

VECAN Conference 2011

Local Energy Projects in Charlotte, VT

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Charlotte Energy Committee

Energy in Charlotte

Acknowledge history

Conservation Committee, Sustainable Living Network, Energy Task Force, 6000 CFC bulbs, but lost steam during blitz of activity in 2006/07

Build on history and set context

1. Past - History of task force & its achievements
2. Present - Today's issues discussed in open meeting with refreshments in April 2009
Writing articles for local papers
3. Future – Proposed VT legislation, projections, prioritizing, recognizing the capacity of volunteers

2010 funding opportunities determine project priorities

- ANR application for town hall improvements
TIPTOP (Town Implementation Program for Total Optimization Performance)
- Efficiency VT Community Energy Mobilization
- Chittenden County application for NEW
(Neighborhood Energy & Weatherization)
- DOE/EECBG application for town hall energy retrofit
and LED street light upgrades
- NE Grassroots Fund for local food project
- PACE

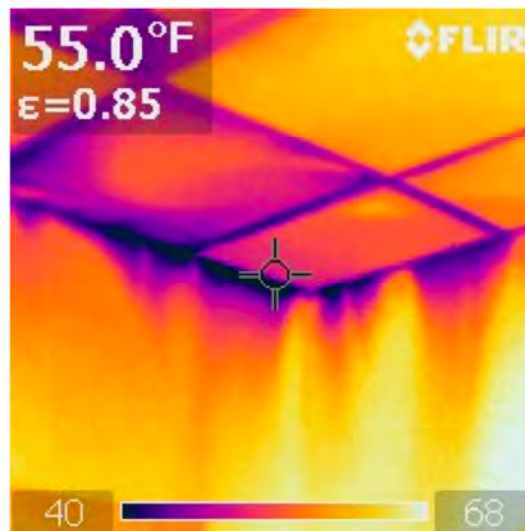
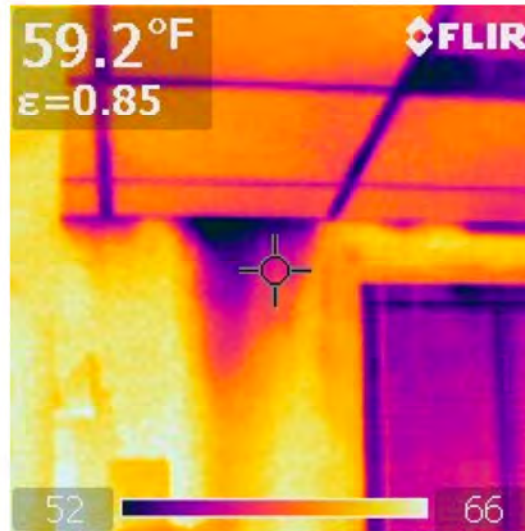
Charlotte Town Hall



Built 1996 4500 square feet

Heat Loss in Town Hall

Ceiling tiles as shown
by infrared camera in
Energy Audit



Results of Energy Efficiency Retrofit

- Final Blower Door test by Building Energy in January 2011
 - 38% reduction in air leakage
 - Estimated 24% in annual heat energy savings which is equal to +/- 500 gallons of oil and 5 tons of carbon dioxide. Assuming \$3/gallon, annual \$ savings are \$1500.

Community Library

- Energy use:
221,854.88 kBtu (2011)
- Annual Energy Cost:
\$6,037.69
(2010 +\$536.18)

