

COMPREHENSIVE SUSTAINABILITY & ENERGY COMMITTEE

Meeting Minutes
Thursday, February 18, 2021

Pursuant to a notice duly filed with the Town Clerk, a meeting of the Comprehensive Sustainability & Energy Committee was held on February 18, 2021 at 3:30pm via Zoom. CSEC members present were Douglas Sharpe (chair), Jerry Frenkil, Julie Kleyn (clerk), Janet Miller, Brad Hubbard-Nelson, Sharon Jones and Bob Shatten. Also present were Andy Puchrik, Eric Boroush, Charlie Parker, Karlen Reed, Pamela Dritt and Eric Reinhart

1. Welcome

- Doug welcomed visitors: Andy Puchrik, Eric Boroush, Charlie Parker, Karlen Reed, Pamela Dritt and Eric Reinhart. The visitors introduced themselves briefly.

2. Approval of January 21, 2021 minutes

- Brad and Jerry clarified their comments.
- Janet motioned to approve as amended, Brad seconded, all approved.

3. Time-sensitive announcements:

- Public forum on library sustainability **February 24 at 7pm**, register [here](#) for the zoom link.
- Community forum for the CMS building project, also **February 24 at 7pm**. Register [here](#) for the zoom link.
- Friday **February 26, at 9am** the CMS building sub-committee will meet to review the sustainability plans for the new building. Support for a Net Zero building not a Net Zero ready building is critically needed. Join the discussion with [this zoom link](#).
- The Sustainable Middlesex annual meeting will present [Carbon Countdown](#). **March 13, 9:30-11:30am**. Register [here](#) for the zoom link.

4. Next meeting:

- Thursday March 18, 2021, 3:30-5:30pm

5. Planning board liaison update: Karen G

- Karen was not present so there was no update.

6. CMLP Liaison update (Jerry)

- At the most recent CMLP meeting, director, Dave Woods, emphasized battery storage as a key priority. After their March meeting, Dave said this would be their focus.
- One issue that CMLP is considering is whether they should buy batteries and manage them themselves, or contract with Energy New England (ENE) to manage them.
- CMLP chair, Alice Kaufman, wants to look into an incentive program for advanced metering
- Alice also wants an update on the CMS building project by next meeting

7. CMS building/sustainability update (Jerry)

- Jerry has worked with Charlie Parker, member of the CMS Building Committee, on CMS building sustainability issues.
- The sustainability sub-committee of the CMS building committee has drafted their recommendations to present to the CMS building committee.
- CMS does not have schematics yet, nor a design for the feasibility study which would map out how much PV is needed for the roof and map out the site.
- Some things are going well:
 - EUI (Energy Use Intensity) will be under 25. This is pretty good and the sub-committee held their ground when the architect pushed back on this. Charlie Parker said the EUI could be better, like 23.
 - The building will be net-zero ready (to install solar and battery storage) but Jerry says it should be net-zero, not merely net-zero ready. He pointed out that other towns have school building projects with a net-zero goal.
- One option is that the school could raise the money to add PV and thereby make the new building net-zero, OR it could work with CMLP to engage a PPA through a third party.
- Jerry stressed that being net-zero would be a cash-flow positive experience for CMS.
- CMS would like CMLP to weigh in as to whether or not a PPA would be a viable option.
- Charlie and Jerry agree that the fact that there is no “champion” at CMS (staff, parents etc) pushing the solar message is a problem. There needs to be more people supporting solar at CMS, a more aggressive push. Brad said a champion on the finance committee would be good. Jerry said he’d spoken to members of the finance committee but since their job is to minimize debt service, financing a solar installation would run counter to their mission.
- Eric asked why the school is anti-solar, Jerry responded that it’s not, but it doesn’t want the operation and maintenance of solar arrays and it doesn’t want to borrow more money (2 or 3 more million dollars would be required to invest in solar). Eric pointed out that there needs to be more education about the savings over time of solar.
- Charlie said it’s not about asking the building project to manage the generation itself, but to fund the solar array and CMLP should manage the rest. Charlie said CMLP said publicly that they would do a PPA. The problem is that solar is not on CMS’ radar because they believe CMLP will be taking care of this.
- Brad asked who takes care of the solar array at Willard School/
- Charlie said progress has been frustratingly slow because of covid, and needs to get back on track. One problem is that Dave Woods is very busy.

