

City of Cambridge
Climate Protection Action Committee

Minutes

Thursday, March 10, 2016
City Hall Annex, 344 Broadway

Attendees: Lauren Miller (chair); Olga Factorovich Allen; Rosalie Anders; Sarah Brylinsky; Melissa Chan; Tom Chase; Peter Crawley; Keith Giampartone; Shawn Hesse; Ted Live; Sarah Mandlebaum; Christopher Nielson; Tom Page; Paula Phipps; David Rabkin; Keren Schlomy; William Zamparelli; Quinton Zondervan; *staff:* Susanne Rasmussen; Bronwyn Cooke; John Bolduc

Guests: Talia Arnow, Peggy Barnes-Lenart

❖ **Approval of minutes – February 11, 2016**

We have a quorum. Meeting minutes approved.

❖ **ETP Director's Report: Recent initiatives and activities**

- We have 2 RFPs going out soon.
 1. city-wide GHG inventory., this is part of Compact of Mayors requirement. Will have a lot of proxy data.
 2. low carbon energy supply study (part of net zero) look at current and future demand and supply options across on site renewables, offsite, smart grid, etc. Very essential part to getting to a fossil-free future. This will take about one year.
- Cambridge is getting a 5 star rating under the STAR Communities rating program. There are well over 100 different metrics and 8 core areas.
 - Peter: would this system be used in the interim years to track progress internally?
 - Susanne: Cambridge did all the work and then submitted it, STAR. It is too intensive to recalculate every year. Too burdensome and demanding.
 - Bronwyn: There are some metrics that we track anyway annually, but others are too intensive. It's the full spectrum of sustainability (triple bottom line).
 - Susanne: how will the community get to see the results?
 - Bronwyn: the STAR dashboard has categories and total points, can see details, just points. Original submission was received back with comments, and we are now about to resubmit for another review. So officially haven't gotten the 5 star, but based on current points we did it. (Baltimore, Seattle, Northampton).
- There is a parking day public meeting next week (4-8), where you take over a parking spot for a day. Get a lawn chair and have fun! Converting a parking spot to useful space.

❖ **April Meeting Planning**

- We have done lots of brainstorming with lots of high level conversations. April we will go to metrics, objectives.
- Kings School on Putnam in Cambridgeport. David asked whether we can get a tour.
 - David: a tour would be good, the public meeting will be a great opportunity for the public to see it. And it raises awareness that CPAC exists.

- John: would it be possible for people to come earlier? Because don't want to cut into our regular meeting time.
- Lauren: availability?: Yes people would be available and willing to hold a 3 meeting. Will be April 14th.
- King Open will still aiming for fossil free, except for backup generation for emergency. They expanded the geothermal field, and created redundancies. The pool will not be enclosed. Is about to be demolished and rebuilt.

❖ **Project Drawdown**

- Lauren: The next step is to compare this to CPACs goals and objectives so assess what is outside of scope and what we are already doing. Will a few people be willing to sit down with the city with the goal and objectives document and match over the next few months. Yes that works with people.

❖ **Decarbonizing the City**

- Lauren: Last meeting provided lots of ideas for what might be applicable to Cambridge.
- Chris: I will recap. Last time we presented how to move to an all-electric system. Keith made the case that no-combustion, all electric and reducing load from the very beginning. The project that was presented was all-electric to show it is possible, not much more expensive. Its super insulated, heat pumps to heat and cool the building. Local project was presented on how this works with existing buildings (super insulate, reducing sq. footage of space, and what are the technological needs in order to heat and cool, and amounts of energy required).
- Chris: Let's identify where CPAC can have the greatest impact?
- Quinton: did the presentations get distributed to the group? → Yes
- Quinton: Cambridgeport retrofit; is there a website? → no, there will be one post-construction, mid-summer
- Quinton: Is there a communication plan? Would there be objection is Cambridge to take pictures and promote on social media?
- Tom: Will need to reach out
- John: We could compile a set of properties to publicize the all-electric, etc.
- Quinton: We get a lot of questions on residential homes and communities. What are we going to do about triple deckers??
- Rosalie: That was obviously after a fire. Are there lessons we can pull out for other buildings that are not going to be that extensively renovated?? So regular property owners have a sense of what to do. There are other opportunity moments that we can be jumping into.
- Tom: Aligning electrification initiative with the cost savings initiative.
- Rosalie: insulation isn't as sexy.
- Chris: insulating can happen at any time, but a boiler you think about at a particular time. Now because fuel is so cheap it's hard to make the case to switch it out for electrification. How much of our buildings are insulated versus not?
- Peter: NextStepLiving, etc. are really focused on this kind of thing and have their programs, I wonder if you guys had looked at their programs and saw some gaps or new tech or approaches, where then they could improve their offerings. They have a delivery system and are well equipped.
- Quinton: Right now we are doing the Georgetown Energy Prize. We are asking people to do their energy assessment. I was disappointed about the amount of \$ the city has budgeted for the program. That is our delivery system, that's how we get the word out.

