Proposals Submitted for Consideration by the Cambridge Climate Congress

January 23, 2010

Drafted on December 27, 2009
Revised on January 7, 2010, Last revised on January 21, 2010

Preface

The Drafting Committee respectfully submits the following report for consideration by the Climate Congress on January 23, 2010. It is organized in two sections. Part A proposes a process and structure for carrying forward the work of the Climate Congress to build a stronger local response to the climate emergency. Part B summarizes the ideas put forward in the first session of the Climate Congress on December 12, 2009. Following the second session of the Congress, the Drafting Committee will prepare a final version of the suggestions described in Part B. This final report will incorporate comments and other input received from delegates, organizations, and others.

The Drafting Committee proposes that these two sections be considered by the Congress. If approved by the Congress, they will be submitted to the City Council.

The members of the Drafting Committee are: Joanna Barth, Michael Corbett, Sam Crawford, Martin Driggs, Robin Finnegan, Joanna Herlihy, Judy Johnson, Sayem Khan, Laurie Leyshon, Lesley Phillips, John Pitkin, Minka vanBeuzekom, and Quinton Zondervan.

Contents

Part A: Proposal for Climate Emergency Response 3

Part B: Recommendations for Action by the City Council 5

I. Government Leadership & Policy 6

a. Municipal Leadership 6

1. Establish Measurable Greenhouse Gas Emissions Reduction Goals 6
2. Learn from Best Practices, Lead by Example 7
3. Develop an Adaptation Plan 7
4. Promote Environmental Justice 7

b. Policy 8

5. Implement Life Cycle Accounting 8
6. Leverage Procurements & Investments 8
7. Create a Sustainable Cambridge 8
8. Advocate for a Carbon Tax 9
9. Establish Tax- and Fee-based Incentives 9

II. Community Involvement & Support 9

10. Support a Community Awareness & Action Campaign 9
11. Promote a Climate Emergency Awareness Campaign 10
12. Educate for Sustainability & Resilience 10

III. Green Infrastructure 11

a. Buildings, Energy, & Efficiency 11

13. Reduce Commercial & Residential Building Energy Consumption 11
14. Improve Building Codes 12
15. Expand Relationships with Utility Companies 12
16. Expand Use of Alternative Energy 13
17. Promote Energy Efficiency to Businesses 13

b. Transportation 13

18. Create a more Pedestrian- and Bike-Friendly City 13
19. Reduce Vehicles & Parking 14
20. Increase Use of Public Transportation 15

c. Resource Management 15

21. Develop a Holistic Land Use Strategy 15
22. Protect and Promote Urban Forestry 16
23. Improve Water Management 16
24. Reduce Waste & Improve Waste Management 17
25. Support and Promote Sustainable Food 17

d. Green Economy 18

26. Promote Sustainability & Localization 18
27. Establish a Rating & Certification System for Businesses 19
28. Provide Financial Incentives for Businesses 19
29. Create and Promote Green Jobs 20

Part A: Proposal for Climate Emergency Response

Background

This proposal recommends a process and structure for carrying forward the work of the Climate Congress to respond to the climate emergency. This emergency is created by the growth of local greenhouse gas emissions despite the urgent warnings of climate scientists that substantial reductions are needed in order to reduce the risk of disastrous changes to our climate and despite the City's best efforts to reduce local emissions, including the 2002 Climate Protection Plan and the work of the Climate Protection Action Committee.

This proposal is made in the belief that an effective local response is, if anything, made more urgent by so far inadequate global agreements and federal policies for emission reductions. It is made in the belief that our City should lead by example. And it is made with the knowledge that the City government is directly responsible for only a small fraction of local greenhouse gas emissions.

It calls for the City to establish a process and mechanisms to stimulate climate protection actions by residents, businesses, and institutions.

Proposal

1. Create a **Climate Emergency Response Board** (CERB).

2. **Purpose**: The CERB is charged with promoting, coordinating, and monitoring response to the climate emergency by all sectors of Cambridge, including individuals, households, voluntary membership organizations, businesses, institutions, property owners, and the city government through reduction of local greenhouse gas emissions and other means.

3. **Proposals**: In developing a plan of action for these purposes, the CERB is asked to consider the substantive proposals included herewith in Section B (*Proposed Recommendations for Action by the City Council*). The Congress recommends the following proposals for immediate attention in 2010:

> 1. Establish annual GHG emissions goals and improved annual measurements to track progress toward these goals.
> 3. Develop an adaptation plan.
> 10/11. Initiate a community awareness and action campaign.
> 29. Develop a proposal to create municipal jobs that address the climate emergency (i.e. "green jobs").

