

City of Cambridge
Climate Protection Action Committee

Minutes

November 14, 2013

Attendees: Milton Bevington (acting chair); Quinton Zondervan (chair), Betsy Boyle, Peter Crawley, Sarah Hill, Lyn Huckabee, Susy Jones, Ted Live, Tom Page, David Rabkin, Marguerite Reynolds, Keren Schlomy; *staff:* Susanne Rasmussen, Bronwyn Cooke, John Bolduc

Guests: Elizabeth Yarina, Rosalie Anders, Paula Phipps

Milton chaired the meeting.

I. ETP Director's Report:

Likely to announce on Monday that Hubway in Cambridge will go year round!

Net zero task force application period closed on November 12th; 44 applications received for 13 slots. Over one hundred people attended net zero energy buildings presentation by Integral Group this morning at Public Library. Integral has designed several net zero energy buildings all over the world. Quinton: Clarification that Cambridge net zero petition was about net zero emissions, not net zero energy buildings!

First floating bike lane will appear on Ames Street. Actually the parking spots are floating as in marked between bike lane and car lane but not physical barrier between bike lane and parking. This is temporary because of planned housing development; at that point the plan is to build cycle tracks. Broadway bike markings are permanent because not enough space for a separate lane.

Transit committee has been meeting for months, developing strategic plan including funding for public transit. Diverse stakeholder group; making good progress. Green line extension, express bus service and urban ring are some of the priorities.

Sustainability compact interim steering committee focused on governance, funding, organizational structure, how to recruit members, who/what can join, how the work will be structured, annual reporting out, etc.

Kendall Sq. Eco district: grant application submitted to fund staff time, Dec 4 will find out, so fingers crossed! John, Susanne, Bronwyn attended international Eco district summit in Boston: <http://ecodistricts.org/summit/>. Cambridge eco district conversation: stakeholder driven process to achieve triple bottom line: environmental, social and economic sustainability.

II. Recommendations Updates:

1. *Adaptation recommendation*

John: Vulnerability Assessment launched one year ago with Kleinfelder as lead, expert advisory panel, technical advisory committee is the stakeholder group. (More info on CDD website: <http://www.cambridgema.gov/CDD/Projects/Climate/climatechangersilienceandadaptation.aspx>)

Public meetings were planned, the project is still evolving. Several meetings have been conducted on how to do impact analysis, feedback caused adjustments, technical advisory committee is meeting on Dec. 2nd again; meeting will be an update to them and then will include a practice session on rating vulnerability of assets. The city also met with individual stakeholders to get data to do vulnerability analysis.

Public meetings idea was changed to community meetings after consultation with outreach experts. Over three dozen presentations made, more than 800 people reached, still planning to have centralized public meetings to share results. Also conducted a survey and got several hundred results. Trained staff to do presentations, Peter helped with East Cambridge community meeting, others helped with other meetings in their community. We are worried about coastal flooding, originally planned to use SLOSH (model, but then MassDOT obtained funding to use a different model called ADCIRC that will give higher resolution (50 feet) results for studying flooding. Cambridge topography is complex and unlike Boston, we are not right on the ocean, so this new model will help us. Incremental additional funding was obtained to extend the MassDOT modeling to Cambridge. Enormous coordination with Boston water and sewer commission and DOT, five consulting companies, couple of academics and the various government agencies involved makes this a very complex process. Meetings held to align assumptions to be consistent and coordinate how to explain results. Complicated process, and the schedule and budget had to be adjusted to coordinate with DOT, resulting in a six month delay until June 2014, but the City believes suffering this delay was worth it to get access to this better model.

Next public meeting will be held on Dec 11 (tentative), so we are sending notices about that. Bringing community up to date but also will include an interactive component to the meeting.

Susanne: Vulnerability study process we are creating here will be beneficial beyond Cambridge. For example, Washington, D.C. is already looking to our example, and Kleinfelder is doing similar projects for other municipalities/stakeholders.

John: Harvard (University) has created its own climate change committee, and they did a tabletop exercise using Army Corps of Engineers hurricane inundation maps. They are working together with BU, MIT, others on flood risk assessment of the Charles river. Processes are starting to align. The City will share its modeling with universities, others.