EPA Portfolio Manager

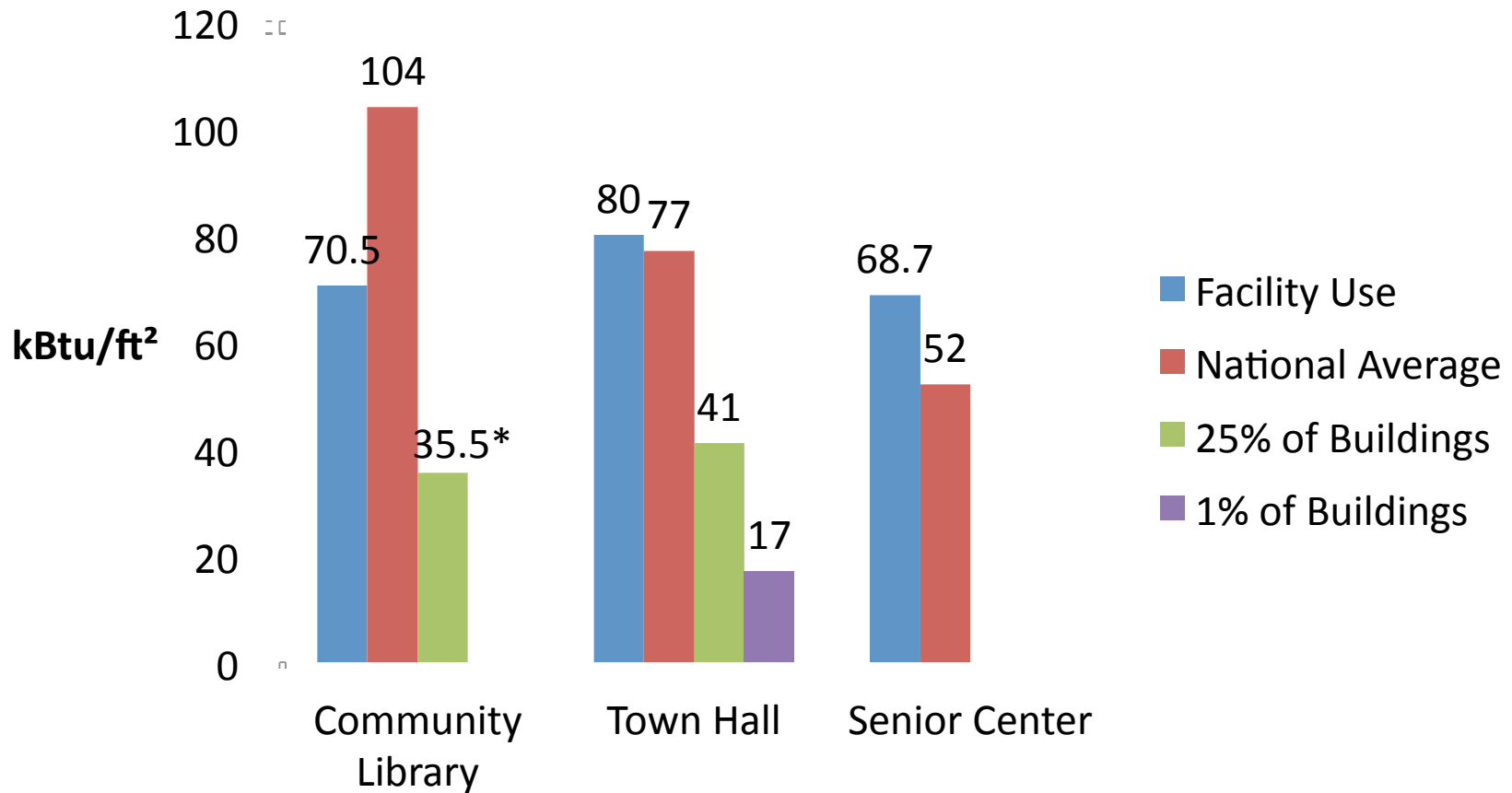


Senior Center

- Electricity use: 10.6% increase since 2010
255,784.06 kBtu (2011)
- Annual Cost:
\$ 6,883.78



Energy Usage Intensity



No Cost Ideas

Behavioral Policies:

- turn off computers, lights, appliances
- turn down A/C in the summer
- reduce heat in winter
- sleep mode

Energy Management Strategy: 7 Steps

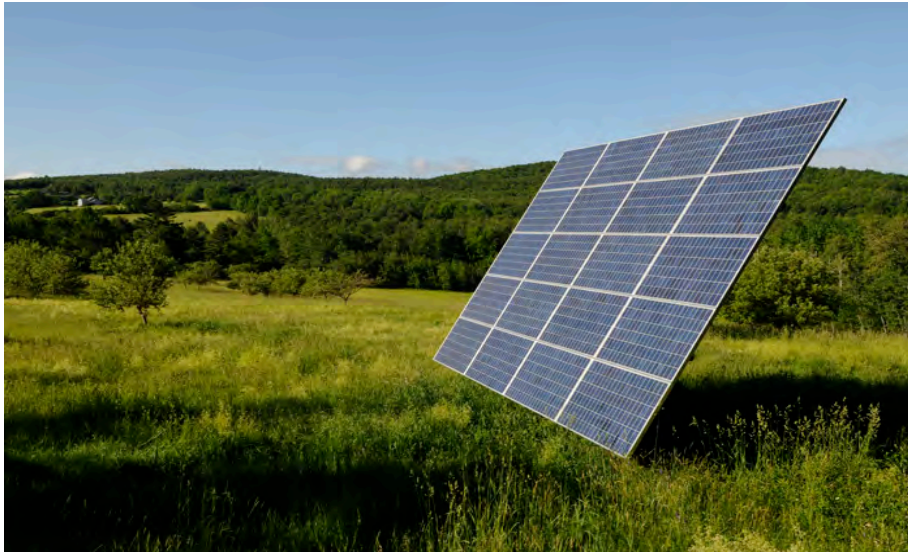
1. Establish Commitment
2. Develop a Baseline
3. Evaluate the system and collect data
4. Identify opportunities
5. Prioritize opportunities
6. Develop plan to implement
7. Track progress and report

TED Energy Monitors



Supporting the Select Board & Planning Commission

- Review of solar PV proposal
- Town plan update
- Geothermal potential in village center



Reducing carbon footprints with local food – yourfarmstand.com



Future Projects & Goals

- Architecture 2030 – new buildings net zero emissions
- Night Skies and star watching
- Youtube video
- Partnering with Transition Town Charlotte for “green” house open day on St. Patrick’s day, March 17, 2012