4. **Membership**: The CERB will consist of community representatives, relevant city department heads, and a community outreach coordinator (7).

a. The CERB should be relatively small and the community representatives to the CERB should be nominated by organizations from different broad sectors of the community, including neighborhood groups, environmental organizations, businesses, and institutions, and be appointed by the City Manager.
b. The precise relationship between the CERB and Climate Protection Action Committee needs to be figured out.

5. **Annual Congress**: The CERB would report their progress at an annual Climate Congress organized jointly by citizens and the Mayor.

6. **Funding**: Funds would be raised to pay for the work of the CERB through existing and new funding sources possibly including new funding sources proposed in Section B.

7. **Community Outreach Coordinator**: A new full-time position to be created for the purpose of promoting and coordinating community response to the climate emergency and conducting awareness campaigns.

8. **Amendments to City Goals**: The City should formally adopt as goals: sustainability, environmental justice, and developing resilience to expected effects of climate change in physical, social, and economic structure of the city.

Part B: Proposed Recommendations for Action by the City Council

Preface

This section summarizes and describes the proposals made at the first session of the Climate Congress on December 12, 2009. These are presented in the form of recommendations to the City Council to be deliberated by the delegates on January 23d. From these proposals it is anticipated that the Congress will choose a sub-set of high-priority recommendations to the City Council. In considering how to prioritize these recommendations it is suggested that delegates consider this question: What recommendations are the most important for addressing the climate emergency in 2010 and beyond? Specifically, which of these recommendations should the city government of Cambridge work on in 2010? Keep in mind that the city government's primary job is running the city and that currently available resources to work on climate change issues specifically are scarce.

It should be understood that the city will need to raise or reallocate the funds to carry out additional action on climate change beyond what is already in the budget, though this is not always stated in the proposals.

It should also be understood that Cambridge cannot solve climate change on its own and that none of these actions alone or in the aggregate will solve climate change. However, the aim is to make Cambridge a leader on Climate Change policy by walking the walk. In addition there are recommendations to advocate for policy changes at the state and federal and international levels which again can help move the world towards a solution.

The climate Congress was convened by Mayor Denise Simmons, endorsed by the City Council and supported by the City Manager and was asked to make recommendations to the City Council on specific actions the government could and should take to address the climate emergency. There are many good ideas that were raised that people can and should work on independently from the government, and one or more new citizen's action groups may well coalesce from the Congress. However, the proposals are framed as recommendations to the city government via the City Council.

These proposals and any recommendations made from them are an expression of the Congress's priorities for city government action on climate change. Given the limited time spent on developing these recommendations and given that they were developed by residents with no particular expertise or qualifications in city government, these recommendations may not be directly translatable into government action. They should be interpreted as guidelines for government action. Actual implementation of these recommendations will undoubtedly require much more detailed work and analysis by city staff. That is why it is suggested that these recommendations be prioritized to focus scarce resources on the most important actions to be taken.

I. Government Leadership & Policy

a. Municipal Leadership

1. Establish Measurable Greenhouse Gas Emissions Reduction Goals

The Climate Congress recommends that:

a) The City Council submit a request to the city manager for an explanation as to why the 2010 goal was missed. The purpose of the explanation is to learn from it, not to point fingers at anyone. The explanation should identify the sources of emissions most responsible for the total increase. The analysis should consider which emission reduction efforts were most effective, which were least effective, and the reasons for success or failure.

b) The council allocate, or request that the city manager allocates, reasonable additional funding to improve Cambridge's ability to measure our greenhouse gas emissions. While this cannot be done with exact precision and will never be perfect, there are specific areas of measurement already known to the city staff that could be improved upon with sufficient time and funding allocated to the task. While the city should not spend a disproportionate amount of resources on measuring emissions, it is nonetheless necessary to intensify that activity so that we have a better sense of what areas of emissions to focus on in order to reduce them more effectively.

c) The City Council request that the city manager set measurable greenhouse gas emissions reduction goals on an annual basis that can be tracked and reported upon to the populace similar to an Annual Carbon Budget. While a single comprehensive measurement of the city's greenhouse gas emissions on an annual basis is not currently feasible it is nonetheless useful and necessary to set goals that can be measured and reported on annually. For example, the city could set a goal to reduce total residential electricity consumption by some amount. This particular contribution to greenhouse gas emissions can be measured and specific steps can be taken to reduce it without inconveniencing the residential population, thus making it an easy target for emissions reductions. Other contributors to the city's greenhouse gas emissions can be measured now or in the future and, when this is the case, the city should set achievable annual goals for reducing them.

d) The city government work to include, to the best of its ability, a full life cycle accounting of emissions in its estimate of Cambridge's GHG emissions. This would, for example, include the emissions that result from growing the food and manufacturing the products that are imported into Cambridge. It is noted that in practice this is an extremely arduous and difficult task and that it would take many years for the city to develop full life cycle accounting of GHG emissions, and that it would always be largely based on estimates and assumptions as actual measurement is nearly impossible. Nonetheless it may be possible to account for the life cycle emissions of some goods (e.g. construction materials) based on estimates provided by, for example, industry or academia.

e) The City Council set a long-term goal (20 years or more) of turning Cambridge into a net emissions free, zero waste producing city with measurable milestone goals along the way to allow us to track our progress.