Milton: Are we looking at other disaster resiliency beyond flooding? John: yes, temperature, other issues being looked at, but flooding is the big concern. Campus infrastructure is at risk, dorms, etc. after flood happens and cleaned up, then what? Can't reoccupy right away after flood; health inspectors have to certify the building for re-occupancy and there are only a limited number of health inspectors available.

David: What about precipitation, temperature, public health, species migration, etc. are those parts of our study? We discussed all those issues as part of the original recommendation. John: yes, we are going through that process. Intense precipitation on Oxford St. already had flooding problems there, etc.

Susanne: Worth looking at post Sandy report, airbnb (www.airbnb.com) was used to provide temporary housing for example; the sharing revolution transformation in our society is changing how we respond to these disasters.

John: We need to look at other things besides disaster; changing climate will impact building design, outdoors activity. Working on mapping heat vulnerability, tree vulnerability to heat, flooding, etc.

Milton: Yes, basically we are going to have Virginia's climate here.

Quinton: Why are the vulnerability meetings not public? John: they are but we have not tried to get a big crowd for logistical reasons. Some meetings were held at Kleinfelder and they cannot accommodate hundreds of people. Also they need freedom to speak freely, so there is a balance between public engagement and productive meetings. Quinton: It would help to make these meetings more public so that residents can be more aware of the progress.

Quinton: Any planning yet for the second stage of this process, which is to do adaptation planning (based on the vulnerability assessment)? John: No, not yet. We are still figuring out how to do this process.

Susanne: Attended EPA meeting, federal, state need to help communities; Cambridge and Boston are doing this (vulnerability study, adaptation planning), but who else has the resources to do this on their own? Data has not been pulled together, processes not laid out yet. ICLEI did a lot to help start mitigation efforts for municipalities, defining the process to follow, etc., but nothing like that exists yet for adaptation.

2. Plastic bag ban recommendation: Susanne

Ordinance referred to ordinance committee by Councillor Decker but no meetings scheduled to debate it and she is leaving the council. Draft language doesn't do exactly what CPAC recommended on two counts: a) it doesn't include biodegradable bags in the ban and b) it does not require fee for paper bags.

3. Building Energy recommendations: Susanne

Trying to talk with DPW and school dept. about how to respond to city's energy efficiency capital program over the next 3 to 5 years; departmental budgets will be ready in Jan for May vote by city council.

4. Schools (Curriculum) Recommendation: Susanne

City manager has agreed to meet with the superintendent (of schools) about our curriculum recommendation. David & Peter: Just the city manager and superintendent or also involving CPAC members? Susanne: haven't talked to him about that possibility. Can if there is an interest? Yes! David, Peter, Paula, and Quinton express interest.

5. Goals recommendation: Susanne

Bronwyn is putting the finishing touches on our goals document. City Manager will put it on the agenda for city council once we have a new mayor (sometime in early 2014).

No quorum, we are one short, so no vote was taking on approval of minutes.

Lyn: Question on new members. will they be seated by Dec? John: 3 or 4 seats to fill, 15 candidates being interviewed and evaluated, then city manager has to decide. Unlikely to happen by Dec.

III. PACE Presentation

John: Intros our two speakers:

Patrick Grogan is Manager of Underwriting East in Energi's Alternative Energy Solutions Division. Energi provides specialized insurance and risk management services to the energy industry.

Emily Kowtoniuk is Chief of Staff to Senator Brian Joyce of Milton. Senator Joyce is the sponsor of S.177, an act fueling job creation through energy efficiency, which seeks to amend the Massachusetts law on property assessed clean energy programs or PACE.

Emily: PACE: Property Assessed Clean Energy. 31 states at least use it, specifically CA and Connecticut have robust programs. In Massachusetts it was adopted in 2010 along with the Green Communities Act, but only Northampton has opted in and no projects were actually financed so far! Why is it not working? It's not turnkey; municipalities have to do all the work, so many have chosen not to join. Also, it is focused on the residential market, which is well served by other programs like MassSave, but there is a lot of pent up commercial demand. Also original legislation didn't require lender consent, so big lenders decided not to participate!

