Community Shared Solar Brookline Committee

Minutes

02/11/2015

Jenny Faribroz, Bob Miller, Peggy Ueda, David Lowe, Willy Osborn,
Ernie Frey, Tom Kilday, Mary Dewart, Jack Spence, Werner Lowe, David Lescohier

Action Items for Next Meeting (March 11, 6:00 pm, Town Hall, Room 408)

Werner - Draft and circulate a simple mission statement.

David - Follow up on Devotion School as possible site. (possible meeting with Tom and Bob re exterior design)

Willy - Draft a questionnaire for researching existing CSS projects

All - Pick an existing CSS project and research it by talking with those involved (Willy, David, and Werner may have to help organize this.)

Introductions:

Werner Lohe opened the meeting at 6:00 PM in Room 111 in Town Hall. Werner suggested that we hold meetings on the second Wednesday of each month and that they start and end on time.

Werner briefly reviewed the history of efforts to promote increases in the installation of solar PV renewable energy generation in Brookline. He mentioned the towns past and current solar PV installation activities, the solarize campaign, and current plans underway such as a ground mounted installation at the Singletree Reservoir site in Chestnut Hill.

David Lescohier briefly described the work at Corey Hill Condominium, currently the largest array in Brookline, the first condo in the state to directly own a solar PV plant, and one of a handful of community shared solar (CSS) installations in Massachusetts.

The meeting continued going around the room asking everyone to introduce themselves and state what their goals and interests are for participating in this group.

Ernie Frey, who lives at 423-431 Washington Street, a condominium, provided an update regarding the solar PV installation on their condo. He said that the current project will go into production in April, if all goes as expected. He also said that the current array will cover only 40% of the roof, so there is the potential for a phase 2 which could be a CSS.

Bob Miller is active in Climate Action Brookline (CAB) and has solar on his house. He is interested in making the benefits and opportunities of solar PV available to those without suitable roofs, renters, etc.

Jack Spence has been active with 350.org and lives in a 2 family near the high school and is interested in being a CSS owner.

Mary Dewart is active in CAB, is the organizer for Climate Week Brookline, and is interested in becoming a CSS owner.

Willy Osborn has 30 years of experience as an energy lawyer, an investor, creator of solar investment funds, and has developed solar PV projects of up to 200 kW. He is interest in developing the contracts, byelaws, and structures for CSS for the public domain as a way to reduce soft costs for CSS projects.

Jenny Fariborz is interested in owning CSS.

Peggy Ueda is interested in owning CSS. She has a 3 story condo with an elevator and the common area demand is considerable. She owns the roof and wants to see if solar PV could right for her building.

David Lowe is active with CAB and Massachusetts Climate Action Network, a statewide advocacy group that CAB belongs to. David has recently begun working with Generaytor, a company that is developing a social media app like AirBNB or Uber that aims to connect those who own suitable solar PV hosting site with those who want to buy solar PV, but can't host it where they live. The company will match and arrange the installations, manage the financing and finances, and buy and sell subscriptions to hosted solar PV arrays.

Discussion:

Werner asked which tracks folks thought are right for this committee to pursue. The big question is 'where', the site for solar PV? How do we find owners of big properties?

Jenny Fariborz noted that it might be possible to approach large owners of rental properties about developing a single project on multiple properties.

Willy Osborn said it is too early to approach owners of properties. The owners need to see the model, the costs, the benefits, the terms, the liabilities. We need to say how the CSS will be organized. What entity will develop and manage it?

Mary Dewart said that any CSS needs a champion to make it happen. Our role could be to indentify and support these champions. Models and templates, and the benefit of prior experience would be valuable to these champions.

Willy Osborn said that we need answers to questions about how tax credits, depreciation allowances, SREC revenue, and the retail rate for kWh, ownership relationships, financing, organizational model and structure in order to figure out whether potential models may work for a Brookline CSS.

Werner suggested that a Brookline location is preferred but that other locations could also work from the point of view of virtual net metering.