2. Learn from Best Practices, Lead by Example

The Climate Congress recommends that:

a) The city assign additional resources to studying and learning from other communities that are more advanced in their response to climate change. For example, the Climate Action Leadership Group consists of 40 cities worldwide that have committed to serious climate change plans. Also refer to the Kansas City Green Impact Zone.

b) The city, in conjunction with local universities and other organizations, such as the Cambridge Energy Alliance, establish a clearing house or knowledge base of strategies, policies and implementation plans that can serve as a resource to other communities globally as they look for ways to respond to climate change. To the extent that this is already happening within other organizations, e.g. ICLEI, the city should devote additional resources to contribute to this process.

c) The City Council declare it an explicit policy for Cambridge to become a leader on climate change action and to set an example for other communities around the world through our actions.

d) The city implement additional sustainable practices in its own operations and dedicate additional resources to working with the broader Cambridge community to turn Cambridge into a credible example to other communities.

3. Develop an Adaptation Plan

The Climate Congress recommends that:

a) The city perform a vulnerability assessment to determine what vulnerabilities exist in the city that would threaten the population and the infrastructure given the most recent climate change predictions for Cambridge in the short and long term.

b) The city develop an adaptation plan to address the determined vulnerabilities. Such a plan would include, for example:

(i) making adequate preparations in its emergency preparedness planning to address these potential vulnerabilities.

(ii) making structural changes to address these vulnerabilities where possible and necessary.

(iii) looking for 'win-win' and 'no or low-cost' adaptation measures that can be implemented immediately to address vulnerabilities and build community resilience. In particular, adaptation measures should be sought out that also contribute to emissions reductions and/or address social and environmental injustice.

4. Promote Environmental Justice

The Climate Congress recommends that all municipal polices related to climate change be evaluated with disadvantaged communities in mind so that:

a) Policies can be adjusted to help, where possible, people in disadvantaged situations improve their lives.

b) Policies do not place an additional burden on people who are already struggling to make ends meet. For example, when increasing certain fees like parking, a mechanism should be in place for people to get exemptions from the increase due to hardship.

c) New policies are created to explicitly include and give incentives to disadvantaged communities to participate in the community's efforts to become more sustainable such as providing childcare or stipends during public meetings.

b. Policy

5. Implement Life Cycle Accounting

The Climate Congress recommends that:

a) The city adopt, where possible, life cycle accounting practices when considering major purchases, using them to more accurately compare the impacts of different options.

b) The city adopt, where possible, life cycle accounting practices when making major planning and investment decisions, using them to more fully understand the impacts of proposals.

c) The city leverage the state's purchasing program as effectively as possible and advocate with the state to improve upon it.

6. Leverage Procurements & Investments

The Climate Congress recommends that:

a) The city, when possible, give preference to suppliers meeting reasonable 'sustainable practices' criteria, such as credible recycling programs, alternate energy useage and the purchasing of legitimate and verified carbon offsets. As a priority, these criteria should take the full life cycle of the product or service being procured into account.

b) Where the city lacks the necessary legal authority to exert such preferences, it attempts to obtain them as justified by the city's declaration of a climate emergency in accordance with the law.

7. Create a Sustainable Cambridge

Many ideas emerged at the Climate Congress meeting in December around creating a sustainable city in the future. These are visionary ideas and would require more time and fleshing out before we could implement them. They are captured here as a recommendation to explore this vision of a sustainable city in the not so distant future:

a) Build infrastructure for recharging electric cars.

b) Allow only zero or negative net-energy consuming buildings to be constructed in the city.

c) Provide 100% renewable energy to citizens and business in twenty years.

d) Institute a carbon tax of some kind to fund the transition to a sustainable Cambridge. Such a tax would be progressive, and could be voluntary at first. To the extent that Cambridge lacks the legal authority to levy a carbon tax it would need to obtain such authority or institute the tax in a creative way (e.g. as a supplementary property tax).

8. Advocate for a Carbon Tax

The Climate Congress recommends that:

a) The City Council institute a voluntary carbon tax in the city of Cambridge as a way to demonstrate Cambridge residents' commitment to the concept. Any funds raised by the tax would be used to fund climate action through the city's budget.

b) The city advocate for a carbon tax at the state and federal levels.

c) The city attempt to tax carbon-intensive transport or usage inside the city.