- Jerry asked what can we do as a committee and Charlie said come to meetings, show citizen interest, speak up. Kate said there is a public forum on February 24.
- Bad asked for an update on AMI meters. Will they be starting in 2023 or will they be in all houses by 2023. Jerry wasn't sure about specific timing.

8. Discussion of biomass as a renewable energy source (Brad)

MCAN is asking MLP communities to pass this resolution* as soon as they can to correct the perception that legislators have that MLPs want biomass to be considered a renewable resource

- June 2019, CSEC wrote [letter to Select Board**](#) on the subject
- Also will ask CAAB to endorse this at their meeting next week.
- Should CSEC have a response to this?

9. CECP 2030 MA State Clean Energy Climate Plan - Brad Hubbard-Nelson

- [Clean Energy and Climate Plan](#) is a 10-year update on the Global Warming Solutions Act from the Governor's office. Seeking comments by March 22nd.
- Brad noted the following
 - 45% reduction below the 1990 level in 2030 (IPCC worldwide recommendation for 1.5 deg C warming)
 - Transportation: emissions reduction about 25% (8 MMTCO_{2e}) in 10 years to about 22 MMTCO_{2e} by 2030, from electrifying Light Duty Vehicles (LDVs)
 - Buildings: emissions reduction by nearly 50% (9.4 MMT) to 10.3 MMT. ■ Fuel oil use reduced by 90% - very aggressive
 - Electrify 1M (out of 2.65M) households by 2030 (*Concord should electrify > 50% since electricity more advantageous*)
 - Electricity: emission reduction by about 5 MMT to about 9 MMT, largely from offshore wind
 - Industrial and non-energy: relatively small
 - Carbon Sequestration from protecting forests: of order 10 MMT by 2050 ■ 64% of the land area (approximately 3.3 million acres) is categorized as forested, capable of sequestering ~ 5MMT. (Unclear to me how you can count this, unless additional forests are found.)
- Doug asked what happens to plan after March 22, Brad says it moves to the executive branch for approval.
- Kate said the town has sent numerous letters in support of this plan.

10. EV working group update (Janet)

- Last meeting was February 2
- Jan Aceti is pushing hard to support ENE

- 74 people entered the recent Drive & Save raffle (fill out survey to be entered)
- Working hard to bring attention to driving electric with FaceBook posts and a newsletter
- Brad asked if there was a target number of EVs. As many as possible, Kate replied.

11. CAAB liaison update (Doug)

- Jake (committee chair) is working on home energy scoring system metrics for sustainability of individual homes. When homes are on the market to be sold, an index will provide prospective buyers with an energy evaluation for the property. Kate said Jake will present other similar work by other towns in future.
- Senator Barrett's ambitious Clean Energy and Climate bill was vetoed by the Governor. The legislature has re-submitted the bill to the Governor, who has asked for amendments instead
- Electrification accelerator, how can Concord encourage electrification?
A 3-prong approach is proposed:
 1. Non-binding resolution from Concord Select Board, they voted unanimously February 8 to approve this
 2. Get more help at state level, communities are limited about accelerating
 3. Zoning incentives -- gauge interest in doing more green zoning.
- CMLP presented to CAAB on decarbonization,
 - a. the distinction between non-emitting v renewable energy. (Non-emitting energy allows for nuclear, renewable energy does not.)
 - b. Supply v demand.
 - c. Overview of RECs.
- Kate will give an update on the GHG inventory at their meeting next week.

12. Update on *Concord Heats Electric* (Brad)

- February 4th meeting with Kate Hanley, Jan Aceti, Mike McAteer, Gilda, Sharon, Brad
 - Mainly focused on goals, a lot of planning needed
 - CMLP planning to update Strategic Plan which is not in sync with the scale of the emission reduction challenge
 - Example: current coaching plan from grant: at least 150 coaching engagements over 18 months. Which is quite a lot, but may need significantly more
 - Jan is supportive of goals but very busy with managing the CMLP / Abode coaching program startup.
- What can we do in the meantime:
 - Home Energy Plan design
 - Investigate other examples
 - Survey or focus group
 - Content generation (one page guides) – Brad would like CSEC to help write these
 - Guide to heat pumps and solar with TOU ■
 - Guide to backup batteries/generators