This bill would reform the program and capitalize on best practices seen in other states, centralize the program administration at the state level where we have expertise, create a turnkey program that makes it easy to participate for municipalities, including underwriting, financing, bonding would all take place at the state level! Also focusing on commercial and industrial sectors which (energy efficiency companies) are booming in Massachusetts with 12% growth this year and higher growth projected for next year! Make it easier for local businesses to thrive in the energy industry; currently growth is limited by access to capital. Trying to reverse that trend! Hope it will unlock capital. Helps to create jobs!

Bill was referred to the joint committee on economic development and emerging technology, public hearing was overwhelmingly positive but the bill has not been reported favorably yet, would like to get it through this session, so encouraging people to reach out to legislators and voicing your support of the bill. Organizing an event in Jan/Feb to talk about PACE and what we can do to advance the legislation.

Keren: Is there opposition (to this bill)? Emily: No; we were expecting it to go to utilities and energy committee but it didn't! Maybe because we oversold the jobs potential it ended up in economic development committee. That committee is not focused on this topic (energy efficiency), so we are suffering from a little bit of an educational disconnect? Make them aware of widespread support so they will report the bill favorably.

Ted: Nonprofits included in this bill (as commercial entities eligible for PACE financing, e.g. churches, etc.)? Emily: Yes!

Peter: Do we need PACE or can we go ahead on our own to bond this type of work (energy efficiency upgrades and deep energy retrofits for commercial clients as opposed to residential)? Emily: Yes,

municipalities could do it on their own. Patrick: Yes, Florida is organized more like that, but there is a lot of competition there about who controls which district (as in who issues the bonds).

John: Microbonds for financing (since individual projects could be smaller than traditionally bonded projects like e.g. building a new school)? Emily: Yes, or the state could aggregate several projects together and then bond that.

Milton: How many commercial lenders have participated? Patrick: Eight approved in Connecticut. People's United has financed one project. Milton: Pretty much zero! Died in Berkeley because financial institutions not interested. Seeding it? Green bank funded with rate payer money. Emily: We tried to put PACE reform in the jobs bill and use flow of SBC (???) funds, and we got tremendous pushback from utilities and others. So here we created a DOER credit enhancement (What is that???). Milton: will the state (Massachusetts) use its credit to float these bonds? Are these taxable revenue bonds? Emily: Don't know, great question for MassDevelopment.

Susanne: Connecticut news (reads from her smartphone): 59 towns participating, \$7 million closed, \$13 million planned. Milton: yes but public benefits fund help with that.

Lyn: Commercial HEAT loan relatively new, developed at same time as PACE; if that has uptake will it impact (the need for) PACE? Milton: That would use public benefit funds. John: One of the advantages is that PACE goes through property tax. Milton: mortgage owners don't like that!

Quinton: Is there any downside to approving this legislation? If it works it works, if not, too bad, oh well, we tried. John: Right, just another tool, hopefully it will work. Milton: Berkeley never tried again; nothing has happened in the last five years basically (regarding PACE). John: Other CA communities are having success with it.

Keren (from reviewing Emily's handout): The bill says revenue bonds, not general obligation bonds. Milton: That means it is expensive money, no tax advantage!

David: Can we play a follow the money exercise here so we can understand the details?

Walk through by Emily of page 3 from her handout.

Peter: Commercial project bond rates might be cheaper because of government backing (of the bonds) and because the property lien would take precedence over the mortgage lien. Makes the loan safer than a regular mortgage. Also, off balance sheet effect for the borrower (because it gets paid from energy savings, not general business revenues), so allows them to take it on as additional debt (over and above what shareholders might be comfortable with).

Quinton: But there is risk if the energy savings are less than anticipated?

Patrick: Energi provides insurance for energy production guarantees! If there is a shortfall, our insurance policy would pay for the difference. Backed by Hanover reinsurance company. Helped to get financial institutions and property owners comfortable with these guarantees.

Milton: How do you calculate premium and rates (on these insurance policies)? Patrick: 2% to 5% premium of the guaranteed savings up front, allows the full term to be protected. Also allows loss

payees on the policy. Our customer is the ESCO (Energy Savings Company, i.e. the company paying for the retrofit and getting repaid from the energy savings), not the property owner.

John: So who do you insure in the PACE market? Patrick: we haven't done any PACE deals yet. Recently we did a large fuel cell project: 14.9 mW, \$17 million guarantee! Also we've done solar production and energy efficiency (ESCOs) guarantees throughout the USA.