9. Establish Tax- and Fee-based Incentives

The Climate Congress recommends that the city alter its fee and taxing schedule to provide more incentives for sustainability and greater penalties for inefficient legacy systems, including:

a) Changes so that renters and landlords have an incentive to make efficiency upgrades to buildings. For example:

> (i) make the property tax component of the rent explicit, as is done in some commercial leases already, and providing a property tax discount for certain improvements to the building, which can be shared with the renters.
>
> (ii) allow landlords to share in the energy bill savings from putting in more efficient heating/cooling systems by, for example, charging the renters a temporary surcharge for the improved system that transfers some but not all of the gains from the improvement to the landlord. Note: CEA is doing work in this area also.

b) Provide "energy performance" mortgages to help property owners finance efficiency improvements and renewable installations.

c) Impose a tax on certain packaging materials being used excessively.

d) Tax plastic and paper bags provided by grocery stores and retailers at checkout.

e) Advocate for a refund on all bottles and cans at the State level.

II. Community Involvement & Support

10. Support a Community Awareness & Action Campaign

The Climate Congress recommends that:

a) The city support a community climate awareness/action campaign, led by citizens in consultation with relevant city staff and other competent persons, by providing: access to use of city communication media, access to city buildings, including community schools and youth centers, for programming such as lectures, workshops, potluck suppers and other meetings, and support of city staff related to the above.

b) The city establish a program to offer funding/grants and other support to community initiatives related to energy efficiency and sustainable living,

c) The city create competitions that reward climate action. For example, provide a reward for an annual neighborhood competition to reduce greenhouse gas emissions by offering as prize to the winning neighborhood a significant improvement of public facilities, with neighborhood participation in its planning, and smaller prizes for energy efficiency competitions.

d) The city translate and print materials relating to energy efficiency and sustainable practices into Portuguese, Spanish, French, Chinese and other languages deemed appropriate.

11. Promote a Climate Emergency Awareness Campaign

The Climate Congress recommends to the City Council:

That it direct the City Manager to initiate a municipal campaign to raise awareness of the climate emergency among Cambridge residents, people who work or study in Cambridge, and local businesses, informing them of the warnings of climate scientists, the City's recognition of the dangers of climate change, the need for prompt action at all levels and by everyone, the existence of the City's Climate Protection Plan, other measures by the City, sources of information about climate science, and local resources for individual and community action.

This campaign should have as its goal to reach 100% of the population by the end of 2010 and using appropriate media and channels of communication, including direct mail, as necessary to reach all segments of the population, including non-English speaking communities. It is suggested (1) that this campaign could greatly benefit from the expertise and resources of public health staff as used in campaigns against smoking and to prevent child abuse and (2) that it be centered around a simple statement about the climate emergency, similar in length and directness to the Surgeon General's warning about tobacco.

12. Educate for Sustainability & Resilience

The Climate Congress recommends that:

a) The city initiate a series of workshops to train residents in techniques for energy auditing, home weatherization and provide materials for low income residents,

b) The city train residents to help others by assessing energy bills, explaining possible energy efficiency measures and the incentives and rebates available,

c) The city provide programs for young people in after school programs at community schools or youth centers in which they can learn simple energy auditing techniques, how to install programmable thermostats, the basics of recycling and composting and other techniques along with ideas for earning remuneration by using these skills,

d) The city provide full funding for coordination of the City Sprouts program which, using hundreds of volunteers, offers valuable experiential learning at all Cambridge elementary schools and could serve as a model to other cities,

e) The city fund coordination of the Green Streets program,

f) The city orient workforce development programs for youth in preparation for the jobs of the future--sustainable practices, initiating the projected Green Jobs Corps as rapidly as possibly and assigning as many as possible of the 2010 Mayor's Youth Summer Employment Program workers to jobs related to energy efficiency and sustainable practices,

g) The city direct unemployed residents into training programs related to energy efficiency and sustainable practices,

h) The city investigate the feasibility of establishing sister city projects for youth with residents of less developed countries and islands which are experiencing significant impacts of climate change.