- Guide to weatherization and rebates
- Updated SolarPV and EV Guides
- Guide to Home Energy Efficiency on home sales

13. Discussion/Update about development of Concord Heat Pump Installation case studies.

- Several case studies have been generated using Kate’s template
- These cannot be in the shared CSEC GoogleDrive but will be collected and managed by Brad. Brad also will share the list of homeowners who CSEC needs to reach out to for interviews.
- Kate offered to help wordsmith the case study interviews that CSEC conducts.
- Kate has written up Sharon’s case study as an example. Janet has done one for Doug which he should review.
- Jerry asked whether the committee needs to approve each case study. Julie said case studies are factual reporting pieces, not opinion pieces, so should not require committee approval.

14. Public comments

- Doug mentioned Lenten goals: a list of goals for people interested in becoming carbon neutral.

15. Adjourn

- Janet motioned to adjourn at 5:30pm, Brad seconded, all approved.

*MCAN Biomass Resolution for Concord Select board

A Resolution in Opposition to State Subsidies & Incentives for Biomass Plants

WHEREAS, the *Select Board of the Town of Concord*, [*advised by the Town’s Climate Action Advisory Board and Comprehensive Sustainability and Energy Committee*](#), is committed to ensuring and safeguarding the health, safety, and environment of the residents of our community, and

WHEREAS, wood-burning biomass plants are a highly polluting form of energy generation, known to release pollutants including fine particulate matter, volatile organic compounds, nitrogen oxides, carbon monoxide, and carbon dioxide, and

WHEREAS, the Commonwealth adopted science-driven Renewable Portfolio Standard (RPS) regulations in 2012 recognizing that wood-burning power plants emit more carbon dioxide than fossil fuel power plants per unit of energy generated,

WHEREAS, due to the 2012 RPS regulations, the only wood-burning biomass plants eligible for Massachusetts renewable energy subsidies have been small, efficient combined-heat-and-power biomass plants, and

WHEREAS, if the weakened RPS regulations proposed in December 2020 by the Massachusetts Department of Energy Resources (DOER) go into effect, Massachusetts subsidies and incentives would be available for inefficient large-scale biomass power plants, and

WHEREAS, the proposed RPS regulations would wrongly incentivize and directly subsidize the construction of a large-scale wood-burning biomass plant proposed by Palmer Renewable Energy in Springfield, an Environmental Justice community already heavily burdened by industrial air pollution and by record-setting rates of asthma and other respiratory illnesses, and

WHEREAS, our *Select Board* stands in solidarity with the residents of the City of Springfield, and the Springfield City Council, which passed a resolution on December 21, 2020, opposing Massachusetts state subsidies and incentives for wood-burning biomass plants,

WHEREAS, Palmer Renewable Energy has been marketing energy from its proposed Springfield biomass plant to municipal light plants across the Commonwealth,

NOW, THEREFORE BE IT RESOLVED, that the *Select Board* opposes any state subsidies or incentives for commercial wood-burning biomass plants in the Commonwealth of Massachusetts, and

BE IT FURTHER RESOLVED, that the *Select Board* calls upon Concord Municipal Light Plant not to enter into any agreements to purchase electricity produced from woody biomass combustion and to explore all legal avenues for withdrawing from any such existing agreements,

BE IT FURTHER RESOLVED, that the *Select Board* calls upon the Massachusetts DOER to revise the proposed RPS regulations by returning the woody biomass provisions to their previous, science-based language, and

BE IT FURTHER RESOLVED, that the *Select Board* calls upon the Joint Committee on Telecommunications, Utilities, and Energy of the Massachusetts Legislature to hold an accessible public hearing on said proposed RPS regulations, and

BE IT FURTHER RESOLVED, that the *Select Board* urges its State Legislative Delegation to support legislation in the forthcoming session of the Massachusetts General Court to remove and bar taxpayer and ratepayer incentives for commercial biomass power plants in the Commonwealth of Massachusetts, and

BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to *Michael Barrett and Tami Gouveia*, as well as Governor Charles Baker, DOER Commissioner Patrick Woodcock, and the Co-Chairs of the Joint Committee on Telecommunications, Utilities, and Energy Committee, Senator Mike Barrett and Representative Jeff Roy.

