

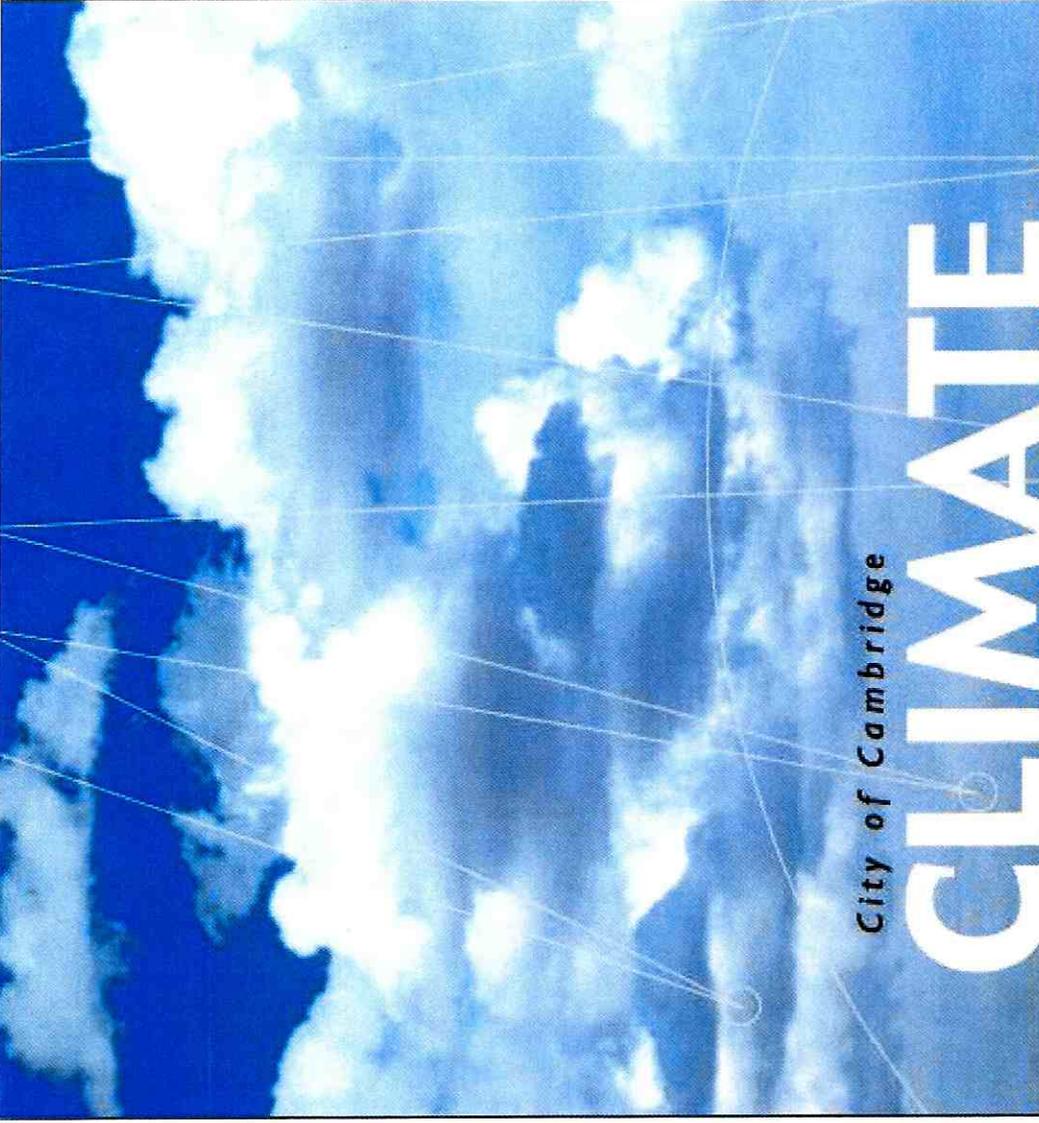
Net Zero Zoning Initiative

The Connolly Petition:

“energy efficient, grid connected building enabled to generate energy from renewable sources to compensate its own energy demand”

Mike Connolly

**Secretary, Association of
Cambridge Neighborhoods
Board Member, Green Cambridge
Campaign Manager, CCFNZB**



City of Cambridge

CLIMATE PROTECTION plan

LOCAL ACTIONS TO REDUCE GREENHOUSE GAS EMISSIONS

Speakers

- Climate Emergency Update Susan Labandibar
- Why Net Zero Buildings & Zoning John Pitkin
- How it works for Cambridge Quinton Zondervan
- Renewable Energy is Affordable Aaron King
- Response to CDD Dennis Carlone
- Net Zero from Denial to Action Will Brownsberger