- John: To convert our building stock to all electric and up the efficiency is a big lift. If we can understand what the transformation looks like in a practical sense, then we blitz them.
- Quinton: Its going to be years until most homes get to that point. So what we should be doing right now is getting everyone to do energy efficiency, which primes the pump, so when they are ready they already know about it.
- Keith: This will allow them to right-size your system, because you are getting efficiency right
- Susanne: There is a lot of work going on to get people to do efficiency. Even when people do the audit, conversion rate from audit to project is abysmal. We are focused on multi-family sector. Eversource has state approved programs that run for 3 years. We had a multi-family pilot together that was supposed to address the barriers, and we kept fighting, because they didn't want to do that actual pilot – because they wanted to come up with a program that was going to be approved by the state. General contractor from audit to end of project, and better incentives. Hoping to get that pilot with real assistance so that someone actually helps with the project.
- Susanne: Come up with funding so that a person can guide families through solar.
- Tom: we mostly work with multifamily owners. We no longer suggest improvements midstream, only during transfer of ownership, because the incentives work better that way.
- Susanne: time of sale and time of renovation requirement. Net Zero Plan goal of incorporating energy efficiency improvements at the time of sale or time of renovation requirement.
- Tom Page: When will this be required?
- John: This requires a feasibility study
- Quinton: At least 5 years.
- Susanne: Feasibility 2017-2018, potential requirement 2019.
- Quinton :Before it becomes required, we can make it a service for people. There is a consultant
- Paula: envelope, NextStepLiving recommends replacing windows. But window replacement is expensive – is it possible to have a negotiation for bulk purchase of windows?
- Peter: 8 years ago DOER was piloting home energy rating system. Building energy use disclosure ordinance, similarly. Would it make sense to move that down to the single family, etc. Then at the time of sale, the building has to meet a certain threshold – the seller has to do it before they pass title. There is usually some money available on a sale here in Cam ridge. They do it with Title V.
- John: Can we try to first understand what the transformation looks like? Then try to come up with a holistic approach than a bunch of band aids?
- Lauren: So what does it look like? No fossil fuel look like?
- Quinton: They are all running on electricity. What I am hearing is that this is going to take a long time, to drive that process through the building stock. So what can we do today to move into that direction. Maybe we need to focus on time of sale or time of renovation to get these energy efficiency improvements. Because we don't have any tools
- John: There is more than just going electric. There is people's expectations, insulation, etc. There are a lot of pieces to think through.
- Lauren: The amount of insulation you needed go out, and then go in to, losing square footage. So price for square foot, etc., this could feel like a loss of money.

- Shawn: We need to focus the conversation on what CPAC has control over and what we can and should do. Look at the thread of all of this, improving energy efficiency in existing building stock. How to figure it out to get the efficiency into the existing building stock. Incentives don't work, so the city has to require, but they can only at certain times: occupancy, renovation, building permit. My recommendation is put our weight behind.
- John: you could require electrification. Palo Alto had a report about how they plan to electrify and the different steps they would need to take.
- Tom Paige: I think it's too early to talk about promotion of electrification, its 20 years away! Unless you have adequate space for solar. Simply electrifying will increase your emissions if you are buying from the grid. It is much better to focus on buying green power, most efficient gas systems, and purchase off-sets. This is decades away, a policy to pursue electrification.
- Chris Nielson: We don't have time to take that stance. We do have technological solutions now to electrify our buildings. Yes the grid needs to be addressed but CPAC isn't positioned to tackle it, but others are now working to fix the grid.
Taking the stance
- Tom Page: though its technically possible, it may not be good public policy to promote it. We have to focus on reduction for everyone, promoting this technology is a small percentage, but encouraging things that are more feasible now would have more impact.
- Shawn: technical feasibility vs market feasibility were baked into the net zero plan. Policy should focus on energy efficiency.
- Rosalie: it's hard to get people to do stuff. Our heat and cooling bill is low, because of insulation. Why doesn't everyone invest into insulation and save all the money?? If we are thinking about the standards at the point of sale, we need to keep it pretty simple, and something like degree of insulation something we could quantify – and that would take us a long way. There is so much to gain right there.
- Quinton: I tried to electrify, with solar hot water, then it breaks. It took >1 for the city to agree because of some code issues of how the tank will drain. Because they required it, we had to do it. So if you have to comply with the law. If it's important, lets require it. And before we required, lets assist people with it.
- Keith: Here are the basics: you can't do anything unless you insulate the envelope, you need the stick not just the carrot. Whatever it takes to get to the R-value. If you make it a requirement, starting in 2019, all houses at point of sale have to be RX. Need a stick!! You need to start now with the program support and finance.
- Lauren: What about all the common areas that are less efficient - condo buildings
- Susanne: All of this is in the plan.
- Lauren: What are we missing from the plan?
- Tom Chase: Is there a role to get financiers together. MA doesn't have the power insurance program, ME and PA has it. Federal program exists Power Saver Program.
- Q: We were going to explore a carbon fund and an energy performance fund that would get more funding flowing into the energy efficiency programs.
- Susanne: Low carbon energy supply study will also focus on thermal. Cities that are closing in on fossil free, thermal energy is important in the long term planning. In parallel with electrification/
- Q: what can we do?

