

City of Cambridge

CLIMATE PROTECTION ACTION COMMITTEE

Minutes

May 10, 2018

City Hall Annex

Attendees: Melissa Chan (chair), Olga Factorovich (vice chair), Tom Chase (secretary), Rosalie Anders, Peter Crawley, Keith Giamportone, Brian Goldberg, Ted Live, Anthony Michetti, Lauren Miller, Christopher Nielson, Paula Phipps, David Rabkin, Keren Schlomy, William Zamparelli; *staff:* Bronwyn Cooke, John Bolduc, Seth Federspiel

Guests: Nathalie Wallace

Approval of Minutes

- April 2018 Minutes approved

ETP Director Report

- Consultant hired to evaluate EV charging station strategy across public and private property
- Capital funding approved in DPW budget to install 3-5 charging stations
- Eversource to provide funding to communities within I-495 belt for EV stations
- Stakeholder process started for addressing underperforming buildings from BEUDO
- Engagement and planning process started to develop Port neighborhood-scale resiliency plan
- City submitted application to Bloomberg Philanthropies public art challenge—a climate change-themed project in partnership with Medford, Somerville, Brookline and MAPC to install markers showing flood levels—to be reached in the future
- Grant application being prepared for the State of MA Municipal Vulnerability Assessment Program to finalize preparedness strategies (i.e. shade structures; public communication facilities; neighborhood resiliency hub pilot)
- BEUDO annual reporting deadline was May 1st, appx 65% of qualifying buildings have submitted reports. Staff will continue to collect reports until July.

Cambridge Low Carbon Energy Supply Strategy (LCES)

- LCES started in fall 2016 with goal to develop an energy strategy that transforms current energy supply system into a de-carbonized system. Today, majority of City energy demand is from heating needs, with majority sourced by natural gas (which drives nearly half of the City's GHG emissions by source). The Strategy process as follows:
 - 3 Scenarios emerged from a working group process compared to the Business as usual (BAU) –
 - BAU - mainly natural gas: includes projected energy efficiency gains from Net Zero Action Plan

- 1) Individual Electrification: Maximize use of heat pumps powered by solar—though this requires influx of electricity from beyond on-site capacity and current grid
 - 2) District Energy Electrification: shared thermal system of water source heat pumps, large electric boilers. Less energy for heating than scenario 1
 - 3) District Heating and Cooling: biomass heat boilers and/or combined heat and power.
- Analysis Findings
 - CO2 emissions: Scenario 1, 2 and 3 are lower in CO2 than BAU with scenario 3 as the lowest
 - SO2 emissions: Scenario 3 is significantly higher than 1 and 2, as well as BAU
 - PM2.5 emissions: Scenario 1 and 2 are lower than BAU while Scenario 3 is 5 times higher than BAU
 - CapEx Costs: Scenario 1 and 2 are much higher than BAU due to high infrastructure costs of new equipment and infrastructure
- Key Conclusions
 - Decarbonization will require importing energy from outside of Cambridge
 - District energy is a key mechanism needed, regardless of fuel source
 - A combination of approaches will be required over time
 - A regional stakeholder group is essential for addressing key questions and barriers in a coordinated manner
- Next Steps
 - City to work with MAPC to explore hot water system feasibility
 - Ramboll to study district energy system sizing for Alewife
 - City to promote electrification in less-dense area with rooftop solar deployment
 - City to engage regional partners to address and answer key questions
 - CPAC could play a role in helping the City develop a Net Zero Action Plan measurement and verification criteria that would include LCESS
 - John Bolduc to circulate a copy of the LCESS report to CPAC members

CPAC Working Groups

- City staff to identify specific needs where CPAC working group input could be particularly helpful
- CPAC members discussed a range of criteria for determining topic(s) and needs for working group engagement, including:
 - How can a working group be most valuable to the City staff's work?
 - What are City staff needs for additional technical input?
 - What gaps do CPAC members note in city climate-related studies and strategies?
- Next steps include:
 - City staff to help identify opportunities for where and how CPAC members can broaden engagement throughout City activities
 - CPAC members to identify lessons learned from past working group exercises
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Member Reports

- Rosalie notes that Poor People's Campaign

Notes by Brian Goldberg

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