Susan Labandibar

**President of the Board of
Sustainable Business Network
President of Tech Networks Boston**

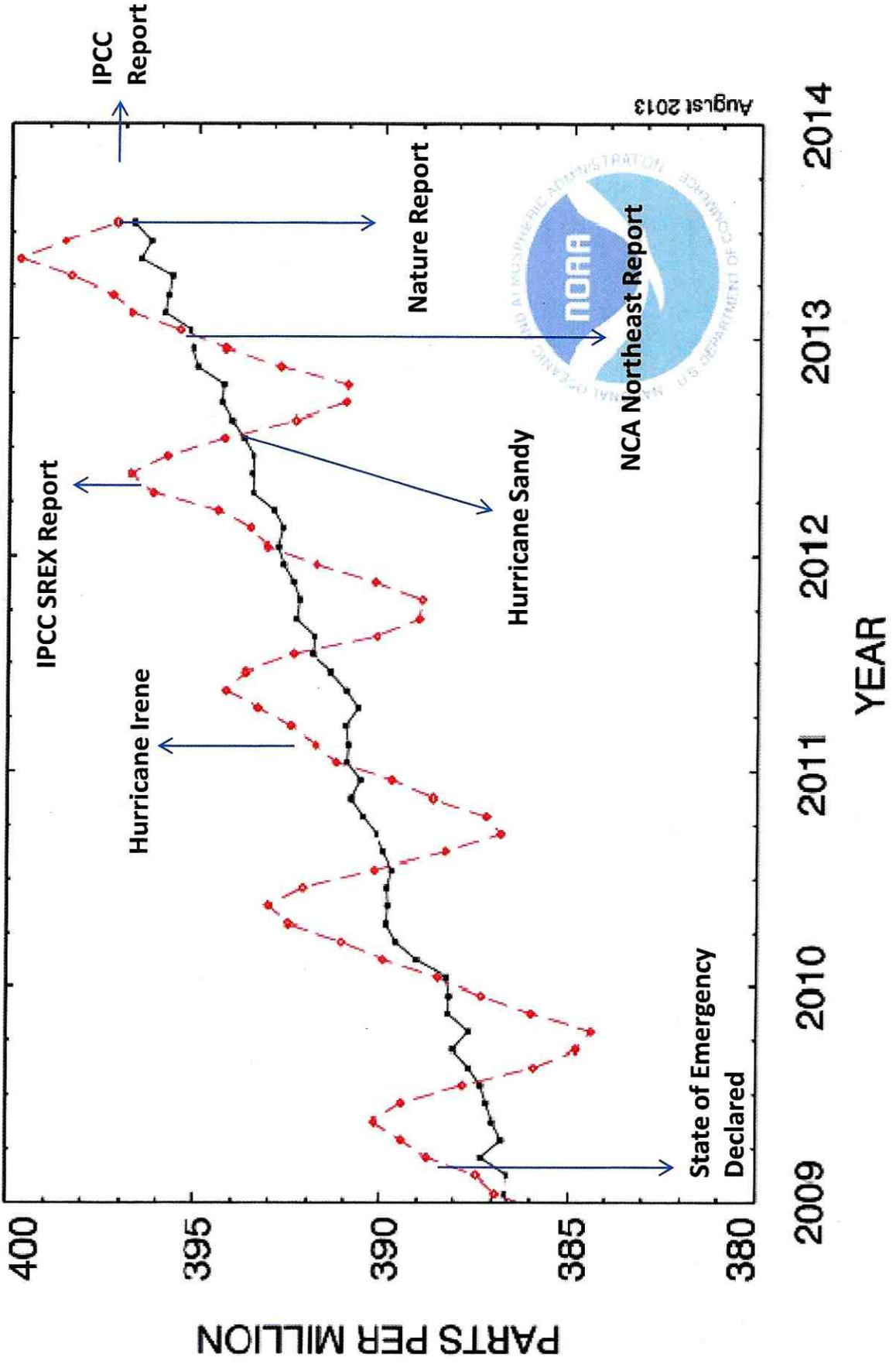
**Member of:
350 Massachusetts
Climate Reality Project
Citizen's Climate Lobby**

Four Years of Inaction



CLIMATE ACTION LIAISON COALITION

RECENT MONTHLY MEAN CO₂ AT MAUNA LOA



August 2013



Why a Net Zero Standard and What the Connolly Petition Does

**John Pitkin
Cambridge Committee for Net Zero Buildings**

Presentation prepared for
The Cambridge Planning Board, August 20, 2013

and

The Cambridge City Council Committee on Ordinances,
August 21, 2013

From rhetoric to reality
Facing the challenges of climate change

Professor Kevin Anderson

Tyndall Centre for Climate Change Research



Presentation to Manchester City Council – Ja

Emission-reduction targets

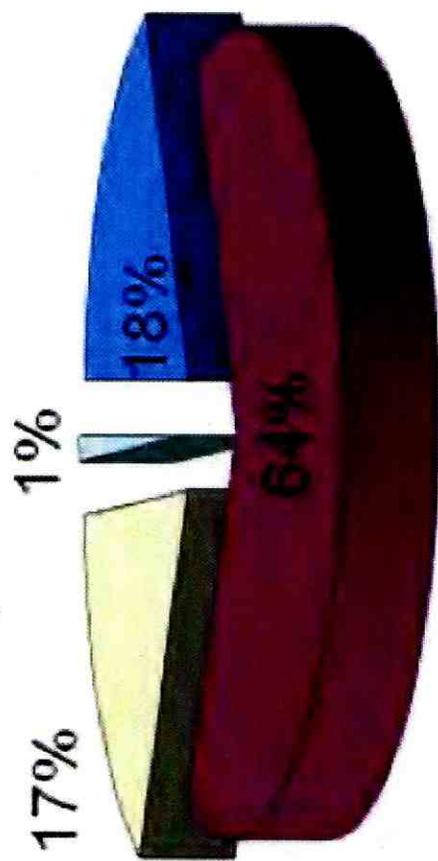
- Long term reduction target of 80% by 2050 (MA, UK, EU)
- CO₂ stays in atmosphere for 100+ years
- **2050 reduction unrelated to avoiding dangerous climate change (2° C)**
- **Cumulative emissions that matter (i.e. carbon budget)**
- *This fundamentally rewrites the chronology of climate change*
 - **from long term gradual reductions**
 - **to urgent and radical reductions.**

The purpose of the Zoning Ordinance defined in Sec. 1.30:

**Ordinance to lessen congestion in the streets;
conserve health; to secure safety from fire, flood,
panic and other danger; ... to conserve the value of
land and buildings, including the conservation of
natural resources and the prevention of blight and
pollution of the environment; ... preserve and
increase the amenities of the City."**

(excerpt)

82% of Cambridge-source emissions are from *buildings*....