****Letter to Select Board on biomass**

June 7th, 2019

To the Concord Select Board:

This letter sent to Director Dave Wood and the CMLP Light Board chair was endorsed by CSEC at the June 5th meeting. CSEC would like the Select Board to consider endorsing it also and communicating such with CMLP, the light board, and Governor Baker's office.

We applaud the steps being taken by CMLP to purchase renewable power from offshore wind projects. However, we understand from the recent light board meeting that the CMLP is planning to, or

has already contracted, biomass generated power from a new plant near Springfield called Palmer Biomass. In the best case, biomass from harvested wood chips is far from a low-carbon power source. Such power plants are relatively low efficiency plants, resulting in more CO₂ generated than from fossil fuels, in addition to energy required for harvesting and preparation. Though possible in principle that the trees are grown sustainably, generally this is not the case, and increased use of biomass for power generation will cause it to become less and less sustainable.

It may be that the regulations consider biomass as within the RPS, thanks to the Baker administration reversing the previous administration's decision to not include it. It doesn't mean that biomass is environmentally sound, or anywhere near carbon-free. Biomass was included in the RPS-equivalent in the UK, and now power plants there are importing so much timber from the southeastern US that it is very, very damaging to the environment. Fuel markets and RPS regulations are not concerned about that, but instead about doing profitable business under the pretense of environmental sustainability. The biomass industry considers forest resources not put to "productive use" as lost income; we consider the value of wilderness and old-growth forests for biodiversity and climate resiliency to be incalculable.

Biodiversity may seem a bit abstract and of competing importance to achieving climate goals. To put it in perspective, consider that the population of vertebrates (excluding humans and livestock) worldwide has declined more than 70 percent from 30 years ago according to peer-reviewed studies. This collapse is happening within our lifetime. A recent UN report estimates a million species will be lost in the next decades from a combination of climate change and habitat loss. The eminent biologist E.O. Wilson has expressed the need for wildlife corridors to be expanded and protected., which doesn't mean farmed woodlots that have very little value as habitat. A growing wood chip market in MA will put pressure on forests throughout New England.

Further, due to loopholes in regulations on power plants, combustion of wood chips emits more particulate emissions (PM_{2.5}) than coal or other fuels, causing health problems and added costs for people with asthma. The emissions issues around biomass is documented In [this research paper](#), and is one reason why such plants tend to be located in economically disadvantaged communities like Palmer. We note that the original intention for Palmer Biomass was to burn construction and demolition debris, in addition to wood chips, which has aggravated the emissions issue in some other power plants.

More importantly, wood chips are not a low-emissions fuel, even if the RPS rules pretend it is. Simply put, due to low efficiency compared to other fuels, the CO₂ emissions per unit of energy is higher than coal, oil or natural gas. The argument that harvested wood is a renewable resource ignores the fact that the new growth replacing wood harvested today will take 30 years to mature to the age where comparable emissions are sequestered.

For HeatSmart in 2018, we included the option of wood pellet boilers that the Mass Clean Energy Center consider renewable. It may be a good solution for heating certain homes because wood for heating is a higher-value, more efficient use than using wood to generate electricity. However as it is expensive and does not provide cooling, very few people were interested in it. During HeatSmart we spoke with Thomas Walker from Lincoln who authored the *Manomet* study on wood pellets for heating, which MassCEC used for their rationale. Tom observes that "expansion of the biomass electric sector would certainly put more CO₂ into the atmosphere over the coming decades, and any benefits from forests growing back would likely take far too long to be realized to help us avoid impacts of warming."

For these reasons, we have asked the CMLP to withdraw from the biomass plan, even if it delays our reaching 100% renewable power. We can get there without it, by purchasing more wind or other carbon-free power.

Sincerely,

Concord's Comprehensive Sustainability and Energy Committee (by unanimous vote, June 5th)

Brad Hubbard-Nelson
Doug Sharpe, Chair
Julie Kleyn
Janet Miller
Karen Gibson

The following citizen groups have expressed their support for this letter and its goals:

Carbon-Free Concord
ConcordCAN! – the Concord Climate Action Network
Mothers-Out-Front