

Energy Efficiency and Renewable Energy: Next Steps for Milton

March 4, 2013

In response to record breaking storms Nemo and Sandy lashing the Northeast these last few months, 80% of households across America and here in Milton now accept that global warming is a serious problem. Most americans believe that government should play a major role in taking action. According to the EPA, “Scientists are confident that many of the observed changes in the climate can be linked to the increase in greenhouse gases in the atmosphere, caused largely by people burning fossil fuels to generate electricity, heat and cool buildings, and power vehicles”.

A great starting point for this level of energy savings for Milton households is now available to homeowners through the MassSave energy audit program, which just got easier to implement this winter. Through the coordinated efforts of Sustainable Milton and the Alternate Energy Committee, a company called Sagewell Inc. ran a thermal imaging van, not unlike a google camera truck, through the streets of Milton this winter, developing a thermal image library for Milton residents as they have now done in 30 other towns in New England.

As a result, Milton residents can now retrieve thermal images of their homes (and *only their* homes) online at www.sagewell.com by entering their address and completing the forms identifying them as the owner. These images, which identify where your home is losing energy through the very clear infrared images, will provide great support to the Home Performance Contractor (HPC) you select when you sign up (at the same time) for the Mass Save program. Following the in-home assessment, the program gives qualified homeowners access to discounted energy efficiency products and services, including a 75% insulation discount (up to \$2,000), access to 0% interest loans for qualified improvements (such as window and heating system replacement) along with free compact fluorescents and setback thermostats. Over the past 4 years, according to MassSave, roughly 15% of homes in town have been audited, and about 50% of those have taken significant follow up steps with air sealing, insulation, mechanical and or window work to reduce their energy use.

Another existing grant opportunity that will hopefully spark a real growth in Solar Electric installations for Milton homes was just submitted to Solarize Mass by Sustainable Milton in coordination with the Town of Milton. If accepted, this program sponsored by the Massachusetts Clean Energy Center (www.masscec.com/) and DOER , will provide a community wide program that “encourages the adoption of small-scale solar photovoltaic (PV) projects by deploying a coordinated education, marketing and outreach effort, combined with a group purchasing model that provides increased savings as more people in the community go solar.”

Meanwhile, the municipal efforts in Milton in energy efficiency have saved 29% since the 2008 baseline established for the Energy Reduction Plan that awarded the town Green Community Status in 2010. In addition, renewable energy efforts in town are poised to collectively offset an additional reduction of 26-30% of the town’s GHG’s footprint once the new proposed solar

electric installations for the schools and the wind turbine are added to the solar panels already up and running in town. This combined potential reduction of +/- 58% in emissions from the 2008 benchmark is a big step towards the goals of 80% reduction in GHG's by 2050, the official target accepted by the Commonwealth and the Federal government to get climate change under control.

It turns out however that just over 2% of Milton's town wide GHG footprint is being emitted by municipal services, including the schools. The potential 57% municipal reduction outlined above is just a 1.3% reduction town wide. Close to 56% of Milton's greenhouse gases come from homes, 30% is from vehicles and 12% from the commercial / institutional sectors. On the building side of things, the residential piece of the pie is bigger, just over 80%. The commercial/ institutional sectors are at 17.4%, and the town and school buildings are just under 2.5% (from Milton Alternate Energy Committee, 2013 ICLEI inventory study). A town wide residential efficiency campaign to keep up with the municipal 30% reduction alone would save 7.5 times the energy baseline of the town, 450,000 MMBTU, and reduce emissions by almost 24,000 tons of carbon each year.

The message coming from groups like 350.org is that we have a climate crisis on our hands and really need to act now to stay below a 2 degree C rise in mean global temperature. This limit is what countries of the world agreed on at the Copenhagen Accord, and passing it would lead to climatic change we just won't be able to tolerate. These same scientists note that there is a limit to what we can pump into the atmosphere, and that the fossil fuel companies at this point have 5 times the safe limit of emissions linked to the gas, coal and oil reserves they have identified to burn. As we participate in this necessary growth of energy efficiency and renewables in Milton, we are doing our best to help calm the climate and secure a lasting future for the next generation.

Henry MacLean, Architect
Chair, Milton Alternate Energy Committee

For related graphics to this article, see power point slides for MacLean MATV interview at:
http://timearch.com/assets/MATV_Presentation%2C_2-21-13.pdf