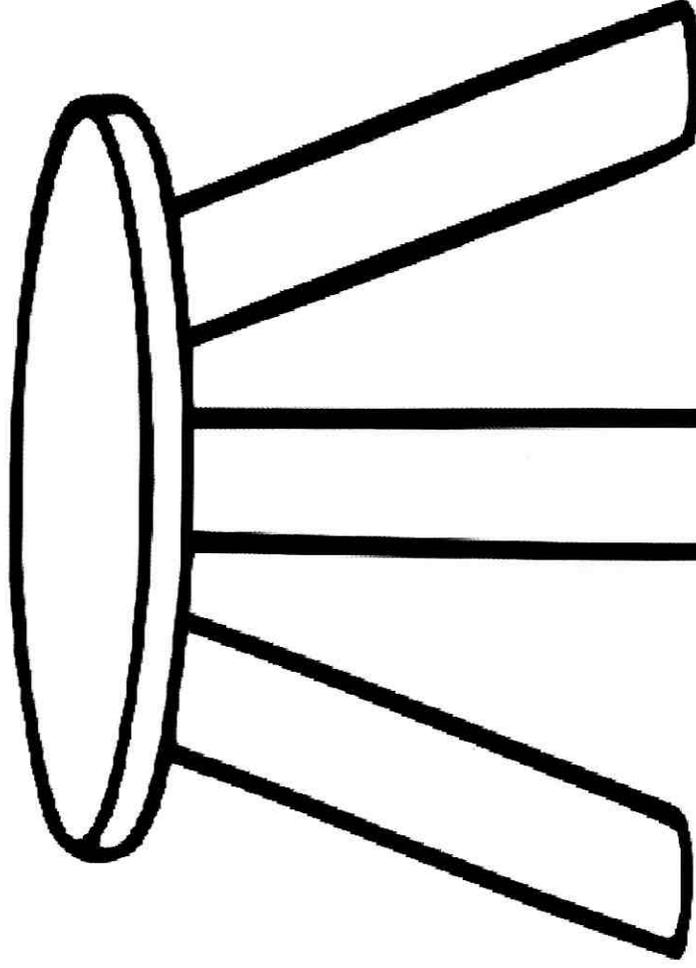


- Residential
- Commercial/Industrial
- Transportation
- Waste

... known for SIX years!

“Towards a Sustainable Future – Cambridge Growth Policy – 2007 Update”
City of Cambridge

A synergistic performance-based standard



1.

Reduce

2.

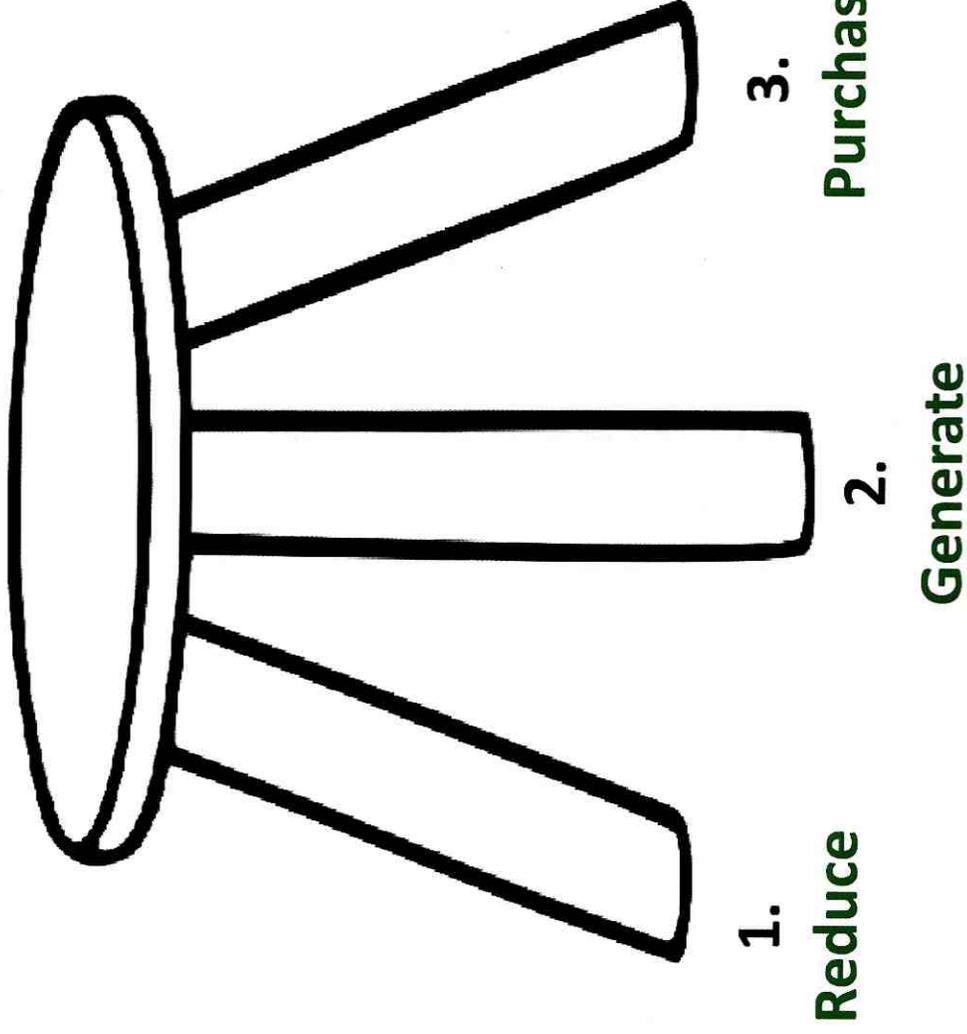
Generate

3.

Purchase

A synergistic performance-based standard

Net zero building emissions



Structure of Amendment

- Purpose: 19.10, 19.21, 19.25, 22.21
 - Expanded Narrative: 19.24, 22.26
- Modification to narrative already required by
LEED silver
- Purchase Renewable Energy: 22.25
 - Report Energy Usage: 22.26.4

