



MEETING AGENDA  
 Town of Concord  
**Comprehensive Sustainability & Energy Committee (CSEC)**  
 Date: Thursday, Feb 17, 2022  
 Time: 7:00 - 9:00 PM  
 Location: **Zoom**

In accordance with M.G.L. ch. 30A, §18-25, notice is hereby given that the Comprehensive Sustainability and Energy Committee will hold a public meeting on **Thursday, February 17, 2022 at 7:00PM.**

To participate in this meeting you may video conference in to

<https://us02web.zoom.us/j/81071825294?pwd=WWRFt0t5VEliWjMvZTZCMnhBSGdTUT09>

or use

Meeting ID: 810 7182 5294  
 Passcode: 995347

To call-in by phone dial 301-715-8592 with Meeting ID and Passcode above. Please note that dial-in participants will be muted and will not be able to make comments.

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|--|--------|
| 1. Welcome and Call to Order (Jerry)                                 | [7:00] |
| 2. Approval of minutes from Jan 13 <sup>th</sup> (Karen)             | [7:02] |
| 3. Chair's Update (Jerry)  | [7:10] |
| 4. Director's Update (Amanda)  | [7:15] |
| 5. Proposed Solar Warrant Article (Charlie Parker and Dean Banfield) | [7:20] |
| 6. Sustainability Series   | [7:40] |
| a. Keynote (Janet)   |        |
| b. Arbor Day Celebration (Amanda)                                    |        |
| c. CSEC - CCHS event (Brad)  |        |
| d. Your Sustainable Home Now (Doug)                                  |        |
| e. Heating and Cooling with Heat Pumps (Sharon)                      |        |
| f. EV charging (Janet)   |        |
| g. Cooler Concord support (Hany)                                     |        |
| h. Promotion (Jerry)   |        |
| 7. Concord Business Partnership Meeting (Mike)                       | [8:40] |
| 8. CSEC and CAAB Coordination (Jerry)                                | [8:45] |
| 9. Liaison reports (Janet: EVWG, Doug: CAAB)                         | [8:50] |
| 10. Public Comment   | [8:55] |
| 11. Adjourn  | [9:00] |

**2022 Comprehensive Sustainability & Energy Committee (CSEC):**

Jerry Frenkil	Resident (current Chair)	Bob Shatten	Resident
Janet Miller	Resident (*18 Chair)	Michael McDonald	Resident
Doug Sharpe	Resident (*19 & '20 Chair)	Amanda Kohn	(Sustainability Director)

Karen Gibson	Resident (Clerk)	Matt Johnson	(Select Board Liaison)
Sharon Jones	Resident	Nathan Bosdet	(Town Planning Bd Liaison)
Hany Teylouni	Resident		

## COMPREHENSIVE SUSTAINABILITY & ENERGY COMMITTEE

*DRAFT Meeting Minutes  
Thursday, January 13, 2022*

Pursuant to a notice duly filed with the Town Clerk, a meeting of the Comprehensive Sustainability & Energy Committee was held on January 13, 2022 at 7:00 pm via Zoom. CSEC members present were Jerry Frenkil (Chair), Karen Gibson (Clerk), Sharon Jones, Janet Miller, Bob Shatten, and Hany Teylouni. Also present were Brad Hubbard-Nelson, Amanda Kohn (Sustainability Director), Matt Johnson (Select Board), and Eric Reinhard, Laura Davis.

### 1. Welcome and Call to Order

Jerry called the meeting to order at 7:02 pm.

### 2. Approval of minutes from December 16<sup>th</sup>

Karen noted minor corrections she received to the minutes. Janet moved to approve the minutes as amended. Hany seconded. The minutes were unanimously approved as amended.

### 3. Chair's Update

Jerry reported on progress for the Concord Middle School (CMS) PV. He noted concerns had been raised regarding the projected cost figures presented from CMLP. CMLP will ask for quotes once the building is approved at Town Meeting. If CMLP proposes that they own the arrays and that it be financed through a bond offering, the bond offering might not be approved. If set up as a PPA, this is within aegis of CMLP and would not have to go to a vote. Matt Johnson said that CMS has committed to a building a net zero school, and the Light Board has made a commitment to provide solar. There are many options related to ownership, management, funding that still need to be worked out. The push for the net zero school with solar PV is being driven by the Town's sustainability plan calling for 20 MW of solar generation by 2030.

Jerry reported speaking with Jan Aceti who asked about the efficiency between induction cooking vs electric conduction cooking. Brad responded there is a lot of efficiency within the house—use of induction stoves may lower GHGs, but this depends on where electricity is coming from. Sharon offered to contact Jan Aceti and follow up with a response. Matt read a study that concluded that conduction and induction have same efficiency, but the size of the burner has to match the size of the pot. He will find document and circulate it. Janet said the difference is the induction heats pan and food, but not cooktop—another benefit of induction – must less waste heat.

