduce its municipal building energy consumption by 20% by 2018. Building energy consumption shall be determined by benchmarking municipal building energy consumption to a baseline fiscal year. The Town of Trumbull can elect from the following fiscal years to determine its energy baseline year: 2008-2009, 2009-2010, 2010-2011, or 2011-2012.
- a. The Town of Trumbull will seek to reduce its municipal building energy consumption for municipal facilities by at least 20% by 2018. The schedule follows:
  - I. Fiscal Year 2012-2013: 5% Reduction
  - ii. Fiscal Year 2013-2014: 8% Reduction
  - iii. Fiscal Year 2014-2015: 11% Reduction
  - iv. Fiscal Year 2015-2016: 14% Reduction
  - v. Fiscal Year 2016-2017: 17% Reduction
  - vi. Fiscal Year 2017-2018: 20% Reduction
- b. The Town of Trumbull will work with the Companies, contractors or other entities to benchmark all of its municipal buildings (including board of education buildings) to determine all municipal building energy usage.
- c. Beginning July 1, 2015, the Town of Trumbull agrees to provide documentation of its municipal building energy consumption on an annual basis by the end of the first quarter of the following fiscal year.
- d. The Town Trumbull pledges to create its own Municipal Action Plan (MAP) to determine its path in reducing its energy consumption. The Town of Trumbull may satisfy this requirement by submitting a pre-existing municipal energy plan, sustainability plan, dimate change action plan or similar document.
- e. There is no penalty if the Town Trumbull fails to meet the reduction amounts set forth in the schedule above. However if these reduction targets are not met starting July 1, 2015, the Town of Trumbull will not be eligible to receive Bright Ideas Grants from the Connecticut Energy Efficiency Fund and Companies under the Clean Energy Communities program.
- 2. The Town of Trumbull pledges to purchase 20% of its municipal building electricity from clean, renewable
  - The Town of Trumbull will seek to make a voluntary purchase of at least 20% of the electricity for municipal facilities from clean, renewable energy sources by annual CEC program requirements.
     The scholaride follows:
    - i. Fiscal Year 2012-2013: 15% Purchase
    - ii. Fiscal Year 2013-2014: 16% Purchase
    - iii. Fiscal Year 2014-2015; 17% Purchase
    - iv. Fiscal Year 2015-2016: 18% Purchase





## Putting it all together

# Conservation Measures by Facility



## Clean Energy Communities



# Municipal Technical Assistance Project

### **Eversource & ICF International**

To date the project is providing technical assistance to 34 Connecticut municipalities that have committed to achieving a 20% energy reduction in municipal and board of education buildings by 2018 as part of the Clean Energy Communities program.



# Key Elements of The Municipal Technical Assistance Project

- Develop effective "green teams"
- Use the U.S. EPA tool Portfolio Manager® for benchmarking
- Provide guidance on community wide energy initiatives
- Deliver an ASHRAE Level I Energy Assessment:
  - 1. Identify energy conservation measures
  - 2. Encourage the town team to develop strategies
  - 3. Enhance collaboration with Eversource energy engineers
  - Identify the appropriate energy efficiency program and incentives
- Create a strategic Municipal Action Plan

# Key Elements of Municipal Technical Assistance Project



### Municipal Action Plans include:

- Action steps and timelines for providing updates
- Portfolio Manager reports and analysis of baseline and current energy data
- Tables that summarize progress toward energy reduction goals, document completed projects, and propose potential projects by facility
- Policies, Procedures, and a signed Clean Energy Communities commitment
- "Green Team" vision statements and meeting minutes
- ASHRAE Level I Energy Assessment report
- Renewable energy goals and progress

#### What is the Process?



#### **Initial Outreach**

• ICF works with municipal "green teams" to prioritize the technical assistance for the community

# Data Collection and Analysis

- Eversource Interns gather facility information and energy data; enter data in Portfolio Manager
- ICF provides training for the Interns, guidance regarding Portfolio Manager, and conducts analysis on the Portfolio Manager reports for the towns

# Training and Continuing Assistance

- Eversource hosts two full-day technical workshops that are conducted by ICF
- ICF and Interns host bi-weekly calls with each green team to update progress and provide technical assistance

#### Documentation

- ICF provides one ASHRAE energy assessment for each municipality
- ICF collaborates with Eversource engineers to drive participation in energy efficiency programs
- ICF works with municipalities to develop a municipal action plan

# Customized to Meet Community Priorities

The Municipal Technical Assistance Project is customized to meet the individual needs of each community. Some examples of customized TA are:

- Two towns share a regional school system
  - Eversource approved the regional school as a separate TA project
- Several communities had existing Portfolio Manager accounts
  - ICF provided verification of the data as part of TA
- Several communities had outdated Energy Strategies or Plans
  - The team incorporated the ICF template to create a living document that can be easily updated
- One city requested three additional audits so it could report having completed assessments of 100% of its building stock
  - Eversource approved the budget for ICF to conduct additional audits

### Steps to Success



The Clean Energy Communities Municipal TA Project uses a collaborative staged approach to help local governments establish energy reduction and management goals and to drive participation in efficiency programs.

#### **Municipalities:**

- 1. Form an Energy Team and Make a Commitment
- 2. Actively engage in the Municipal Technical Assistance Project by participating in recurring calls

#### **EVERSOURCE:**

- 1. Provides resources for extensive technical assistance
- 2. Provides staffing to gather internal energy data and to collaborate with the Eversource energy efficiency programs

#### **ICF** International:

- 1. Provides technical expertise to Eversource and the towns
- Manages the delivery of the project collaboratively with the ICF and the Eversource teams

# Municipal Partnerships Energy Efficiency as a Resource