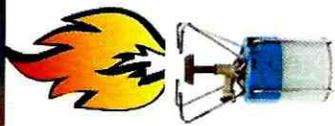
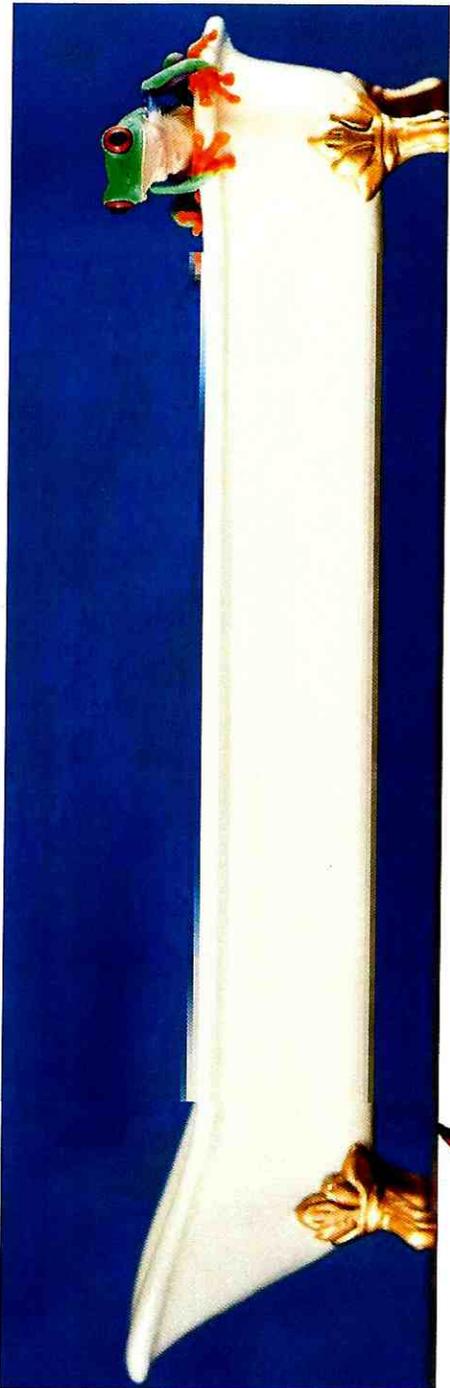
Requirement to Purchase Renewable Energy

Insert the following new section 22.25:

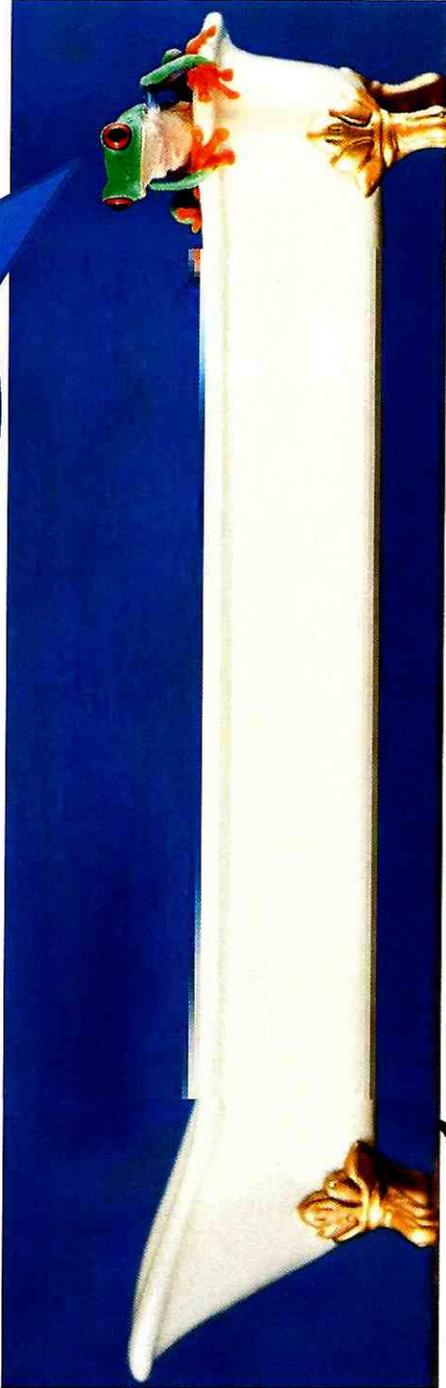
22.25 Requirement. Greenhouse Gas Mitigation Requirement. All new construction or changes in use requiring Project Review Special Permits shall be required to report their energy usage in daily operation on a quarterly basis and **purchase Massachusetts Class I Renewable Energy Credits (RECs) for any portion of such usage that is generated by non-renewable sources (net-zero).**

Detail: Reporting Requirements

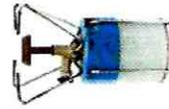
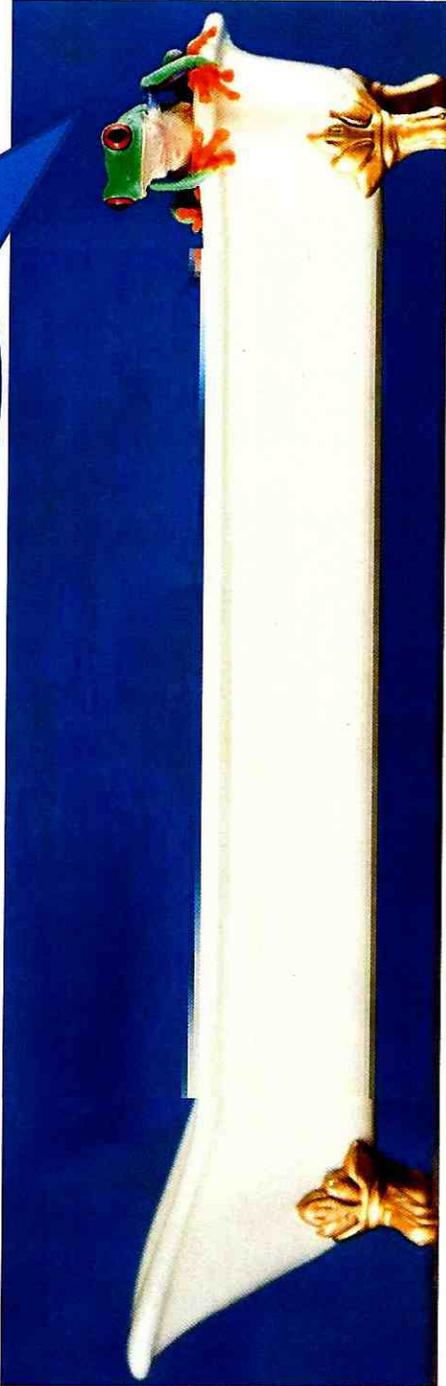
- 22.26.4 Procedures for compliance with the requirement of Section 22.25.
 - **(Total energy used)** All energy consumed by the building operations and the operations of tenants must be accounted for, including emergency back-up generation (actual consumption, not capacity), and energy used for heating/cooling. Non-electrical energy supplied to the building and tenants for heating (e.g. natural gas) shall be tracked separately from electrical energy supplied to the building in appropriate units (e.g. BTU).
 - **(Total on-site energy generation)** All renewable energy generated on-site (including any that is virtual net-metered to others) and renewable energy purchased to supply the common areas of the building (e.g. certified wind or solar energy from a source in or near Massachusetts), is quarterly subtracted from the total energy consumed by the common areas of the building. The building operator to match the remaining balance must purchase Massachusetts Class I RECs. The cost of doing so may be passed on to tenants in a fair (e.g. proportional by square footage) and transparent manner.
 - **(Excess on-site energy generation)** Excess energy generated by the building that is not used by tenants or the building itself can be assigned to other consumers via virtual net metering.
 - **(RECs purchased to off-set any fossil fuel usage)** All non-renewable energy consumed by the tenants must be similarly matched by the tenants purchasing Massachusetts Class I RECs. Tenants must report their compliance to the building operator who reports the building's overall compliance, including tenants compliance, to the city.