- S: It would be helpful to start talking about point of sale, etc. there needs to be a lot of thought to contribute to that. We think that the buyer will be better positioned, because they often want to renovate. The large businesses were very concerned, because often nothing happens on the ground, and so would be hugely disruptive, should only be time of renovation. So there is a lot of nuance.
- Peter: Agree, except that the seller doesn't have to do the work, they can put the money into a fund, the buyer can use the fund.
- Quinton: What does the conversation look like? Do we convene a seminar?
- John: The feasibility study is planned.
- Susanne: feasibility study doesn't start for another 1.5 years
- John: Should work with the consultant on the study. Details of the measures and plan needs to be identified. So the committee can help ID the right questions. We haven't included electrification in the plan, and if CPAC can add that it will be comprehensive
- Tom Page: There could be half measures required at time of sale. Min levels of insulation, rating. Multiple policies need to be worked through
- Quinton: Consultant hiring is the bottleneck, can we recommend to move that up?
- Susanne: We can't accelerate one thing in the plan without dropping something else. There is a commitment that stakeholders are involved at every step of the way and we are pushing up against that.
- Quinton: Does it make sense to hire the consultant sooner so CPAC can start having those conversations.
- Susanne: The budget is done, and so we can't tweak it to hire a consultant this FY is not feasible. First order of business is to debrief with City of Berkeley who have time of sale requirements, etc.
- Peter: The city council is considering a transfer tax for an affordable housing fund. The mechanism may be expanded so it applies to energy efficiency. Devereaux will propose this. Somerville has this in their plan that will be vote don.
- Sarah M: If we know efficiency is priority #1, what else is needed for electrification?
- Chris N: With more site generated electricity, there are more issues with how to manage that. Also tech for managing all energy in a building.

❖ **Compact of Mayors**

- Cambridge joined in December. This discussion will inform the metrics discussion in April.
 - Bronwyn: Compact of Mayors, started in 2014, initiative, c40 cities, ICLEI, UN Habitat, etc. global coalition of mayors and city officials around climate change preparedness and GHG mitigation. Cities commit to a set of actions, and to report activities.
 - 450 cities participating, 5% of world's population
 - Impetus: leading up to COP21 there was discussion that nationally there wasn't enough going on, so action was really in the cities, so they wanted to aggregate it to take it to Paris.
 - Cambridge was already doing most or was planning on doing.
 - The requirements are 8: mitigation and adaptation.
 - commit to reduce GHG emissions
 - Measure GHG emissions (community inventory)
 - Set targets for the community