#### 4. Director's Update

Amanda reported she sent around the Director's update and would like feedback from CSEC members. She will post on CAAB's website. If the public is looking for an update, they can find it there. She will send her report to CSEC members prior to meetings, and will bring highlights to the meetings.

She expressed sadness that Brad has stepped down from CSEC, but encouraged CSEC members to have interested people to apply—for either CSEC or CAAB. Jerry recognized Brad's long service to CSEC and the Town, and thanked him for his efforts.

#### 5. Sustainability Series

Jerry gave a brief update on the series, including a description and the tentative event list. The EV Working group is interested in doing a workshop with CSEC. The Library would like to work with CSEC on a native seedling event. Mothers Out Front is interested in learning about heat pumps. Brad mentioned that his group, Heat Smart, could organize a community presentation for Mothers Out Front. The Heat Smart Alliance has its monthly meeting tomorrow at 7:30am.

Janet gave an update on the Keynote address. Prof. Kerry Emanuel has agreed to do a webinar with Q&A on April 13 at 7pm. By this time next month, we should have title and an abstract. Jerry suggested Janet ask if April 27—after school vacation—also works. Amanda offered to include some interactive online aspects, such as polls, Google Jam Board, Word Cloud.

Brad presented his idea for a World Café type workshop (in person, or zoom) on the heels of the Keynote address—with breakout sessions for deep listening and focusing on specific motivational questions; then a wrap-up. Target date is April 27. Brad would like a person or two from CSEC to help out. Brad will send the proposal to CSEC members.

Brad presented the Cooler Concord Climate Challenge and teams, and suggested using the keynote to inspire people to sign up for the Climate Challenge.

Laura Davis expressed interested in collaboration broadly on sustainability series. She asked if CSEC had considered something that would be more family friendly than online webinars. They would be interested in collaborating on an outdoor event – sustainability fair for example – and bringing in a lot of groups. Jerry and Laura will speak offline to explore possibilities.

Jerry presented the idea for the “Your Sustainable Home Now” event. He and Doug spoke with Reni at the Library. They are interested in collaborating and can be flexible on dates—likely to be a virtual event. CSEC needs to update the existing presentation materials, which provide a good introduction to the things people can do in their own homes.

Jerry presented the Sustainability for Concord Businesses effort. Michael has reached out to Concord Business Partnership. They are interested in hearing from CSEC. There will be a premeeting next week. Amanda will attend the Feb 2 meeting to introduce Concord Sustainability. Jerry pointed out that if this doesn't fit into the series, we shouldn't force it there, but should pursue opening channels of communication and brainstorming what we can do together.

Janet presented the idea to collaborate with the EV working group on an event. There may be cars available for a ride and drive event in the fall. The EV working group suggested an event covering charging and tips on winter driving, walking people through trip planning and various available apps; and a possible virtual bingo game. Amanda suggested using the bingo card to keep people engaged beyond the event; e.g. the "EV in the wild" initiative (photos of EVs with notable places in Concord). Next step is to flesh out details and decide a title by mid-February. Janet will take the lead. June would be a good time for this charging event.

Jerry presented the Library's event, "Plant a Native Seedling", that they would like to collaborate with CSEC on. They will help promote CSEC events. This event would be run by the Library, but CSEC could provide additional information for those people picking up trees—additional climate action perspectives. Amanda noted that one of the sustainability goals is to become a tree city that celebrates Arbor Day. Concord hasn't declared its Arbor Day yet. There are a lot of other events on April 29 and because this will be a big draw, is it a way to draw in people to the Climate Challenge? We would have to use "Arbor Day" in promoting this event in order to take credit for it as part of Concord becoming a tree city.

Hany talked about promoting the Sustainability Series using the Cooler Concord website. He suggested using the url and/or QR code to access the events on the site for the sustainability series on the website. Event registration will be through the Cooler Concord website. We will be able to track where registrations are coming from through Google Analytics. Anything sent out electronically, should include a link to this site.

## 6. Annual Report

Janet drafted and Jerry edited a first draft of a 2021 Annual Report for CSEC. There was discussion about the number of EVs and homes that have had heat pumps installed.

Eric Reinhard, Mill Circle, Concord, asked if it would be appropriate to quote how much leverage money was available to from the Town. Amanda suggested adding something about working with Concord Heats Electric, and suggested that CSEC add "Check out Cooler Concord website for events in 2022". The deadline is next week.

## 7. CSEC statement for Special Town Meeting

Jerry presented a statement on the PV for CMS for Town Meeting and asked if CSEC members all agreed with the statement. If there is a discussion about PV at CMS during

Town meeting, Jerry will make this comment on behalf of CSEC. CSEC members agreed. Brad noted that there is a document being drafted by Charlie Parker encouraging CMLP to have a plan to get to the goal of 20MW of solar generation that CSEC should be aware of.

