# Getting to Net Zero Task Force

# March 5 2014 Meeting Notes

**Present Task Force Members**: Jane Carbone, Caitriona Cooke, Barun Singh, Quinton Zondervan, Joseph Maguire, Tom Sieniewicz, Julie Newman, Shawn Hesse, Paul Lyons, Heather Henriksen

CDD Staff: Iram Farooq, Susanne Rasmussen, John Bolduc, Ellen Kokinda

City Councilors' Staff: Mike Connolly, John Andreo

Consultants: Dave Ramslie, Rachel Moscovich, George Metzger, Paul Gromer

About 13 members of the public were present.

## **Welcome & Introductions**

#### **Consultant Team**

Coordinating Consultant/Client Liaison/Strategic Policy Direction
Dave Ramslie, Integral Group
Rachel Moscovich, Integral Group

<u>Buildings, Energy, and Policy Advice</u> Paul Gromer, Peregrine Energy Group

<u>Architectural Advice and Research</u> George Metzger, HMFH Architects

<u>Facilitation and Working Group Liaison</u>
Barbra Batshalom, Sustainable Performance Institute

Energy Modeling and Analysis
To be confirmed

**Economic Impact Analysis** 

To be confirmed

# **Summary from January 28 Meeting**

Susanne Rasmussen, Director of Environmental & Transportation Planning, highlighted the themes from the first Getting to Net Zero Task Force meeting:

- Be ambitious
- Establish a clear mission, vision, and deliverables
- Coordinate with other groups working on related topics so that the work is not redundant (Climate Protection Action Committee, Compact for a Sustainable Future, Kendall Square EcoDistrict)

- Commitment to identify early action items/ early recommendations
- The Net Zero Task Force is focusing on building emissions not water, not vehicles. Focusing on building emissions is key in Cambridge because buildings are majority of emissions (80%)
- Start with a strong vision and work backwards
- Balance environmental and economic concerns we do not want to lose our innovation economy in Cambridge

# **Proposed Work Plan [see slide 4]**

**Dave Ramslie, Integral Group**, presented the proposed work plan for the Net Zero Task Force. Integral Group works with airports, universities, cities, and utilities. He discussed how do get from the first meeting to a comprehensive set of recommendations:

- Inputting information Generate long list of ideas and actions; At some point there will be enough information that the group will have to prioritize the information, and then narrow it down to clear recommendations
- Working Group workshops will be facilitated by Barbra Batshalom
- Early on get stakeholder input
  - o Expanding to online presence and idea generation
  - o Public events and lectures
  - Leverage the expertise in community
- Submit early action items
- Integral Group consultants will be developing a series of short primers that will act as a common lexicon for working groups
- Sharing Best Practices deep emissions targets tools, programs, and incentives from other cities to support a common understanding
- Working Groups will feed recommendations to the Task Force and the Task Force will come together to determine alignment and develop packages of solutions
- Consultants will analyze the packages and strategies; this will be a prioritization exercise
  - o Testing the options to determine possible reductions in energy use
  - Stakeholder analysis

## **Task Force Member Comments/Responses to Proposed Work Plan**

- Have the consultants looked into other states' Net Zero panels and recommendations? (such as California or the Armed Forces) How might these two examples apply to Cambridge? It is not necessary to reinvent the wheel, not a unique solution
- Net Zero is end goal we need to start bounding the conversation and make stronger recommendations moving forward

## **Rachel Moscovich, Integral Group** discussed the Best Practices Report:

- Integral Group will provide the City and Task Force a best practices report addressing initiatives in 8 other North American and European cities with emphasis on their setting NZ targets
- Not all of the case studies are exactly alike; each have slightly different approaches to setting targets, i.e. carbon neutral goals, energy reduction, NZ buildings

#### **Cambridge Building Stock: Questions to address**

- What kinds of buildings exist in Cambridge?
- What are the possible renewable energy solutions?
- What are possible local or district solutions?
- Are there solutions outside of Cambridge?