- Create an action plan on attaining targets
 - Commit to preparing for cc
 - Hazard reporting
 - Vulnerability assessment
 - Preparedness plan
- So the community inventory is the huge hurdle. We are required Scope 1, Scope 2, and Scope 3 waste, are doing this. And In-boundary transportation, still figuring out the boundary and sources. For solid waste its waste coming out of the city and where it goes.
 - We are hiring a consultant to complete inventory. RFP goes out on the 17th. The scope we are asking for a lot, and if we need to do it in 5 years. Methodology, there are instances where categories aren't helpful for Cambridge planning purposes, so we are asking them to follow the protocol, but also have them break down data that would be useful. Develop forecast methodology is also required so that's in the RFP. Then we will actually do the inventory. It has to be well documented and given to the city.
 - Last piece on the mitigation side, once we do an inventory, what's next. How do we set a target.
 - We need a climate action plan. We already have a lot of plans. The big task will be compiling all existing plans, and identifying what's missing.
- Peter: On the question of setting the targets, are they going to use the context based, science based method for goal setting? I would suggest that this gets done. Interim targets are very important. I'm surprised that the protocol doesn't explicitly state that you need a science based goal.
- Bronwyn: What is standardized is how things are reported out, but what happens behind the scenes is flexible. There needs to be a flexibility to make this useful to the city.
- Peter: Is the target setting part of the RFP?
- Bronwyn: Target setting will not be part of this RFP.
- Peter: I would recommend setting the target before the plan is established.
- Susanne: 80% of emissions come from buildings, if that's true, then we are doing well already
- Bronwyn: In a climate action plan we can include things beyond the inventory.
- Lauren: What is the timeframe of the community inventory and the rest?
Bronwyn: We are technically supposed to have the inventory done by November. We will consider this in the proposal. Climate Action Plan wouldn't start until July 1, and we will have to look at how the community inventory is panning out. 3 years is the ultimate deadline.
- Quinton: Don't we have an action plan?
John: It's not updated and net zero is way more updated.
- Bronwyn: Consultant will be given the old climate action plan for context.
- John: Science based target is important.
- Keren: Do other of these cities have a climate action plan? And can they be shared?
Bronwyn: Everything is reported through CDP and CarbONN. We were looking forward to reporting out the municipal inventory. The CDP allows cities to upload and get credit for verification. All gets uploaded to CDP. Compact of Mayors has a list of all cities and all data available on their website.
- Sarah: Does the compact require future assessments to track your progress?

- Bronwyn: There is a commitment to do this periodically. it will be interesting to see how it goes.
- Sarah: If we are committed to doing these, I am wondering how data collection or availability, for the next iteration.
- Bronwyn: A good time to check in about that is when the consultant has developed the methodology and identify data needs and issues.
- John: There might be metrics tracked annually to help gauge progress in the interim.
- Bronwyn: Netzero will likely show up in the inventory. The regional transportation model will not show the more local Cambridge programs, so we should keep the programs going even though GHG emissions
- Bronwyn: Consultant would need to do at least 3 presentations to whoever.
- Susanne: We need the low carbon energy supply to educate community. They need to have been able to demonstrate ability to communicate information to the public.
- Rosalie: state level energy issues impact the City's ability, so is transportation. We should build in stuff that is not directly in our control, but is important to advocate for.
- Bronwyn: The inventory: pushing out stuff beyond your boundary. It's not just about pushing out beyond your boundary, but identifying places we can push beyond our control. We need to get more and more places to partake in inventory
- Paula: what kind of outreach is happening to encourage people to join the Compact?
- Bronwyn: ICLEI, C40 outreach, USDN, CDP

❖ **Member Reports**

- Quinton: Green Cambridge: We are launching another solar discount programs. That resulted in 25 installations last year. We are all set with sun bug, and waiting of the state. We will always partner with the city on their solar program. We are partnering with the city on the Georgetown Energy prize, and launching a tree program (1) street trees, (2) Private individuals; rain barrels Green Cambridge will install them for free. Henrietta Davis and Q are going around to talk about net-zero. Climate Action Conference is coming up on Sunday – Q will be doing a workshop.
 - Climate action business association: policy carbon pricing, and business partnership.
 - Moderating a forum on carbon pricing in April.
- Shawn: April 4, USGBC are hosting an event on social equity issues in the built environment. Just Organizations (gender balance, pay balance, etc.) Director of that program will be presenting, then Shawn will be presenting on LEED social credit. 50 Milk Street (USGBC Office).
 - BASG is doing an environmental justice presentation.
- Rosaline: MSPC Action is looking climate change and violence in the world. Joint working group will be launched about peace, justice and earth. Sophie Robinson
- Paula: Biodiversity for a livable climate (end of April conference). MEES in Worcester, who want to improve their ability to educate. Ecosystem restoration.

❖ **Citizen Comment:**

- Peggy Barnes Lenart: CO₂ emissions from mulch

- John: had sent out a March bulletin item about a BU study on CO2 emissions from urban soil, which was related to mulch!! How much mulch, what kind, what's more toxic?
 - John: There is a net release of CO2 from soil, and they pointed the finger at fertilizer and mulch (BU research). It's a net release, so not taking back in.
- Susanne: Jim Hanson filed a law suit, on 5th amendment grounds, not dealing with cc is destroying life liberty and happiness.

Notes by Olga Faktorovich Allen