

# Somerville Climate Forward

## Energy Working Group Meeting #1

August 10, 2017

### Attendees

- Nancy Huntingford
- Barry Logue
- Malcolm Cummings
- Gabriel Marty
- Patrick Roche
- Kasha Richardson
- Andy Greespon
- Colby Cunningham
- Jurgen Weiss
- Elizabeth Baumel
- Oliver Sellers-Garcia, City of Somerville

### Introduction and Background

- Attendee introductions
- City staff review of Somerville Climate Forward
- Purpose and schedule of Energy Working Group

### Review and Revision of Vision

- This group can cover more than just energy that supplies Somerville buildings
- Suggest revising: “Somerville uses 100% renewable energy to heat and power all homes and buildings.”
- We could theoretically assume that Global Warming Solutions Act will take care of all our energy concerns; however, this group will look at more specific solutions that pertain to Somerville.
- While this group can’t solve all problems in our regional/national energy system, we will address decarbonizing the energy generation.
- The focus should not just be on making Somerville look “green” overnight (e.g., buying RECs). We will focus on solutions that reduce emissions from our activities and energy consumption.
- We need to take carbon out of electricity generation as well thermal energy
- We need to consider the affordability of 100% renewable energy, even if that’s not called out explicitly in the vision statement. 100% is a good goal—but for 2050. This group should come up with interim goals.

- Energy efficiency is the “first fuel” of Somerville—need to think about how this group’s recommendations tie into building and transportation uses. But we also need to be realistic that maximum efficiency might not make economic sense for some segments of our building stock.
- Need to think about how specific to make recommendations in this plan, depending on whether it will be formally adopted and how it will be implemented.
- We need to identify solutions that work for both homeowners and tenants.

### **Idea Brainstorm**

- This is a brainstorm of ideas for the Working Group to consider further and for the City’s consultants to research or evaluate.
- Carbon pricing, and what impact could it have on meeting our goals. Think about MA bills that look promising.
- Is energy efficiency really cheaper than renewable energy in a city that as such an old building stock? What buildings types is energy efficiency best for?
- Identify how big a role is district energy going to play. What types of development is it best suited for in Somerville?
- Building retrofits will be important. It would be very useful to understand what would it take to retrofit buildings in terms of cost and time, both for individual buildings (case studies) and over the whole building stock.
- Is wind or micro-wind power feasible? Attendees discussed that the winds that we are able to access here are so low that the amount of generation is not worth it. We would have to build much, much higher.
- To get a sense of the scale of renewable energy generation needed for our city, we could calculate how many offshore wind turbines would we need to supply all of Somerville.
- Would it make sense for the City to become a direct investor in a renewable energy system (like Harvard)?
- Does geothermal work here? What would the City’s role be? Look at CHP in Manhattan/NJ and Veolia in Cambridge and Boston. How would residents eventually tie into a geothermal network? What fuels would be good for district energy?
- Reporting energy can be a powerful tool. But we have to think about how frequently can we get data, and what can we do with it. Is building energy disclosure a possible solution for Somerville? Could we use more granular data for any effective programs?
- Could we do a power purchase agreement using bulk buying power of City?
- What can be done to reduce hot water heating? How big of an impact would that make? Where has this been implemented? (Most interested in public buildings)
- Is there a role for a smart grid in our planning for taking city-level action today? What are utilities’ smart grid plans, and what can we leverage in the future?
- Utility incentive programs need to be better aligned (e.g., not pushing conversion to natural gas) with our goals.
- State statute that allows aggregation, also allows the City to take the MassSave piece of bill directly. Could the City explore this power to implement more ambitious programs?

- Create incentives/requirements for landlords. Could this be done through rental licensing?
- Infrastructure upgrades should be coordinated across all utilities and infrastructure systems. Information and outreach—have to get buy in on these things.
- What ordinances can the City pass to regulate these things? For example, parking requirements for hotels in Somerville.
- Education and outreach is a powerful tool, especially at the consumption level. What is the population turnover rate? We need to develop programs for education that don't focus on educating people once.
- Community solar. Give people a path to an ownership stake. What kinds of legislation needs to be passed at the state level?
- Could we apply the stormwater fee/utility model to energy? Or can you use the property tax mechanism? How can incentives balance it out?
- Is it possible or advantageous to bury power lines? We discussed that this is not common in America except for very dense places.
- Many energy solutions should incorporate energy resiliency.
- Floating solar panel arrays. Can we use the Mystic River? Can we ally with more cities and put a big floating solar array on some bigger body of water outside of Somerville?
- Passive cooling/heating
- Plants as insulation