# Lessons learned from other cities & trends and success factors

- Requires a comprehensive approach not one tool, but it is key to use a set of tools
- Requires measurable and achievable targets in order to then work backwards
- Engagement –elements of success include capacity building, incentives, engaging homeowners and landlords, leadership
- Cities' success is most always complemented by state level climate change; Cities only have so much jurisdiction- rely on partnerships and leverage efforts
- Stakeholder committees and Task Forces are key
- Advice to City staff engage other city departments
- Pilot programs test new initiatives and scale up citywide
- Remain ambitious as long as the Task Force develops long list, then it can address what can we achieve realistically

#### See Slide 6

Matrix of Cities Review

Show a variety of approaches, buildings, net renewable supply, citywide; NYC – like Cambridge 80% come from buildings

- How did you determine precedent cities?
  - Dave Ramslie response: cities taking aggressive stances
- Did you look at Lancaster, CA?

#### See Slide 7

Highlighted cities: Vancouver, San Francisco, Fort Collins, CO

Fort Collins – Smart Grid core

• City owned utility; this is an obvious advantage for Fort Collins

## **Task Force Member Comments/Responses to Case Studies**

- There are problems with having a smart grid distributed district energy versus centralized system; cogeneration concerns and energy pricing concerns
- Hydro in Vancouver is a lot easier than in Cambridge
- California's goal is all new residential to be NZ
- Benchmarking useful measurements per capita, per square foot, comparisons
  - o Carbon intensity per square foot is a good measurement
- Utilities use a Byzantine standard even with what the incentives that utilities do offer, we will
  never get to Net Zero without their support
- What research and data- rationale were used to capture these targets and goals?
- Not all the useful data is at our disposal; one idea for an early action item is the Building Energy Disclosure that the City is already engaged in

- Another early action item might be to get endorsements from the Task Force to go from LEED Silver to LEED Gold; the City currently requires LEED Silver
- Something that might be helpful to include in the Best Practices Report is a summary of what tools and incentives ARE actually available to the City of Cambridge
- It will include Cambridge Policies and programs, but there is also the question of what levers does the City/Task force have
- It is important to note that some of what we are discussing are just current limitations; future technology and innovations may change how we think and plan
- Another idea for an early action item is that the stretch code is up for revision- we can try to influence – currently open for public comment
  - o The City will be holding a meeting to talk about stretch code
  - State policy going in right direction- ratcheting that up in the past we have influenced stretch code policies and we could piggy back on state policy
- Endorsing energy code more ambitious for RECs
- PlaNYC- universities in alignment; help raise/recognize impact; this is only a small component of Fort Collins - the more we understand implications of research the more helpful
- If you don't control own building code don't despair; one city has experimented with innovation zoning down-zoned can earn density back if 100% participation rate; By laws energy modeling around it

**Dave Ramslie, Integral Group** discussed always looking for common tools and themes for cities to use that they could then use to identify a series of actions to affect energy use reductions.

- Info and Transparency measure
- Financing tools- those tools and removal of barriers that allow new options and solutions
- Regulation and incentives- should be incentivizing future case scenario
- Finally code compliance happening average code compliance 75%; Some cases of 0%- Oregon, code compliance 100%
  - Cambridge has some of the most intensive building inspectors

#### **Task Force Member Comments**

- 10-12 times changing the air in laboratories; Concerned that science buildings will be attacked; however, there are some things that can be done to labs
- Insulation is a factor in building performance
- It is important to make sure if they want different types of buildings; laboratories are going to fail a lot of people don't recognize this about laboratories
- Energy disclosure we work with PlaNYC other uses for data good point that lab buildings higher proportioned – do the work they need to do
- To clarify, the Task Force is aiming for net zero community-wide not building by building
  - Some types of buildings advantaged to achieve net zero
  - There is so much good that comes from laboratory buildings; envelope versus what is in the buildings

**Dave Ramslie Proposed Revised Working Groups** with the rationale that the proposed groups focus on tools that are common to all Net Zero plans. During the January meeting, the idea was that working groups would be organized by building type, but this is not necessarily the best use of collective expertise. If the Task Force instead develops a series of tools, then there is a collective variety of expertise. Dave proposed structuring working groups based on what the final work plan could look like.

The key is to define buckets of actions and strategies, and then measure and analyze how to quantify energy savings, which will then be put into models by the consultants.