8. Liaison reports

CSEC members did not have anything to add to the earlier discussion.

9. Public Comment

Laura Davis, 330 Garfield Rd, Concord suggested adding a sentence or two about where we are and how we got there with regard to Town Meeting. There may be confusion about what we are voting on. She suggested along the lines of “Today at Town meeting we are voting on a net zero school that will replace two fossil burning schools. Later there will be a separate vote on solar/PV to be added to the school.”

Eric Reinhard expressed excitement for the sustainability series and Kerry Emanuel’s keynote address especially.

10. Adjourn

Karen moved to adjourn. Sharon seconded. The committee adjourned at 9:02pm.

**ARTICLE \_\_. To see if the Town will vote to urge the Concord Municipal Light Plant to develop an action plan and schedule for the achievement of the Town's 2030 solar capacity targets focused on development of new power generation on Town-owned properties and present the plan and schedule to both the Select Board and FINCOM before the end of 2022.**

The proposed Article is intended to align the strategic objectives of CMLP and those of the Concord Climate Action Plan ("Sustainable Concord") vis a vis solar energy generation on town owned land and buildings. The Climate Action Plan targets 20MW of solar generation on municipal/school properties by 2030, which will require building an average of 1.5-2MW of solar capacity per year. While the recent CMLP activity regarding CMS is encouraging, the current CMLP strategic plan does not include any specifics for solar development. The petitioners would hope to see at least 1MW of solar capacity developed by the end of 2023. Increasing local power generation can produce technical benefits, as well as ensure that Concord directly shares the burdens of decarbonizing the power we use.

## **Development Plan for Municipal Solar Development**

Article \_ To see if the Town will vote to urge the Concord Municipal Light Plant to develop an action plan and schedule for the achievement of the Town's 2030 solar capacity targets focused on development of new power generation on Town-owned properties and present the plan and schedule to both the Select Board and FinCom before the end of 2022.

# Where Are We Now?

- In 2010, CMLP targeted 25MW of solar by 2030
  - 2010 48kW array, Willard School
- 2011 Solar Siting Report identified 22MW of potential
  - 2014 1.7MW former landfill
  - 2017 5.6MW former WR Grace property
- In 2017, CMLP adopted an 8 year strategy
  - Further municipal solar was written out
  - Local energy storage initiative scheduled for 2022
- The 2021 Climate Action Plan targets 20MW by 2030

# Climate Action Plan

## Indicators of Success

How we generate electricity is a huge determinant in Concord's ability to meet its climate action and resilience goals. With a municipal utility, we have an opportunity to accelerate the adoption of non-fossil fuel electricity generation and these indicators will help keep us on track. We can use the indicators below to track our progress.

Indicator	Baseline Data	Baseline Year	2030 Target
GHG Emissions from electricity generation <sup>16</sup>	54,234 MTCO <sub>2</sub> e	2016	0
Percent carbon-free electricity <sup>17</sup>	54%	2018	100%
Total MW capacity of residential renewable generation installations in Concord <sup>18</sup>	3.5 MW	2020	5.44 MW
Number of homes with rooftop solar <sup>19</sup>	358	2020	558
Number of homes with battery storage <sup>20</sup>	9	2020	109
Total MW capacity of solar generation on town property <sup>21</sup>	7.57 MW	2020	20 MW
Total MWh capacity of battery storage on town property <sup>22</sup>	0	2020	60MWh

# Is Local Solar Important to the Town?

- CMLP can 'green the grid' via purchases
  - Offloads infrastructure to others
- Are we 'doing our share' to reduce overall GHG
  - 2021 MA Climate bill 3% annual increase
  - MA Leadership – 'Clean Peak Standard'
- Municipal Light Plants are exempted?

# Challenges Presented by Solar

- Are the financials acceptable (rates)
- Solar peak production causes instability
  - Power needs to be reliable

# Benefits from Local Solar

- Local renewable energy to serve demand peak
  - Benefits are enhanced by battery storage
  - Transmission and capacity savings
- Long term, known costs. No surprises.
  - Predictable effect on rates

# Why Solar Now?

- The urgency of now: Limiting temp rise to 1.5°
- The Commonwealth needs our participation
  - Renewables require real infrastructure
- Financial opportunities
  - Top 1% (peak) demand hours = 8% of electricity costs
  - Top 10% = 40% of electricity costs
  - Addressing peak is key to avoiding infrastructure costs

# What Will This Mean?

- In Town solar = 6% of power portfolio (7.5MWs)
  - 20MWs goal adds another 8% (12.5MWs)
- CMS potential = 1.1 MWs (2025)
  - Plus, Beede, CCHS, new Public Safety Bldg
  - Plus, another utility scale site
- Get started now

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