Sustainable Hanover Energy Subcommittee
Minutes from 1/11/18

Members (“A” for in attendance, * for telephone/skype)

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<tr>
<td>A</td>
<td>Yolanda Baumgartner (co-chair)</td>
<td>Ian Marcus</td>
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<td>A</td>
<td>Stowe Bean</td>
<td>A</td>
<td>David McManus</td>
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<td>A</td>
<td>Judi Colla</td>
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<td>Honor Passow</td>
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<td>A</td>
<td>Julia Griffin (Town Manager)</td>
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<td>Jackie Richter-Menge</td>
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<td>A</td>
<td>Mike Hillinger</td>
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<td>Marjorie Rogalski</td>
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<td>Rob Houseman (Dir, Planning/Zoning)</td>
<td>April Salas</td>
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<td>Pete Kulbacki (Dir. Public Works)</td>
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<td>Ally Samuels</td>
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Guests: William Clark and Mark Saltsman, Liberty Utilities Business Development

Our next committee meeting will be on the 2nd Thursday in (February 8th.)
We will also have an extra meeting on January 25th.

Presentation from Liberty Utilities (LU):
- Mark Saltsman (Business Development) mark.saltsman@libertyutilities.com
- Bill Clark (Director of Business Development) william.clark@libertyutilities.com

- Yolanda told the staff from LU that Hanover has been working on renewables since 2014. The town vote happened in 2017 - we know there is huge interest from residents in green power.
- Liberty is interested to learn more about what we’re doing with energy in Hanover.
- Bill Clark said that nation-wide, they have over 1500 MW of renewable generation at LU.
- He said that around the country LU is closing coal plants and developing wind.
- In Lake Tahoe they are doing solar and community solar.
- In NH they recently filled a petition to get customers to test battery systems.
- Heather T. (Liberty) is a good person to talk to about the Liberty Utilities battery proposal.
- This is something we can help encourage people to do in Hanover (battery storage.)
- Heather is the lead author of the testimony with the PUC.
- This would be an active marketing campaign for all of the ratepayers.
- They’re capping it at 1000 customers.
- They have clusters of customers where they would like to see them. (Hanover and Lebanon are a part of that area.)
- They’re starting a process of developing new renewable energy projects and looking to decide where to put it.
- There is a 6.1MW cap on renewable generation that Liberty can own.
- Hanover is looking at community solar - Liberty said they would help us with this.
- They think there is potential growth in the area of community solar. They think this is “where it’s going.”
- Hanover said that there were over 350 site visits when they did solarize in Hanover. Not everyone was able to instal. There is a lot of interest.
- There will be an article on the town warrant in May that will make it easier to zone for community solar. We’re probably going to find Hanover residents demanding this at some point.
- Liberty will need to do some grid modernization to handle all of the new demand.
- For municipal - Looking to switch all building heat to heat pumps and eventually move fleet over to electric.
- Hanover had a meeting this morning with Great River (hydro) talking about purchasing RECs.
- Dartmouth has plans to add 1000 kw of solar on campus in phase 2. Also planning for off-site solar, with goal of sourcing ~15% of Dartmouth’s total energy from solar. Plan for 6 MW solar project with Dartmouth.
- CCA article on town warrant.
- Finishing up conversations with “3 degrees” which would help with the aggregation project.
- Julia said that the challenge is sorting through all of the options.
- Dartmouth is driving conversations as well.
- In New Hampshire CCA’s are called Municipal Aggregation and they require “opt in” as opposed to the “opt out” in other states.
- LU has sites in mind. Multi use sites? For gas or solar.
- They’re not sure if they are the best locations for what we want.
- LU wanted to know if the town have any properties in mind?
- LU is looking for 5-7 acres per MW
- Hanover prioritizes local. It’s important for us to host our own site. For going further afield, Southern New Hampshire would be okay.
- Liberty was talking about developing renewable natural gas. They are working on a pilot project right now. They were interested in talking more with us about renewable natural gas. There was a study that showed that New Hampshire is a good location for renewable natural gas. UNH has been on biogas for a while.
- Landfill methane opportunities.
- Food waste could be used to create renewable natural gas.
- Opportunity to create a regional food composting facility and generate energy from landfill gas. We could also mix this project with solar.
- Projects like this are mostly happening in California - and VT (Middlebury) they’re using a dairy farm. This is just for the college. They’re trying to encourage others to do this as well.
- Is there a temptation to also use fracked gas if we’re developing infrastructure for renewable natural gas?
- There is a project in (CT?) that is a composting site and energy generating. There are three revenue streams - composting fee, selling the energy, selling the compost as fertilizer.
- What is the construction cost for pipeline? A few hundred thousand per mile.
- This is mainly for heating.
- The town would like to do a PPA for solar - and we have a site. Liberty would like to help us with this. They said they could “turn something around pretty quickly.” + battery storage. We
won’t have to pay 100% of the cost of the battery because it would be useful to Liberty as well.

- Everyone will do some research on renewable natural gas.

**Discussion of the Public forum in March:**
- Looked at the draft of the program
- March 28th Wednesday
- We have the room from 6-9pm
- We also have the following Wednesday in case there is a snow day.
- This is a month before the town meetings where we will present the warrant articles.
- Decided to publish Energy report for release prior to forum.
- Use forum to showcase local projects that inspire energy eff improvements and/or use of renewables
- We need to get out and talk to residents about the town warrant articles.
- We need to finalize keynote speaker (Julia will invite Dan Kalafatas of 3Degrees)

Recorder - Ally Samuell