

Minutes
York Energy Steering Committee
December 17, 2015

Present: Rozanna Patane, Chair; Wayne Boardman, Hilary Clark, Stephen Kosacz, Christopher Ring, Victoria Simon; HS Student: Derek Murphy

1. Approval of November 19, 2015 minutes– passed 3–0–1 abstained
2. **Police Building Committee** update: Stephen reported no meetings yet, memo went out to members regarding status, nothing of substance has happened. Building had ice dams and will strip down to studs to put in new insulation. Consensus that all want efficient building. *Stephen will contact chair to offer ESC help.*
3. **School Auditorium Committee** update: Chris reported next meeting Jan 4, 2016; waiting for town vote to give variance for height; *Chris will ask about cost projections for 50 years*, not just standard 20 years.
4. **LED streetlight** project update: Ro will ask Steve Burns to request that Maine Municipal Association and Southern Maine Regional Planning Commission facilitate collaboration on projects; *RFP will be drafted by Chris Lotspeich*, for March 2016.
5. **Old Business**
 - **YB Fire Station**: Final glass panel installed, “*after*” *IR photos will be taken.*
6. **New Business**
 - **Habitat for Humanity York zero–energy home**: Ro reported York and Habitat board are talking about building a home in 2018 on Town–owned land are interested in doing the first Zero Energy Habitat building in Maine; Steve Burns supports idea.
 - Habitat York weatherization project**: Ro reported that Habitat wants to expand its weatherization program; *will introduce them to Michelle Surdoval*, YCSA.
 - Eliot Solar Farm** on landfill Nov 12 public hearing: Garrett not present to report
 - **Sierra Club Climate Action Conference** 12/12/15: Stephen reported on this, good notes from Garrett attached to agenda; will publish inventory of Maine projects. Portland and Belfast solar on landfill project; Bar Harbor community solar farm on town land, some issues about small group benefitting from town land; Wiscasset has municipal building solar and getting signatures to show support before going to selectmen.
 - Solarize York**: Hilary and Stephen reported on conversation with Jennifer Hatch of ReVision– Reviewed three different approaches:
 - Solarize York**: bulk purchase for individual roofs – any number, any community, individuals or organizations (Town signs memorandum of understanding permitting use of name and prepares RFP to establish pricing, health of company, timeline, company deliverables);
 - Solar Farm**: purchase panels on land somewhere. Currently a max of 9 members (law may change). Landowner leases, is paid \$500 – \$1.000/year, maintains insurance,

sample 30-year lease. Revision will look for members. Members pro rate lease price, responsible for operation and maintenance. York looks for land, Sue will assess.

Power Purchase Agreement: for municipal needs, probably too costly for solar farm for individuals; Wayne suggested a town land off Woodbridge Rd behind old CMP building, wet but may be good for solar; another possibility is behind new police building, *Stephen will propose to Police Building Committee*; need to arrange to speak with Rotary; see Hilary's notes from her meeting with Jennifer 12/17/15; Stephen will work with Hilary on this- contact KEYS reps from surrounding towns to see if they want to participate; go to Steve Burns to share idea and map how to present to Selectmen.

-*Add ESC info to ClimateSolutionsME.org*- Stephen K - motion passed 5-0.

-Wayne introduced importance of soil for carbon sequestration - keeping carbon in the ground -- (his notes attached), believes it's being overlooked. *Rozanna will ensure our energy chapter* highlights preserving soil as key to mitigate climate change. Portland is assessing landowners for stormwater runoff by percentage of impervious surface; state will be charging towns for this and York is also looking at doing this and is planning how to encourage stormwater mitigation like rain gardens, swales, etc.

7. Next meeting: January 21, 2016

8. Adjourn

Respectfully submitted: Hilary Clark

Soil Carbon and Its Impact on Greenhouse Gas Mitigation

The article [A Path for Climate Change, Beyond Paris](http://www.nytimes.com/2015/12/01/science/beyond-paris-climate-change-talks.html) (<http://www.nytimes.com/2015/12/01/science/beyond-paris-climate-change-talks.html>) in the Dec. 1, 2015 New York Times is a very good article, and it does reflect what is in our draft Energy Chapter. The author sums up what needs to be done as follows:

Actions needed to limit the most severe effects of global warming

- Increase efficiency of buildings, transportation and industries.
- Eliminate burning fuels wherever possible in favor of using electricity.
- Generate electricity with clean power sources -- such as wind and solar -- and eliminate coal- and gas-fired power plants.
- Phase out gasoline, diesel engines.

As Rozanna states, "This is the work we're doing, in our own small way. It is important work..."

However, I believe that the article overlooks a huge piece of the greenhouse gas picture: soil carbon sequestration to mitigate climate change. It's a complex issue, but this article gives a good overview: <http://e360.yale.edu/feature/soil-as-carbon-storehouse-new-weapon-in-climate-fight/2744/>

Some of the highlights:

"...the world's cultivated soils have lost between 50 and 70 percent of their original carbon stock, much of which has oxidized upon exposure to air to become CO₂."

"Absent carbon and critical microbes, soil becomes mere dirt, a process of deterioration that's been rampant around the globe. Many scientists say that regenerative agricultural practices can turn back the carbon clock, reducing atmospheric CO₂ while also [boosting soil productivity and increasing resilience to floods and drought](http://www.fao.org/docrep/017/i1688e/i1688e06.pdf)." (<http://www.fao.org/docrep/017/i1688e/i1688e06.pdf>)

"Recognition of the vital role played by soil carbon could mark an important if subtle shift in the discussion about global warming, which has been heavily focused on curbing emissions of fossil fuels. But a look at soil brings a sharper focus on potential carbon *sinks*. Reducing emissions is crucial, but soil carbon sequestration needs to be part of the picture as well..."

"Scientists say that more carbon resides in soil than in the atmosphere and all plant life combined; there are [2,500 billion tons of carbon in soil](http://www.nature.com/scitable/knowledge/library/soil-carbon-storage-84223790) (<http://www.nature.com/scitable/knowledge/library/soil-carbon-storage-84223790>), compared with 800 billion tons in the atmosphere and 560 billion tons in plant and animal life. And compared to many proposed geoengineering fixes, storing carbon in soil is simple: It's a matter of returning carbon where it belongs."

More information is at <http://www.npr.org/sections/thesalt/2015/12/07/458063708/carbon-farming-gets-a-nod-at-paris-climate-conference> and <http://www.mnn.com/your-home/organic-farming-gardening/stories/could-carbon-farming-save-our-soils>

Soil Carbon and Its Impact on Greenhouse Gas Mitigation

All this may be interesting (to me anyway), but it doesn't necessarily mean that a single small community like York can do much to significantly sequester soil carbon. However, some of the things that we as a community are already doing (or hoping to do) may result in some good -- or at least cause less harm. Examples that come to mind:

1. Encourage local sustainable farming that improves rather than depletes soil.
2. Continue to fight sprawl through "smart growth" that incentivizes building density in the right places along with the preservation of wilder areas (carbon sinks).
3. Continue to refine and adopt storm water mitigation practices that reduce soil erosion and protect groundwater.
4. Educate homeowners to minimize the unnecessary application of soil-microbe-killing chemicals to lawns and gardens (and maybe even minimize *lawns* themselves which probably sequester very little carbon, if any).
5. Encourage citizen and municipal composting of organic materials and using the resulting compost to enrich the soil.
6. Incentivize truly sustainable forestry practices where appropriate in town.

I believe that whatever we can do to further these goals is a step in the right direction.

~Wayne Boardman

Dec. 15, 2015