It's still
comfortable
here!



Owch. It's
still getting
hotter!! ??



Quinton Zondervan

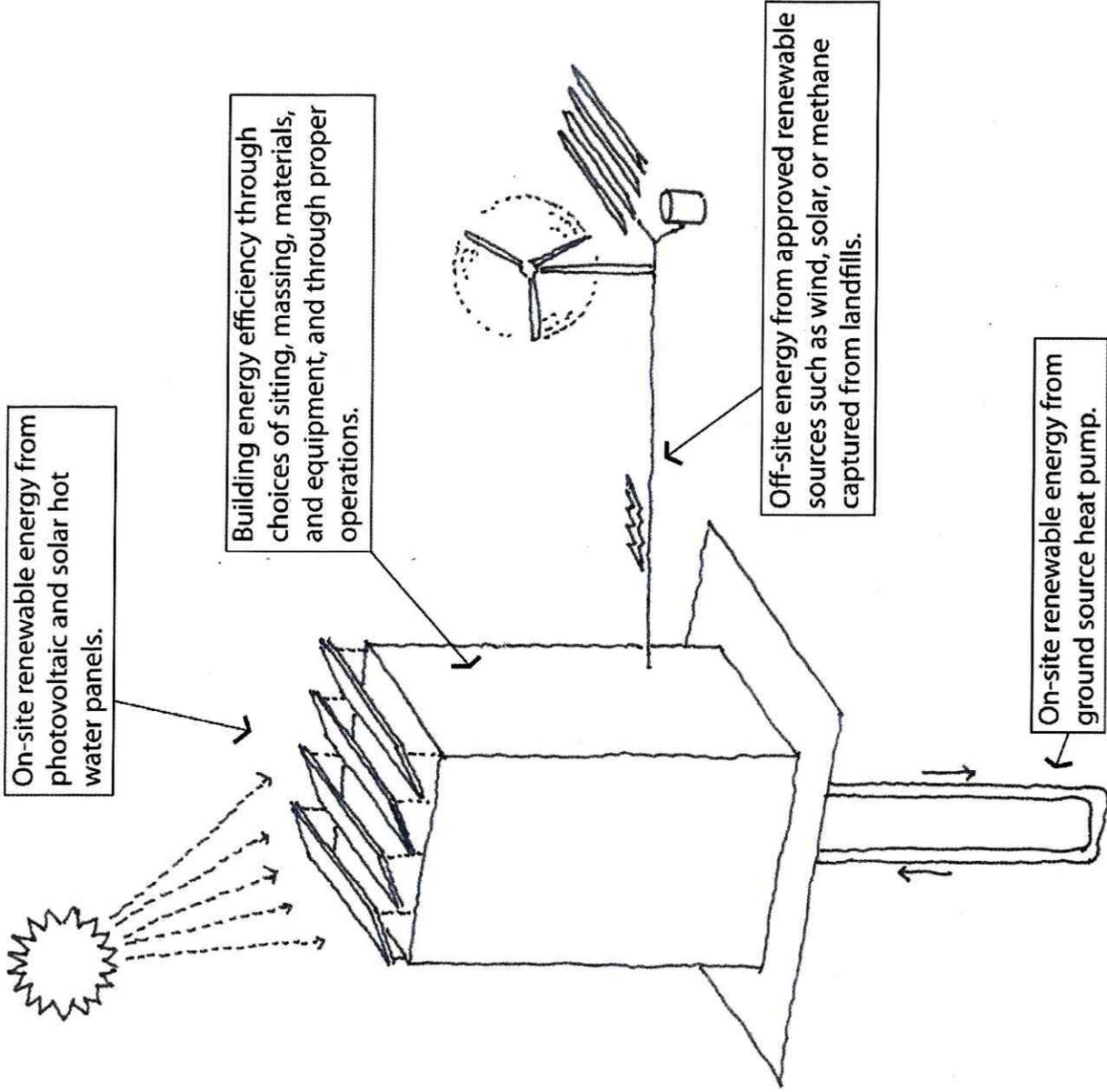
Net Zero Buildings:

**The practical, innovative, sensible,
viable Cambridge way**

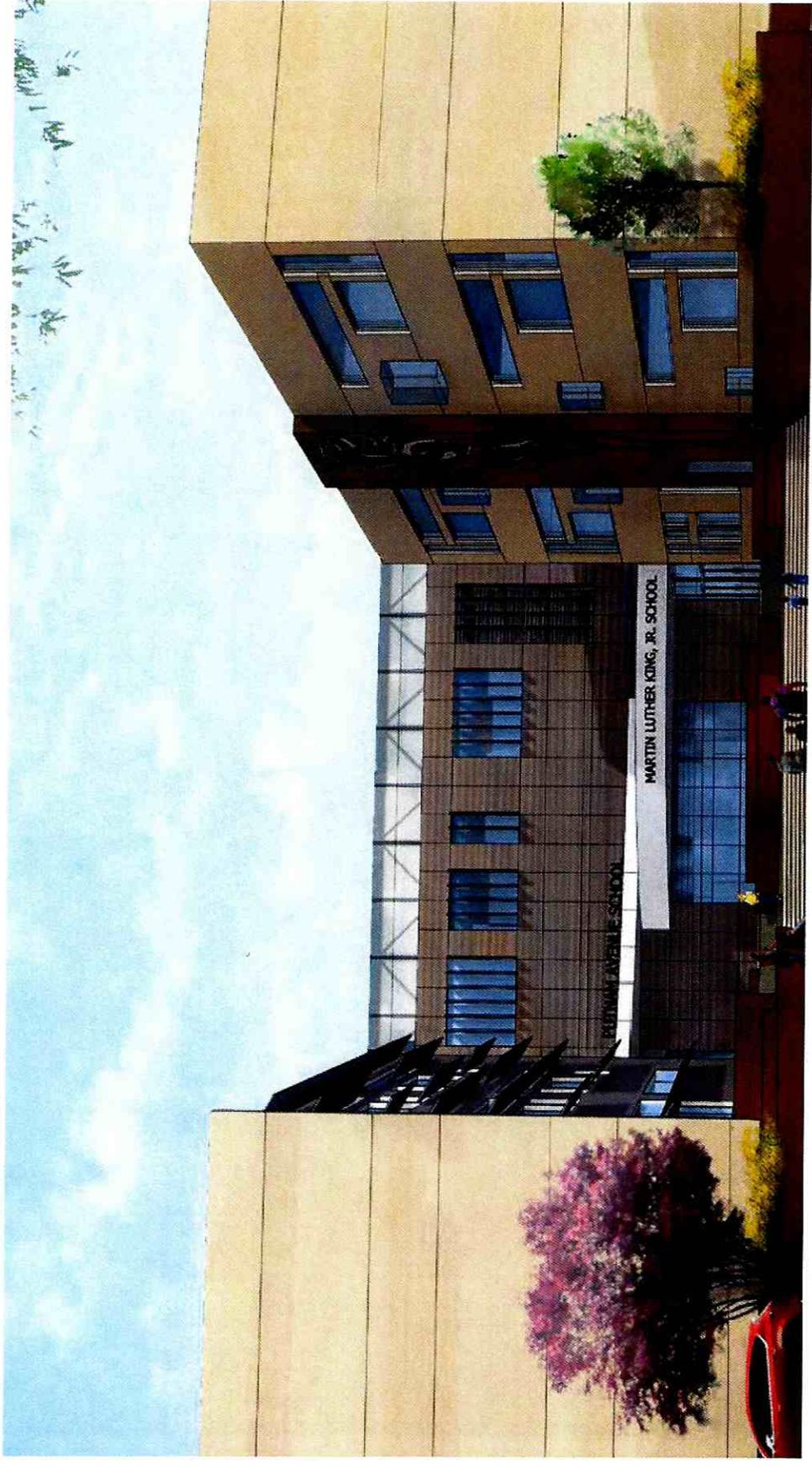
1. Reduce

2. Generate

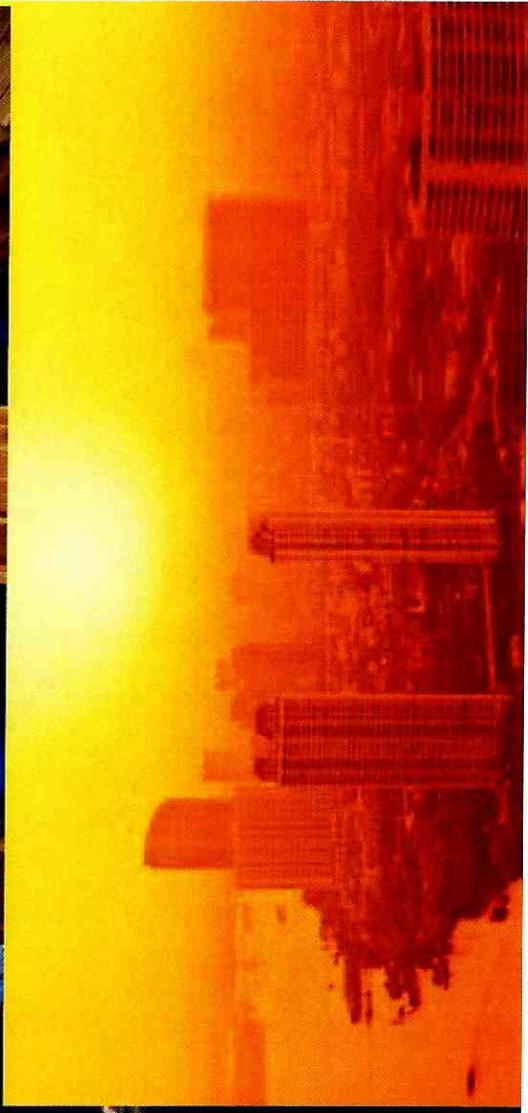
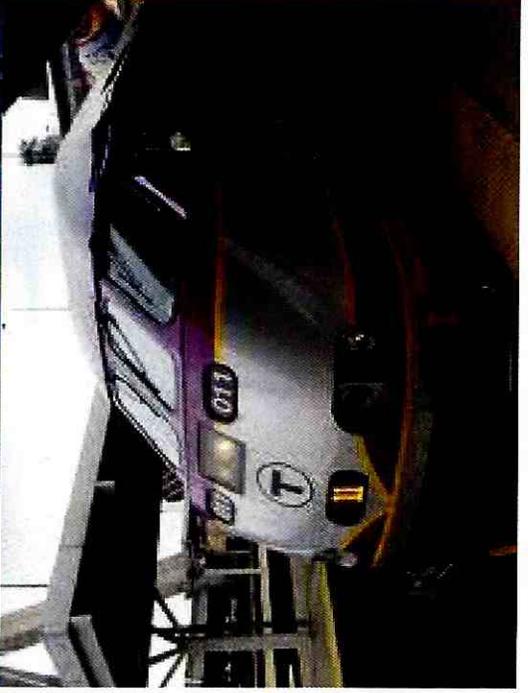
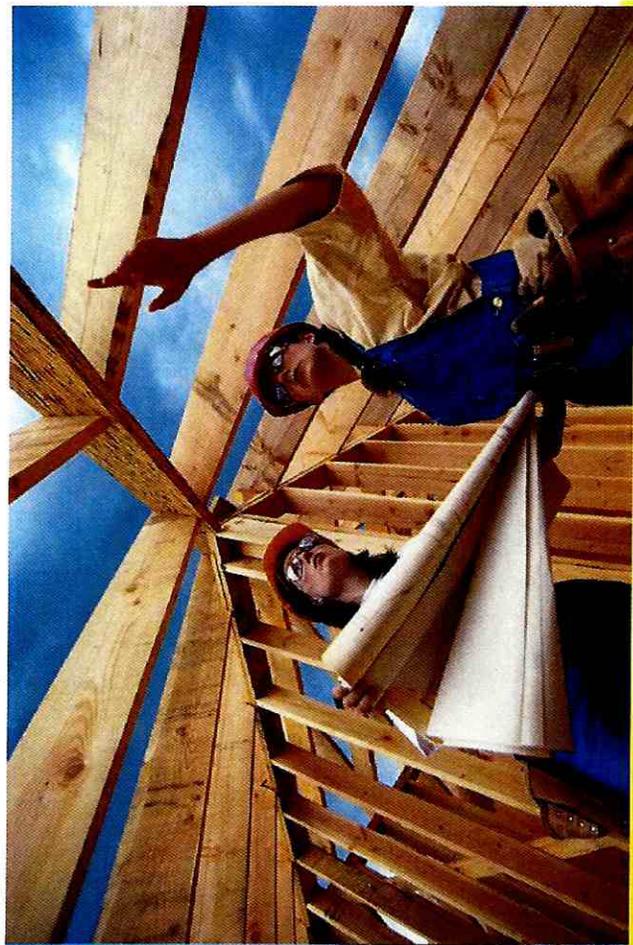
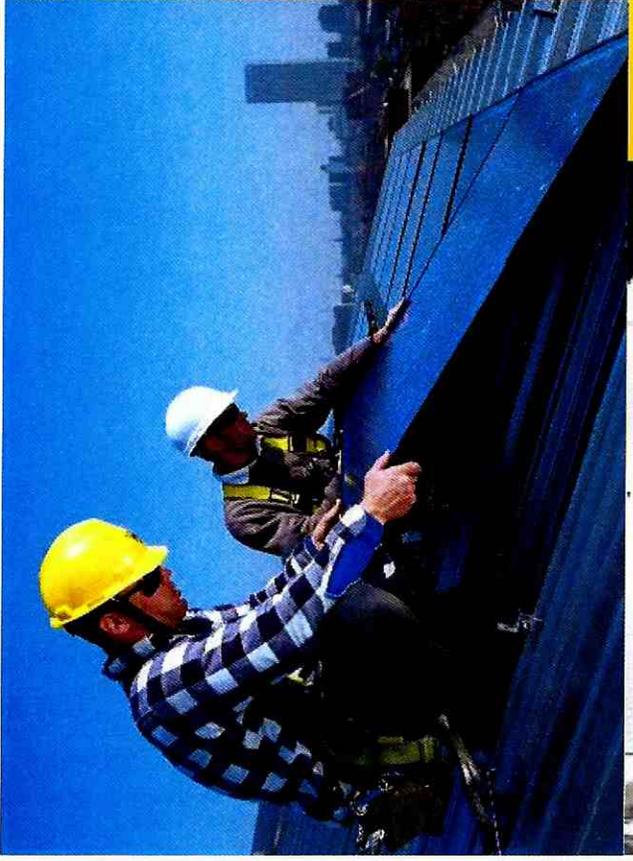
3. Purchase



King School Example



Local Jobs + Economic Opportunity



Aaron King

**Commonwealth of Massachusetts has acted:
separated billing for generation
incentivized production
REC certification**



Genzyme Center

- Green Design Features
 - Passive cooling and heating
 - Natural lighting, using mirrors
 - Green Roof, 20 kW solar capacity
 - Data collection, and reporting
 - Energy use, GHG emissions, air conditions, etc.
 - **100% of the purchased electricity renewable sources**