Example: Carbon Neutral Airport outside of Vancouver

- Currently 81% of the way to Net Zero
- Ambitious 2020 target; there are certain limits to operations
- Also includes RECs or offsets; 10 year commitment to RECs
- There will still be a gap to get to net zero (23%)
- Acknowledgement of revisiting the plan every 5 years

# **Proposed Working Groups**

- Education and engagement –
- Financing tools and Incentives- how do you start investing in building stock?
- Energy Supply and Offsets
- Regulation and Planning Approaches

### **Task Force Comments on the Proposed Working Groups**

- How do we use these groups to determine early proposals for April?
- The most realistic, achievable early action items are:
  - o the building energy disclosure; 1) tweaks needed refinements for it
  - o stretch code positive impact on 1<sup>st</sup> version; more robust going forward
  - NSTAR- potential multi-family pilot; overcoming barriers at least advanced by April Agreement NSTAR and City
- NZ rhetoric captured imagination; it is key to articulate ways it is important as a committee
- People feel under siege in real estate or laboratories
- Committee address fears and we've missed the boat a little demonstration communityimportance of changing behavior and impact – we have on the planet – carefully articulated and communicated or lack credibility
- Dave Ramslie response to start the process we will try to get working Groups together asap
- Concern the process has no room to make meaningful; A lot of work that went into the petition process; let us create deliverables early on
- We should set up a carbon-based property tax what's a limitation and what is feasible it would be great to benchmark every building of the city if we want to do something like that
- There are a lot of tools at hand that we have power over versus pie in the sky if seeking new powers it takes longer
  - o Instead we should focus good sustainable for other cities dreaming can we do of what we can do
  - Use tools available to us
  - o This is the reason we have inspectors model building code inspectors in the country
- What are the opportunities without getting new tools?
- Confusing goals with recommendations include process to anything we can evaluate quickly to consider – recommend quickly
- There are some things that the Task Force can propose that might not be available or feasible now, but that does not have to stop the group from putting ideas out there
- Another idea would be to propose a 5th working groups things achievable to reality and then a dreamers working group that comes up with visionary ideas to help establish our vision?

- Range of goals in purview- just want to make sure early actions in April besides the ones currently proposed as early action items
- Carbon offset purchasing this is what conversation about offsets
- The group will have to collectively consider carbon offsets- depending on target year- bridging;
   collective opinion RECs not necessarily at front end if we understand magnitude

#### **Working Groups:**

Each Task Force member is to pick their preference for a working group (can choose more than one). The working groups will be populated by both Task force members, and others. We will need to broaden the membership. Please let city staff know your recommendations for other working group members. Integral Group will provide a starter kit for each working group including the types of action, framework for a 90 minute-2hour workshop.

- Financing tools
  - o PACE programs
  - o local carbon market
- Education & Engagement
  - o not a clean division between working groups how to use information or industry real road retraining of contractors and homebuilders - Public engagement strategy early recommendation review of public engagement strategy
- Energy supply district scale systems opportunities both on and off-site and way off site

# **Setting a Target Date**

Dave also proposed setting a target date for analysis purposes, and suggested that the reference point be set for the year 2030. He clarified that there could be multiple targets; multiple time frames; multiple buildings in order to compensate for the differences in laboratories and new construction. The purpose of this 2030 date is to use this target to frame analysis and conversations.

## **Task Force comments on Target Date**

- Don't see a problem with using 2030 as a starting point
- This date mirrors existing targets in city
- I agree with 2030 but the Task Force will also have to figure out when we expect to be at Zero we will need to discuss that

#### **Public Comment**

- Andrew- Portland Oregon, not included in the Best Practices report, why not?

   Fort Collins serves as EcoDistrict
  - Dave Response: We chose Fort Collins as an example of district energy smartgrid;
     more similar climate
- John Pitkin- powers that we have concern about carbon and how it relates to the carbon budget. What climate stabilization requires is not on the graph
- What's the best way to get early action items In terms of zoning petition, there were complexities that weren't fully addressed
- Should recommend zoning change to support LEED Silver Plus for special permit opposition there
- Please give us a year of dates to work around schedule