Bob Miller explained that there is a misalignment of incentives when it comes to businesses in Brookline because they are renters and not able to install solar PV on the buildings where their businesses operate. On the other hand, they could participate as subscribers since they may not access to the building where they are located.

David Lescohier said that when it comes to CSS models and possible structures for CSS projects, other states are ahead of Massachusetts. Colorado already has a CSS Association law and the public utilities commission in Colorado has written regulations recognizing CSS and incorporating CSS Associations into their net metering and interconnection structures. Utilities are required to purchase the production of a CSS until it has enough subscribers for up to 18 months, which is a plus for applying for loans. It defines CSS to be op to 10 mW and it must have at least 10 subscribers. When it comes to applying for loans and purchasing insurance, this legislation is very useful. Minnesota has analyzed the Colorado law and regulations and looking to replicate the rules in Colorado. Mr. Lescohier suggested that this Colorado and Minnesota development could provide a template for Brookline and Massachusetts.

Wrap Up:

As the time limit for meeting approached, thoughts turned to tasks for the next meeting. **Jack Spence** suggested that we as a group try to put ourselves in the shoes of a potential investor or subscriber in a CSS array in Brookline. Thinking what we would need to know and present to a property owner, developer, bank, or to persons in this room who came because they are interested in investing or subscribing should be a guide for our first phase, exploration and information gathering.

Willy Osborn suggested that members of the group volunteer to prepare case studies of CSS projects to be presented at the next meeting.

- David Lescohier

The next meeting will be on Wednesday, March 11, 2015 at 6:00 – 7:30 PM in Town Hall, room 408.

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If you are interested, (and have time for more reading) here is some background information that may help us in our work:

Minnesota Analysis (Here is a link to the website of the Minnesota Renewable Energy Society).

This document (on the MRES website) analyzes the Colorado law and the regulations that Colorado adopted to implement the Colorado CSS law. It discusses the issues (and compromises) that were under negotiation with the retail Colorado power provider, Excelon.

http://www.mnrenewables.org/sites/mnrenewables.org/files/Community%20Solar%20Gardens%20N.pdf

Colorado Law:

http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251900820730&ssbinary=true

IREC (here is a link to the Interstate Renewable Energy Council) **recommendations** for CSS rules (for any state to consider) with specific examples from California, Colorado, and Vermont; as well as comments about **Massachusetts'** renewable energy policies.

Model Rules for Shared Renewable Energy Programs

Here are brief **case studies** of CSS projects in Florida, Arizona, and Colorado:

Community Shared Solar: Diverse Approaches to a Common Goal

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Willy Osborn recommended case study questions:

Model or entity

- What is the entity which owns and operates the CSS system?
    - LCC (who are the members: ultimate kWh users? Outside investors? And who is the manager or Managing Member)

- Association, such as a Condo Assn or other Homeowners' Assn
- Corporation, such as a for-profit S or C corp, or non-profit or Mutual Benefit corp
- Are there multiple entities involved (for example, one entity for development of the system; another for ownership of the system; another of members/users contracting with the system owner for benefits; another for the O&M and Admin of the CSS system)
- How many members and what are their proportional ownerships?

<u>What benefits do the members or users get (the homeowners who sign up)</u>

- Net metering credits? (kWh or $$ credits to their home energy bill allocated by proportional ownership of the CSS system)
- Tax benefits – Federal and state
  - Federal 30% tax credit – how do they get this? Is there an opinion by a tax lawyer or accountant that they are entitled to this? Do they get a Federal form K-1 for filing with their taxes?
  - Federal accelerated MACRS depreciation deduction – same questions as above. Plus: how do they qualify for this if they are not a business
  - State credits and deductions
- Other benefits? e.g. state and local grants or foundation grants

<u>Performance and Financial details</u>

- What is the size (in DC & AC nameplate rated kW) of the CSS system
- What is the annual production in AC kWh (and what is the value to the members of this kWh?)
- Can we see the financial statements for the CSS
- What are the annual costs for roof or ground rent, O&M, admin (inc tax), insurance, and taxes (esp, property taxes)

Other

- Can we see the documents for the CSS system: Site Lease; LLC or Assn operating agreements and by-laws; PPA (Power Purchase Agreement); EPC (Engineering, Procurement, Construction – essentially the contractor or installer agreement); O&M; Admin or management (with party who takes care of reporting, billing, collections, monitoring, utility relationship, member transfers, etc.)
- Offer to share other docs and info we have: remember we are trying to assemble an "Open Source" library of these documents to streamline the adoption of CSS systems

Appendix:

Brookline 2012 Climate Action Plan

COMMUNITY SHARED SOLAR

(Action no. TBD (2014-01?))