III. Green Infrastructure

a. Buildings, Energy, & Efficiency

13. Reduce Commercial & Residential Building Energy Consumption

The Climate Congress recommends that the City:

a) Create an ongoing city funded and run workshop to train and enable people to weatherize their homes. This could be done by appropriating funding to Cambridge's Home Energy Efficiency Team (HEET). The workshop could provide the equipment and supplies needed for weatherization.

b) The workshop could also train volunteers in each area to evaluate energy use in residences and have them knock on their neighbors' doors to offer free energy-efficiency evaluations. The volunteers could be trained to determine if the energy bills in a residence are high per square foot, as well as explain the perks of CFLs, programmable thermostats, low flow showerheads, etc. Volunteers could also connect the residents with rebate programs and contractors. Efficiency Vermont has a good program like this that can be duplicated. This would cost little and allow for social marketing at a neighborhood level, as well as introduce neighbors to one another thus increasing community. In low-income areas, the volunteers could be paid.

c) Start a 'Temperate Zone' program in which buildings are neither heated nor cooled during the fall and spring when the climate does not demand it, saving resources. The program could possibly start small and pick a month that would be easy to get agreement on like May or June.

d) Offer incentives to citizens for reducing their energy consumption, as well as incentives for using alternative sources of energy such as solar, wind and geothermal.

e) Work with landlords to offer incentives to increase their property's energy efficiency. One example is to start a Energy Star Refrigerator replacement program where tenants pay the estimated monthly energy savings to their landlords so the landlord gets paid back for the cost of the refrigerator. Create a 0% interest loans for participating landlords.

f) Start a Rental Unit Energy Efficiency Certification program that will give a rating to an efficient home so that it can be rented for higher rent (since the monthly energy bills will be lower).

g) Require energy intensive commercial buildings (such as laboratories) to increase their energy efficiency. This could be done through energy audits conducted by organizations like the Cambridge Energy Alliance. Additionally, Biotech/Green Councils could be formed where CEOs can talk about actions to save money and improve communications with facilities managers

h) Institute an energy audit service in which a thermal imaging scanner is used to show business and homeowners how much energy their buildings are leaking. This could be done by appropriating money to fund either HEET, or, the Cambridge Energy Alliance (CEA) with the funding to purchase a scanner.

i) Add additional energy efficiency requirements to the city's LEED requirement, and provide incentives for new buildings to meet LEED standards.

j) Have Kill-aWatt meters available for loan to citizens through the library.

k) Create Cambridge city signs that homeowners could put up declaring their energy bills per year. The signs would go up in front of the house (like historical building markers) saying, for example, "This house's annual energy bill is $1,033 for 4 occupants and 2,000 sq feet of space. Ask me how I've done it." Most people who would do this would have very low energy bills and thus would inspire others to figure out how to do the same. It could make the efficient homeowners proud and reward them for their low bills.

14. Improve Building Codes

The Climate Congress recommends that the City:

a) Encourage building energy efficiency: For example, add additional energy efficiency requirements to the city's LEED requirement, and provide incentives for new buildings to use LEED standards. NOTE: While building codes are set at the state level in Massachusetts, limiting what Cambridge can do alone, though not what it can advocate at the state level.

b) Develop a set of performance based standards for buildings to promote ongoing efficient operations. Such standards can be set on electricity, water, oil, and natural gas consumption per square foot for commercial and residential buildings.

c) Encourage investment in renewable energy. For example, adopt Berkeley, California's innovative PACE financing model for renewable energy through tax districts, and require energy audits when homes are sold. NOTE: This would require changes to state law to implement in Cambridge and other Mass. communities.

d) Evaluate the impact of growth. For example, restrict development by placing a moratorium on development, putting more restrictions on the issuing of building permits. NOTE: Assuming that growth will happen anyway, restricting growth in Cambridge could lead to it to being displaced elsewhere where the resulting climate impacts could be even worse.

15. Expand Relationships with Utility Companies

The Climate Congress recommends that the City:

a) Contact NSTAR to see if they will duplicate the Marshfield experiment in Cambridge. In Marshfield Mass., NSTAR worked hard to lower energy use through the free or low-cost installation of efficiency measures and renewables so that a new power plant would not have to be built in the area.

b) Request that NSTAR will feed CFLs and programmable thermostats to Cambridge with the rebate already accounted for in the price, such that the home owner pays $5 - $10 for a thermostat upfront, instead of paying $30 - $40 and then getting back a rebate for $25 several weeks later.

c) Expand the education and outreach utility companies do with bills. They have innovative programs but people don't seem to know about the energy conservation services utility companies are required to give customers as a result of the energy surcharge they collect on our bills.

d) Evaluate what the city could purchase from NSTAR to save the city money in the long term, and reduce energy consumption (for example the street lights and traffic lights that were purchased by the city in the past).

16. Expand Use of Alternative Energy

The Climate Congress recommends that the City promote increased development and deployment of renewable energy in the city. For example:

a) Conduct a solar census in the city to determine south facing solar opportunities and notify the property owners of the opportunity and how to explore it.

b) Promote geothermal, district heating, seasonal storage, solar thermal, and wind energy deployment in the private sector and on municipal property.

c) Purchase renewable energy with Feed In Tariffs. NOTE: Currently this is regulated at the state level.

d) Offer green power incentives. For example, distribute power generation in tandem with zoning regulations and offer relaxations on the rules for those who use green power.

e) Work with NSTAR to make more renewable energy available to customers and to promote its NStar Green program more effectively.

f) Promote the use of flat roofs for solar (where practical) and green roofs.

