Community Shared Solar Brookline Working Group

Minutes

09/09/2015, 6:00 pm, Denny room, public health building

Jenny Fariborz, Jack Spence, Ira Dobrow, Dave Pantalone, Ernie Frey, David Lescohier, Don Weitzman, Werner Lohe, John Bassett, Willy Osborn, Scott Englander, Tommy Vitolo, John Harris, Tom Kilday, Nataly Cahn (guest)

Action Items: Next Meeting; (2nd Wednesday, October 14th, 6:00 – 7:30 pm, Denny room, public Health building, 11 Peirce St.)

- Further discussion with Village Power,
- Update on possible site in Carlisle,
- Additional specifics about / evaluation of available PPA vendors,
- Update about Yeloha.

Tasks:

- Review working group progress and discuss next steps.
- Presentation by Nataly Cahn of Yeloha Solar Sharing.

Updates

Jenny Fariborz, working with Susan Martin has arranged a web page on the Climate Action Brookline website. The role of the web page currently is to provide an archive of the minutes of working meetings and possibly other files containing reference materials.

http://climateactionbrookline.org/how-to-cut-carbon/community-solar

Other discussion

Jenny Fariborz reviewed the activities of the working group since March with the aim of summarizing what we have learned so far:

- Identifying a site for a large (at least 300 kW) array in Brookline was not successful and the likelihood of finding available land, roof, or parking lots in Brookline is low.
- The Town is currently developing solar on Town owned properties and these are community shared solar in the sense that the benefits of the solar plants reduces the

Town's carbon footprint and the savings offset taxes.

- There is growing competition for available sites in eastern Massachusetts since the western part of the state has reached its cap and many companies are now crowding into this area, even though land and property are more expensive here, in order to keep busy.

- The Coop Power model which would mean that Brookline residents engaging in a community shared solar project would for a coop and affiliate with Coop Power is a realistic choice, but could be pursued only if we have identified a suitable site.

- Village Power offers an intriguing opportunity because they offer the back-end capacity and a web platform for signing up investors or participants. Village power has identified a rooftop in Woburn capable of hosting a 700 Kw array. However the timing of the project precludes the investor alternative for us, leaving us with a PPA opportunity, which doesn't fit our mission well and is not superior to offerings of a large number of entities currently marketing in the PPA space.

Willy Osborn explained the two pathways that are possibilities for the Brookline Community Shared Solar Working group:

- Developer owned community shared solar means that a developer has formed a LLC, lined up investors, hired a EPC (engineering, procurement, construction) vendor, obtained all permits, cap allocations, interconnection agreements, and therefore operates a solar PV array plant. The developer, through marketing operations such as Next Step Living, NRG, Nexamp, Community Energy, Village Power, and many others seeks to sell the electricity through net metering PPA (power purchase agreement) contracts. Examing and understanding the terms of these agreements can be quite tedious. There are particular concerns about the rules for termination which a customer may face if the contract is a long term one. A substantial portion of the benefits accrue to the developer and the investors, though the discount that the customer receives has improved from a typical 5% in the past to currently 15 – 20%.

- User owned community shared solar means that residents of Brookline interested in investing and owning their panels and therefore receiving the full benefit of ownership rather sharing the benefits with outside investors would form an entity (such as a coop as described above). Ballpark, a 5 kW share in a community project may cost $3.00/watt or $15,000. The electricity generated would offset its full value through net metering, as well as substantial tax credits (for those who could use them) and solar renewable energy certificates which can be sold at auction or retired as a further commitment to green energy.

Nataly Cahn explained Yeloha Solar Sharing program:

Yeloha offers an extremely easy, participant friendly, model. Yeloha is inspired by the sharing economy business model (AirBnB is a possible analogy). Yeloha matches those who have roofs

suitable for hosting a solar array with those without roofs who are seeking to obtain electricity from a carbon-free source of supply (subscribers). Hosts receive some free power (about 20% of the output of the solar system) as compensation for the use of their roofs. Subscribers access a green source of electricity by subscribing to the output of a panel or panels for one, three, or 20 years. The cost is $65/year for a 280 watt panel that is guaranteed to provide 336 kWh per year.

Here is an example that Nataly wasn't able to present because she didn't have an internet link in the Denny room (This is based on link Nataly provided after the meeting):

- If your household uses 6554 kWh per year, you pay $1353 at current Eversource retail prices.

- **Find out how many panel subscriptions you would need if you decided to go green with Yeloha**: Divide 6554 kWh/yr by 336kWh/yr/panel. To supply the total 6554 kWh you would need more than 19 panels.

- You wouldn't want to subscribe to a full 19 panels, however.

- Backing off, say you decide to subscribe to 18 panels. (This would be a subscription for 5 kW.)

- **Find out how many kWh the 18 panels will supply**: Eighteen solar PV panels, times 336kWh/yr per panel, means your solar subscription would supply 6048 kWh per year.

- **Find out how much the subscription will cost**: The subscription for 18 panels would cost $65 x 18 panels = $1170 per year.

- **Find out how much the panel supplied power is worth at current retail prices**: The value of the power from these panels at retail current prices would be 18 panels x 336kWh x $0.21 = $1270.

- **Find out how much you would still owe Eversource**: You would still pay Eversource for the difference between the Yeloha supplied power and your total use, which would be 397 kWh/yr, costing $83/yr at current retail prices.

- **Find out how much you save**: Adding what you pay to Yeloha, which is actually a pre-pay for the green supplied power, with the remainder supplied by Eversource, the total is $1170 + $83 = $1253 which is $100 less than the Eversouce retail cost of $1353 at current retail prices, a 7.4% saving for the year.

Typically, people who enter into power purchase agreements receive two bills. The first bill bills for the solar supplied electricity at the discounted rate. The second is the Eversource bill, which can be confusing and means that you are dealing with two entities if there is a problem. With Yeloha, it all happens on the Eversource bill which is already familiar to many people.

Yeloha's terms make it easy to terminate. Yeloha provides a performance guarantee. If the panels do not produce as promised, Yeloha will refund the difference pro rata. There is low risk because it is a subscription model. Someone can subscribe for one, three or 20 years. A longer subscription term would lock in the current subscription price, but otherwise the terms are the same.

Nataly said that Yeloha is bringing about 65 kW of new capacity to market each month. There are various incentives and finders fees incentives that may be relevant for Brookline. Yeloha uses a website similar to the other vendors to attract and enter subscriptions as well as hosts.

- David Lescohier

The next meeting will be on 2nd Wednesday, October 14th, 2015 at 6:00 – 7:30 PM in the Denny room, public health building, 11 Pierce Street. Group will review tasks identified under "Action Steps".