

VECAN Conference 2014

Local Energy Projects in Charlotte, VT

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Charlotte Energy Committee

Energy in Charlotte

- Energy Task force pre-2009, part of Charlotte Conservation Commission and Sustainable Living Network. In 2007, the Task Force installed 6000 CFC bulbs, but lost steam after initial burst of activity.
- Committee today builds on history. In 2009, open meeting to discuss issues and define mission and create new Committee.
- Moving forward, the Committee recognizes the capacity of volunteers and works with other community groups on common agenda.

Projects from 2010 – 2014

- Efficiency VT Community Energy Mobilization
- Town Hall energy retrofit including weatherization, lights, and energy recovery units.
- PACE
- Proposed Community Solar Project
- Green Homes Open House - Partnered with Transition Town Charlotte for open day and produced youtube video.
- Heat Pump panel
- Town Plan Energy Update

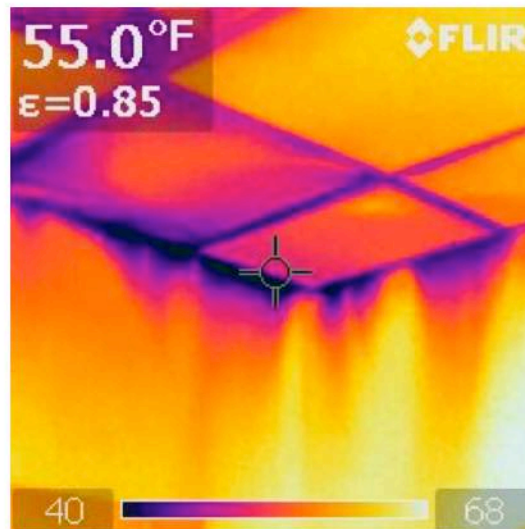
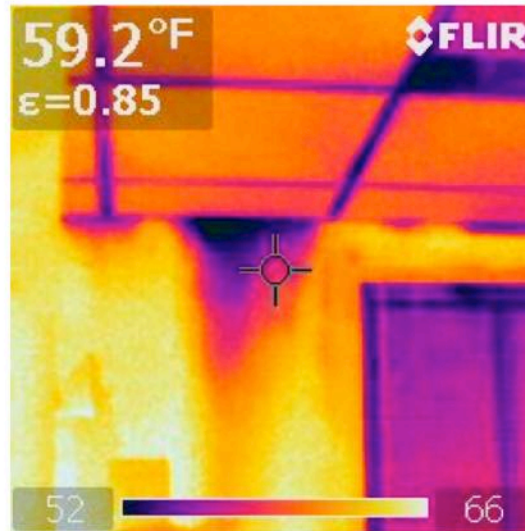
Charlotte Town Hall



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

- Blower Door test showed:
 - 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

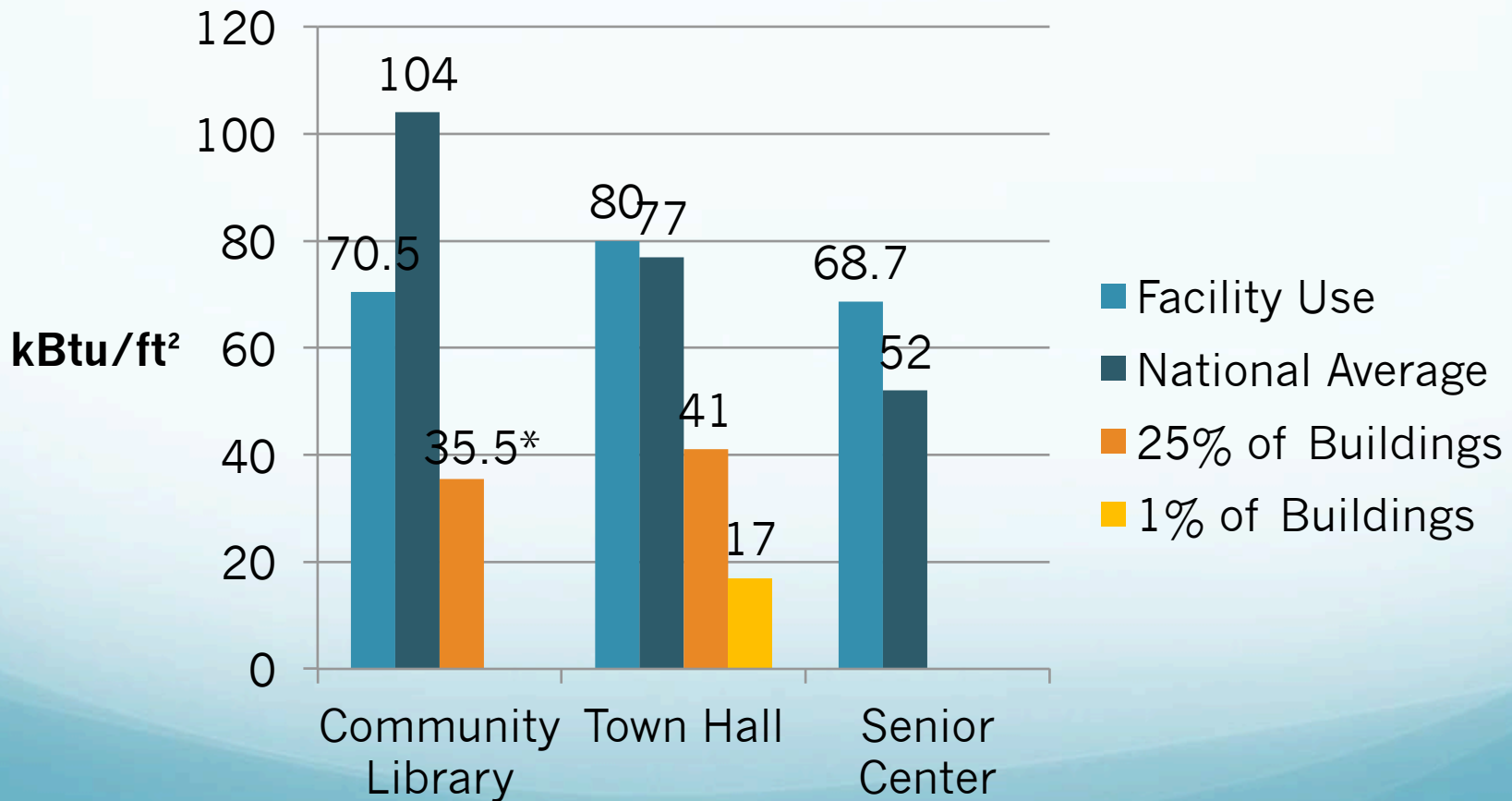
255,784.06 kBtu (2011)

- Annual Cost:

\$ 6,883.78



Energy Usage Intensity





Green Homes.mov



Green Homes.mov

Energy Management Steps to Progress

1. Commitment
2. Baseline
3. Data collection and Evaluation
4. Opportunities identified
5. Prioritized
6. Plan developed to implement
7. Progress – communication & outreach

2015 Projects & Goals

- New energy section in Town Plan - Architecture 2030 – *Net zero energy goal for new buildings by 2030*
- Town Library – planning new roof with better insulation and air sealing – *Estimated savings \$1,700/yr + \$300/yr electric savings*
- Energy Forum for outreach