17. Promote Energy Efficiency to Businesses

The Climate Congress recommends that:

The city reach out to businesses and actively promotes CEA and other options for business to improve their energy efficiency. For example, work with CEA to publish an energy efficiency newsletter that would be sent out to commercial sites that explains what different companies have done about efficiency and how much they have saved. The newsletter could disseminate how-to knowledge and inspire companies to do more. A similar model could be developed to distribute a newsletter to citizens. Both newsletters should be translated into multiple languages.

b. Transportation

18. Create a more Pedestrian- and Bike-Friendly City

The Climate Congress recommends that the City:

a) Encourage walking and biking, as well as giving priority to pedestrians and bikers over vehicles. The city should work to foster a culture of walking and biking.

i) Reduce or eliminate curbside parking, especially on main roads, and create more bike paths.

ii) Increase the number of bike racks.

iii) Establish and promote bike-sharing programs.

iv) Make central shopping areas (Kendall Square, Harvard Square, etc.) pedestrian only, and create pedestrian arcades.

v) Create non-motorized commuter corridors that are dedicated to pedestrians and bikers.

vi) Give priority to low-income residents at the annual police auction of unclaimed bikes.

vii) Make all new development car-free.

b) Ensure the accessibility of sidewalks and bike paths, as well as the safety of pedestrians and bikers.

i) Improve the quality of sidewalks and bike paths, which currently are inadequate in most parts of the city. Fix cracks, and remove snow and ice.

ii) Improve enforcement of existing traffic laws and snow-clearing rules to enhance pedestrian and biker safety.

iii) Reduce or eliminate parking next to bike lanes, as this puts bikers at risk.

19. Reduce Vehicles & Parking

The Climate Congress recommends that the City:

a) Assess the state of its vehicular transportation system, its costs, its inefficiencies, and its contribution to pollution and greenhouse gas emissions. Furthermore, it should determine how to best reallocate funds and reduce the use of personal vehicles, as well as increase walking, biking, and the use of public transportation.

i) Analyze how much city governement spends to subsidize driving through street maintenance, traffic lights, etc., and transfer part of those subsidies toward improving public transportation and sidewalks, creating bike lanes, and promoting shared vehicles (ie. Zipcar) and ownership of hybrid cars.

ii) Monitor gas usage of city vehicles.

iii) Determine how to best minimize idling. For example, reduce "no right turn on red" at intersections.

iv) Assess pedestrian traffic signals and their location.

v) Publicize data about transportation in Cambridge.

vi) In general, the city government should consider how to best reorganize the city's transportation infrastructure over the next several decades to de-emphasize individual car use and invest more into pedestrian, bicycle and public transportation infrastructure.

b) Finance measures to increase walking, biking, and use of public transportation by levying taxes and fees on car owners. For example:

i) Implement congestion pricing to reduce car travel through main arteries and during peak times.

ii) Increase parking meter rates.

iii) Increase the price of residential parking permits, with an annual increase every year for the next 20 years. Charge extra for SUVs and other gas-guzzling vehicles.

iv) Increase the cost of parking tickets.

c) Shift the transportation infrastructure towards more shared transportation modes and away from individual car travel. For example:

i) Eliminate streetside parking in the city. One possibility is to reduce it 5% per year over 20 years.

ii) Better utilize existing centralized parking facilities, as well as creation of new ones, to facilitate the reduction of streetside parking.

iii) Eliminate streetside parking, especially on Massachusetts Avenue, to allow the creation of dedicated bus routes and additional bike lanes.

d) Incentivize car-sharing and fuel efficiency. For example:

i) Create more designated parking for Zipcars and other shared vehicles.

ii) Provide incentives for people to purchase/rent/own alternative fuel vehicles and hybrid cars.

iii) Create a network of free air dispensers for auto tires, and publicize on them the benefit to fuel economy.

iv) Reduce the parking fee in municipal garages for hybrid or compact vehicles.

v) Create an infrastructure for recharging electric cars.

vi) Charge lower residential parking permit fees for hybrid vehicles.

vii) Create a web-based platform for people to find opportunities for ride-sharing.