John: PACE more useful for smaller business (compared to large businesses who generally have more access to capital)? Emily: We are hoping everyone will take advantage.

Milton: Why do we need PACE? You (addressing Patrick, i.e. Energi) have a great product (by insuring the risk, giving comfort to the lenders). If a bank wanted to loan the money they would just do it. PACE bond lien on the property is just a gimmick! Patrick: We like all these financing mechanisms that will help get these projects done!

Quinton: Yes, it means more money for you :-)

David: So the main thing with PACE is that the obligation sticks to the property, not the property owner, correct? Emily: Yes.

Committee thanks our presenters!

IV. Community Aggregation

Susanne: Peregrine presentation last month. Useful to remind people of those options; not result of bidding, these are just sample possibilities from Paul's (last month's presenter from Peregrine) experience. He thought we could get 100% renewable for the same price as current basic service rate, but only 4% of that would be new (i.e. from renewable energy installations installed after 1997). 25% new option would cost 2.5 cents per kWh more than current basic service rate.

I went to MAPC meeting with city electrician and purchasing department about existing aggregations: Lunenburg in Central Mass; they got destroyed by tornado and hated their utility so they wanted to part ways with them. Cape Light Compact, Attorney General's office and DOER were also there. They all said you cannot consistently buy cheaper energy through aggregation (for complicated reasons not going to explain now). Most communities are in suspension because they can't beat the regular price. Lunenburg and vast majority of communities have not done this (aggregation) to obtain green power (i.e. primary motivation was to save money). Taking on the demand side programming is a huge undertaking (optional aspect of community aggregation to manage energy efficiency funding from electricity rate payments).

Less than 1% of 200,000 (community aggregation) customers have opted into green power program. My opinion: We are not going to stimulate growth in renewable energy through a similarly priced product as basic service (because it would not involve much new renewable energy). And it would have to be an opt out program (otherwise very few people would participate).

Discussion about benefits vs costs of aggregation. NStar Green was brought up. It's an overpriced product that is rapidly losing appeal.

Quinton pointed out that Mass Energy Consumer Alliance provides 100% New England NEW Wind power at 2.5 cents per Kwh extra today: <http://www.massenergy.org/renewable-energy>. So not much point in offering an opt in program to compete with that, but opt out program is worthwhile even at 4% new renewable because if other communities follow suite will create demand pressure for more renewable energy on the grid.

Susanne: That is 4% of 30% (percent of electricity use in Cambridge that is basic service) so just over 1% of total electricity would be from new renewable sources. Quinton: But why does that matter? Even if it is 50 Kw it would be worth it because every little bit of demand helps to signal that we want more supply!

Milton: But what is the ROI on effort and administrative costs?

Question was raised on whether administrative cost is included in Paul's estimate (aggregator, i.e. city of Cambridge would charge the rate payer for the administrative overhead of the community aggregation program). If the admin cost is additional, may not be worth it to pursue community aggregation?

Milton: We may need more discussion; you (CPAC) might be asked to vote on a recommendation at next month's meeting.

V. Future Meetings

December: Mayor Davis

January: EcoDistrict Planning, Bronwyn and Susanne - Mostly Kendall Sq.

Rest of proposed schedule is on the record.

Keren: Is vulnerability assessment update as a meeting topic on our calendar? John: No. But we would loop the committee back in when there is significant progress. Also separate public meetings will be held. Also Peter is on the technical advisory committee. The report won't be ready by March meeting (which is planned to be on emergency planning). This schedule is flexible and can be adjusted.

Peter: Question for Mayor Davis: Sustainability compact seems to be outside the rest of the city processes and existing committees for dealing with climate change. How can we make sure these different structures remain connected? Are citizen/residents expected to be participants in the sustainability compact.

David: What is sustainability compact trying to accomplish exactly and how is that going to work? How will its success be measured? Milton: What is the vision for the next two years? Five years? John: it's about collaborating in our sustainability efforts. How to do that is TBD, yes, no formula yet for how to do that. There seems to be a need to bring together city and institutions and companies here.

Susanne: This is a new process and we are still working out the details. for example, annual report from the sustainability compact. How do you do that, we are still trying to figure that out.

Meeting adjourns.

Notes by Quinton Zondervan