Liaison

David Lescohier, Werner Lohe, Lara Curtis Hayes

Action Team

To be assembled.

Description

Adopted by C.A.C. 12/15/14

A Community Shared Solar (CSS) project is a solar photovoltaic (PV) system that provides benefits-such as electricity, net metering credits, and return on investment-to multiple participants. A CSS project is hosted by an entity with a suitable roof or parcel of land andis supported by multiple participants, who invest in the project or purchase the electricity or net metering credits generated. CSS offers an alternative for those who cannot install solar on their own property. See *http://www.mass.gov/eea/energy-utilities-c/ean-tech/renewable-energy/solar/community-shared-solar. html.* The Massachusetts Department of Energy Resources (DOER)is encouraging local development of Community Shared Solar. It has prepared two documents: "Community Shared Solar: Review and Recommendations for Massachusetts Models" *(http:// www.mass.gov/eea/docs/doer/renewables/so/ar/community-shared-so/ar-model-frameworks· 032813.pdf)* and "Community Shared Solar: Implementation Guidelines for Massachusetts

Communities" *(http://www.mass.gov/eea/docs/doer/renewables/solar/community· shared-so/ar- implementation-guidelines-with· contracts-032913.pdf).*

Individual residents or businesses would finance a new solar installation by either purchasing the right to a specified share or the energy generated or net metering credits derived from the energy, or entering into a similar long-term (typically 20-year), no-money-down contract to purchase electricity. Each investment would be limited to a maximum 25 kW of solar capacity.

In addition to media outreach, considerable volunteer assistance would be needed to recruit participants to the program.

Implementation

A subcommittee of the CAC (probably including representatives of Climate Action Brookline (CAB) and other interested residents) would be formed to consider next steps, working with the Brookline Planning Department. It might be possible for the Town to apply to DOER's Green Communities Division for a second grant for Owner's Agents Technical Assistance (OATA) to hire an owner's agent to determine if a community shared solar project is viable in Brookline. Ifthat is not permitted under DOER rules, other approaches would be considered.

Current Activity

David Lescohier, Lara Curtis Hayes, and Kara Brewton met in mid-October 2014 with Institutional Community Solar Advisor Celis Brisbin of Next Step Living (NSL) to learn about a model available from NSL. David Lescohier and Werner Lohe met in early October to discuss the suitability of presenting development of a community shared solar project as a new action to be added to the Brookline Climate Action Plan.

Goal

Completion of a 1MW community shared solar project in Brookline.

Unresolved Questions

Identification of a site in Brookline will be the first challenge. If none is suitable, it may be possible to locate a site outside of Brookline in which Brookline residents can invest.

Typically, CSS works best on large (1-2 MW) sites. Alternatively, a smaller project might be developed within Brookline, with the possibility of using that as a model to develop other small CSS projects in Brookline.

Potentional GHG Emissions Reduction

GHG Emissions Reduction *(Tons* C02e)	bv 2020	bv 2050
100 kW site	?	?
500 kW site	?	?
1MW site	?	?

Quantitative Analysis

(TBD with help of CAC Goals and Measurements Subcommittee)

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Thumbnail Description for Appendix A of the Climate Action Plan:

Community Shared Solar: Establish a working group and develop a Community Shared Solar (CSS) project for Brookline residents and businesses based upon one of the two CSS models developed by the Massachusetts Department of Energy Resources (DOER).

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11/13/14 - WL typos corrected 12/18/14