20. Increase Use of Public Transportation

The Climate Congress recommends that the City:

a) Improve and promote public transportation, making it more efficient and dependable.

i) Create more bus routes.

ii) Create designated bus lanes.

iii) Create a shuttle system for navigating Cambridge.

b) Make public transportation more accessible and affordable.

i) Provide free or subsidized public transportation, especially for city employees.

ii) Provide better support for commuters traveling with bicycles.

c. Resource Management

21. Develop a Holistic Land Use Strategy

The Climate Congress recommends that the City:

a) Create a strategy to promote the optimal integrated usage of open green space. The area of open green spaces in the city should be increased, providing nature preservation for people and animals. For example, the municipal golf courses are a monocultural use of open space and high consumers of fresh water; they should be transformed into public green space.

b) As part of a 'holistic land use strategy', areas of the green space or City owned watershed lands in Lincoln, Lexington and Waltham should be designated as pastureland, since it is highly effective for carbon sequestration and it takes hardly any time to grow. We should allow local farmers to use the

designated areas for grazing to stimulate growth and thus promote more absorption of carbon. This could also create partnership opportunities for the local business and local farmers to provide the city with grass fed meat.

22. Protect and Promote Urban Forestry

The Climate Congress recommends that the City Council:

a) Enact a zoning ordinance for the preservation and protection of all city trees whether public or private.

b) Raise additional funds to protect existing trees and to plant and maintain additional trees throughout the city.

c) Educate residents about urban forestry and encourage gardening.

For example:

(i) The City of Cambridge should ensure that every tree that is cut down is replaced by one of a native species at least five years old, within a one year period.

(ii) The Cambridge Department of Public Works should educate residents and businesses about the need to water public trees in front of their properties.

(iii) The City of Cambridge should plant community gardens on parking garage roofs, in city owned garages and increase rooftop gardens generally.

(iv) The City of Cambridge should encourage individuals and businesses to plant more native trees and reduce lawns .

(v) The City of Cambridge should plant more fruit and nut trees to be harvested by residents.

23. Improve Water Management

The Climate Congress recommends that the City Council:

a) Review the efficiency of our potable water, waste water and storm water management systems (13).

b) Promote the use of green infrastructure, including green roofs and permeable parking lots, driveways and sidewalks, for flood control and to increase the efficiency of the system and water quality (352).

c) Encourage residents to have permeable pavement and driveways, and/or stormwater (e.g. rain barrels) and gray water reuse systems The city could also educate property owners and enforce the law that requires them to take responsibility for water that falls on their land (115).

d) Increase the use of innovative stormwater catchment along streets and parking lots and give developers financial incentives to do so.

e) Install more rain gardens on public and private land instead of directing stormwater to the street drains

24. Reduce Waste & Improve Waste Management

The Climate Congress recommends that the City Council:

a) Reduce consumption and waste. For example:

i) Consider an action plan to reduce consumption and waste in the City.

ii) Ban the production and distribution of plastic bags and bottled water in the City.

b) Promote and provide for easier composting. For example:

i) Provide for the collection of food waste. (302, 329, 186)

ii) Encourage home composting of yard waste. (174, 121)

iii) Conduct composting at multiple sites around the city. (329)

c) Promote and provide for easier recycling. For example:

i) Arrange for single-stream pickup to simplify recycling for residents (269).

ii) Place a well-labeled recycling container next to every trash container on the streets and in other public spaces (268, 73, 244) and increase the size of the blue curbside recycle bins as visual cue to encourage more recycling,

iii) Encourage community recycling achievements at all city and private businesses and post street-by-street residential achievements on the city website (244).

iv) Sponsor regular trips for residents and school groups to our recycling and yard waste composting facilities and our landfills.

d) Promote and provide for easier and safer disposal of e-waste. Provide more opportunities and locations for the separate collection of e-waste, including CFLs and batteries (109, 270, 329), via curbside pick-up or multiple drop-off sites.

25. Support and Promote Sustainable Food

The Climate Congress recommends that the City Council:

a) Encourage and potentially provide opportunities for citizens, community groups and schools to grow more of their own food locally and organically. This encouragement and support could be provided via various mechanisms, including:

i) Supporting the development of more local gardens for individuals, communities, schools and businesses. Both public and private spaces for growing food should be considered such as backyards, green sidewalk areas, parks, and rooftops (e.g. Green Street garage). Existing programs such as "City Sprouts" should be continued and fully funded by the City. The city should also investigate opportunities for a range of food production beyond gardens, including fruit trees and honey via urban bee keeping.

ii) Support community efforts to develop organic gardens by hosting or sponsoring organic gardening education.

iii) Create a fulltime position within the city to manage and support the existing community gardens and search for additional useable land. Duplicate the efforts of Boston Natural Area

Network gardening and food production training programs. (http://www.bostonnatural.org/).

iv) Developing an emergency garden map, surveying the potential for conversion to farmland of every public field and area with soil in Cambridge. This plan would help the city if food production or food transportation became an emergency issue.

b) Encourage citizens, community groups, businesses and schools to buy food that is locally grown when possible, and grown in regional proximity (FL or GA rather than CA, South America or Europe) when the season makes local food production less possible. Encourage purchases of organic or low-pesticide foods when possible. Mechanisms may include:

i) Encourage, and perhaps mandate, Cambridge food providers and retailers to offer local/regional food options (not just produce) when possible.

ii) Enable year-round farmer's markets (for example, at the Lechmere T stop) and/or the development of partnerships with local CSAs that offer local and organic off-season produce from root cellars and regional farms.

iii) Provide incentives for the purchase of local/regionally sourced food.

iv) Institute disincentives for the purchase of non-regional food.

v) Communicate the benefits of buying food that has been produced organically and locally/regionally.

vi) Ensure that food stamps continue to be accepted at current Farmer's Markets

c) Raise awareness and promote action about the connection between food choices and climate change; advocate vegetarianism and veganism as a major part of the Climate Action campaign. Mechanisms may include:

i) Instituting environmental disincentives against meat, especially beef, pork and lamb.

ii) Advising higher levels of government to move towards more organic and sustainable agriculture practices.

iii) Increasing the emphasis on vegetarian and organic foods in government-run programs like the school lunch program and food stamps, and consider setting meat limits for these programs.

iv) Asking/mandating that local restaurants and schools institute "Meatless or Vegan Mondays" to increase community awareness and reduce reliance on meat, dairy and eggs as food sources.

v) Sponsoring and promoting vegetarian cooking classes.

vi) Converting City Council meals to meatless only with limits on dairy.

d. Green Economy

26. Promote Sustainability & Localization

The Climate Congress recommends that the City Council:

a) Value sustainable economic development over economic growth in any relevant political deliberation. In other words, promote policies that will sustain the economy over the long-term, rather than policies that will only provide temporary economic benefit.

b) Implement an economic framework promoting sustainability and the localization of the Cambridge economy through effective policy and incentives. Examples include:

i) Financial incentives for hiring people from local communities, especially residents of Cambridge.

ii) Better enforcement of the policy that anyone with a city contract must hire local individuals.

iii) Special opportunities for local businesses (e.g. subsidies) and special requirements for non-local businesses that will benefit the Cambridge community.

iv) A local currency that will promote local trade and support local businesses. The Berkshire Bucks is an excellent example of such a currency that is flourishing in the Berkshires today. Or reinstate the Cambridge Local First Dollars as a less elaborate system.

27. Establish a Rating & Certification System for Businesses

The Climate Congress recommends that the City Council:

a) Establish a rating and/or certification system that recognizes businesses for sustainable practices and makes consumers aware of these practices. The rating system should include, but not be limited to, categories such as:

i) Building efficiency (performance-based, rather than design-based),

ii) Waste management (materials use, reuse, recycling, composting),

iii) Supply chains (e.g. local and organic foods for restaurants and grocers), and

iv) Worker treatment (e.g. fair wages/benefits).

b) Make the system mandatory and require certain reporting by local businesses. This would not only facilitate the implementation of the rating/certification system, but it would also make it easier to accurately calculate Cambridge's emissions and assess its environmental impact.

c) Information about business practices, ratings, and certification should be made visible and accessible to the public. This includes labels/stickers, which can be used/posted by businesses, as well as web-based resources.

28. Provide Financial Incentives for Businesses

The Climate Congress recommends that the City Council:

a) Provide financial incentives, such as subsidies and loans, to businesses for improving their practices and reducing both direct and life cycle emissions. Potential incentive mechanisms include:

i) Block grants, subsidies, ARRA funding, and/or loans for efficiency upgrades, and

ii) Property-assessed financing to allow the cost of efficiency upgrades to be distributed over time via tax bills.

iii) Create Commercial Green Leases, which offer incentives to landlords for energy efficiency retrofits.

iv) Create a revolving loan fund for efficiency upgrades.

b) Favor local businesses over non-local ones, and provide them with more financial incentives and support. For example, offer greater subsidies for local businesses, or offer micro-loans only to local businesses.

29. Create and Promote Green Jobs

The Climate Congress recommends that the City Council:

a) Work to increase the prevalence of green jobs available within Cambridge. The City Council should work with local businesses to promote clean energy and increase the availability of green jobs.

b) Increase the capacities of Cambridge citizens to perform green jobs. Possible methods of doing so include:

i) Promoting awareness of the availability of green jobs (by, for example, a posting online) and the skills necessary for green jobs (for example stressing to local students the importance of math and science for green technology),

ii) Offering training opportunities, especially for youth and unemployed individuals, and

iii) Offering internship opportunities whereby individuals may gain skills and experience.