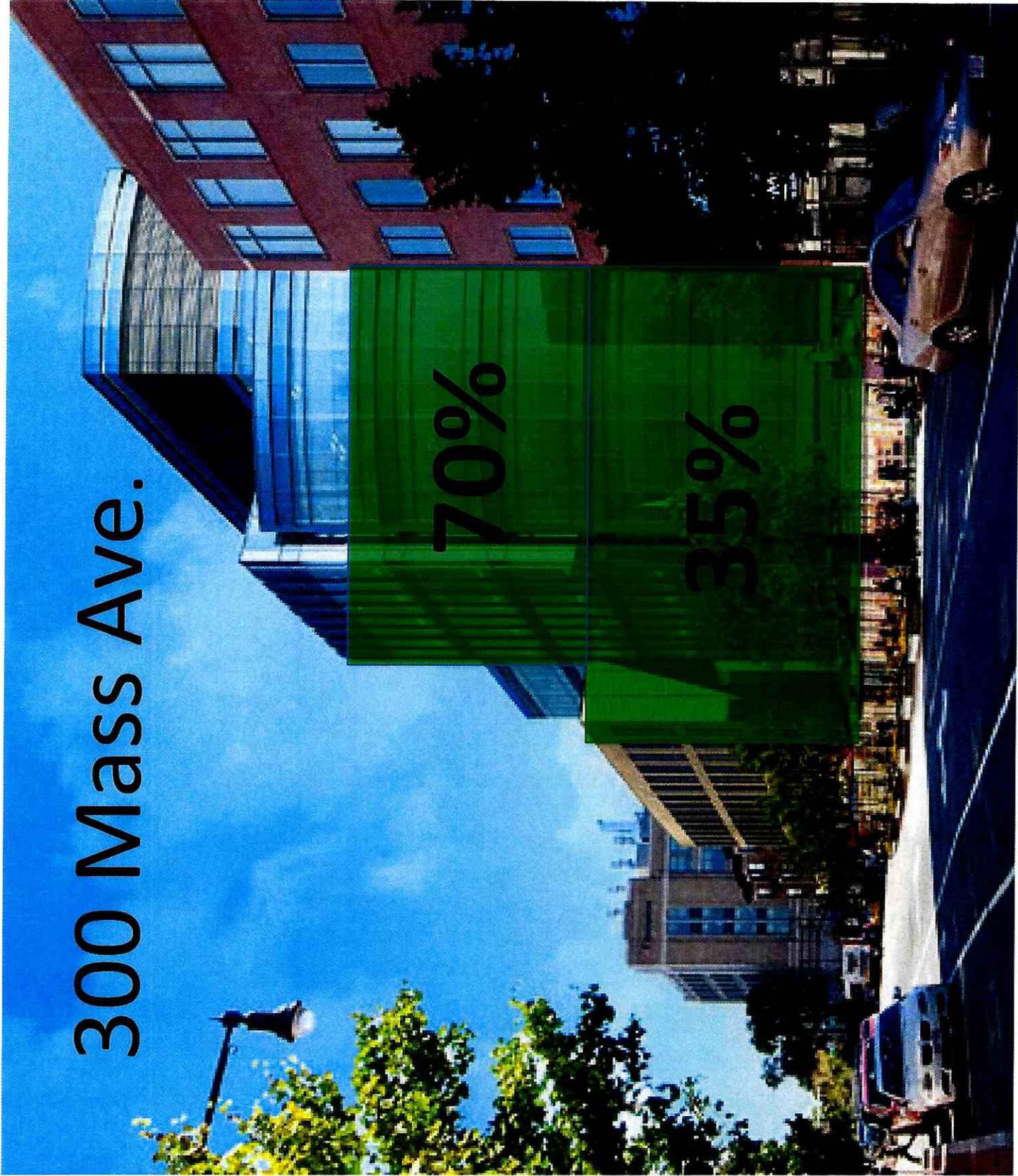
Current Prices for 100% Renewable Electricity

Provider	Price (¢/kWh)	% Increase
NSTAR	16.81	
Veridian	18.05	+6.8%
Verde	18.75	+10.3%

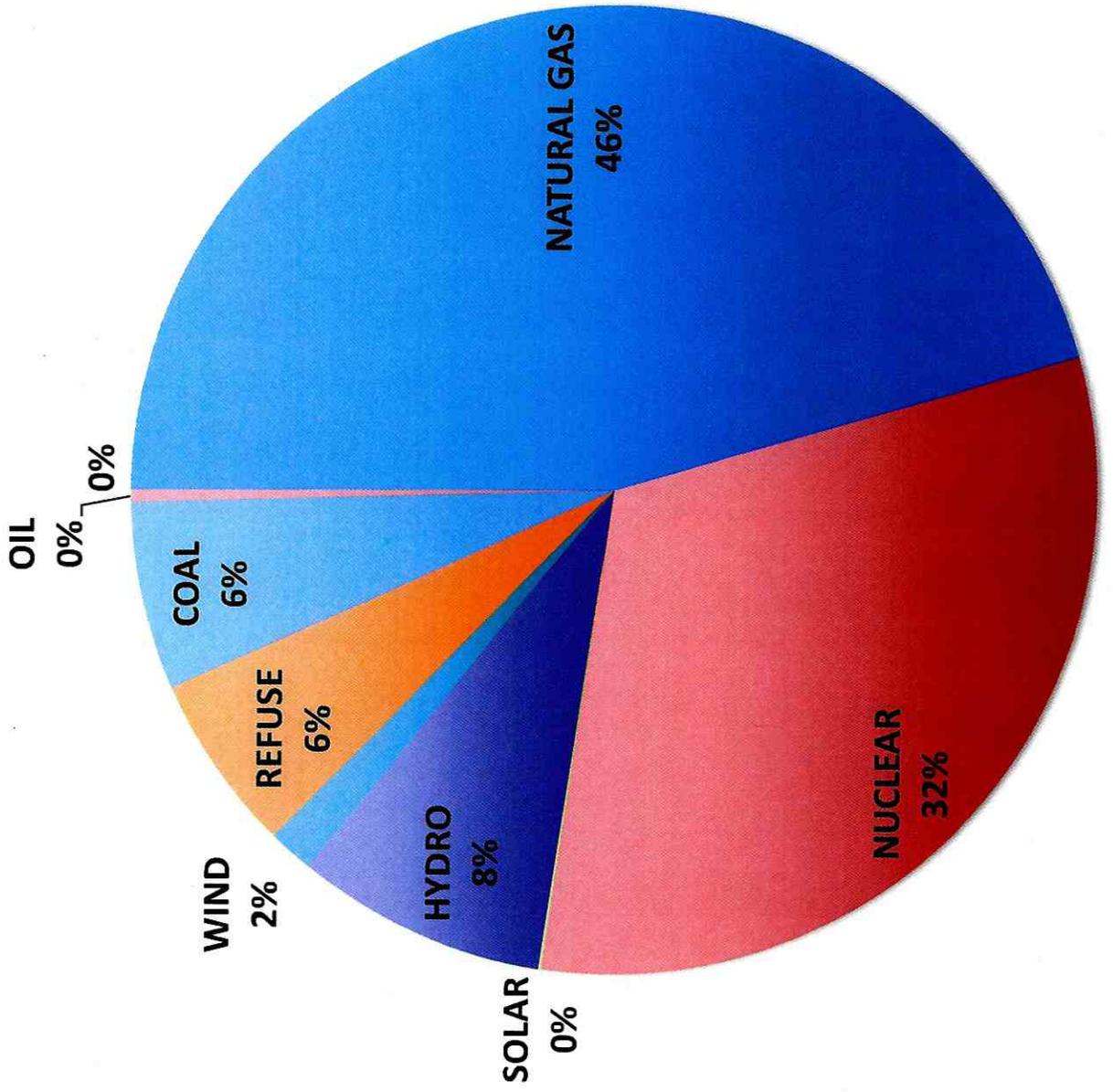
300 Mass Ave.

70%

35%



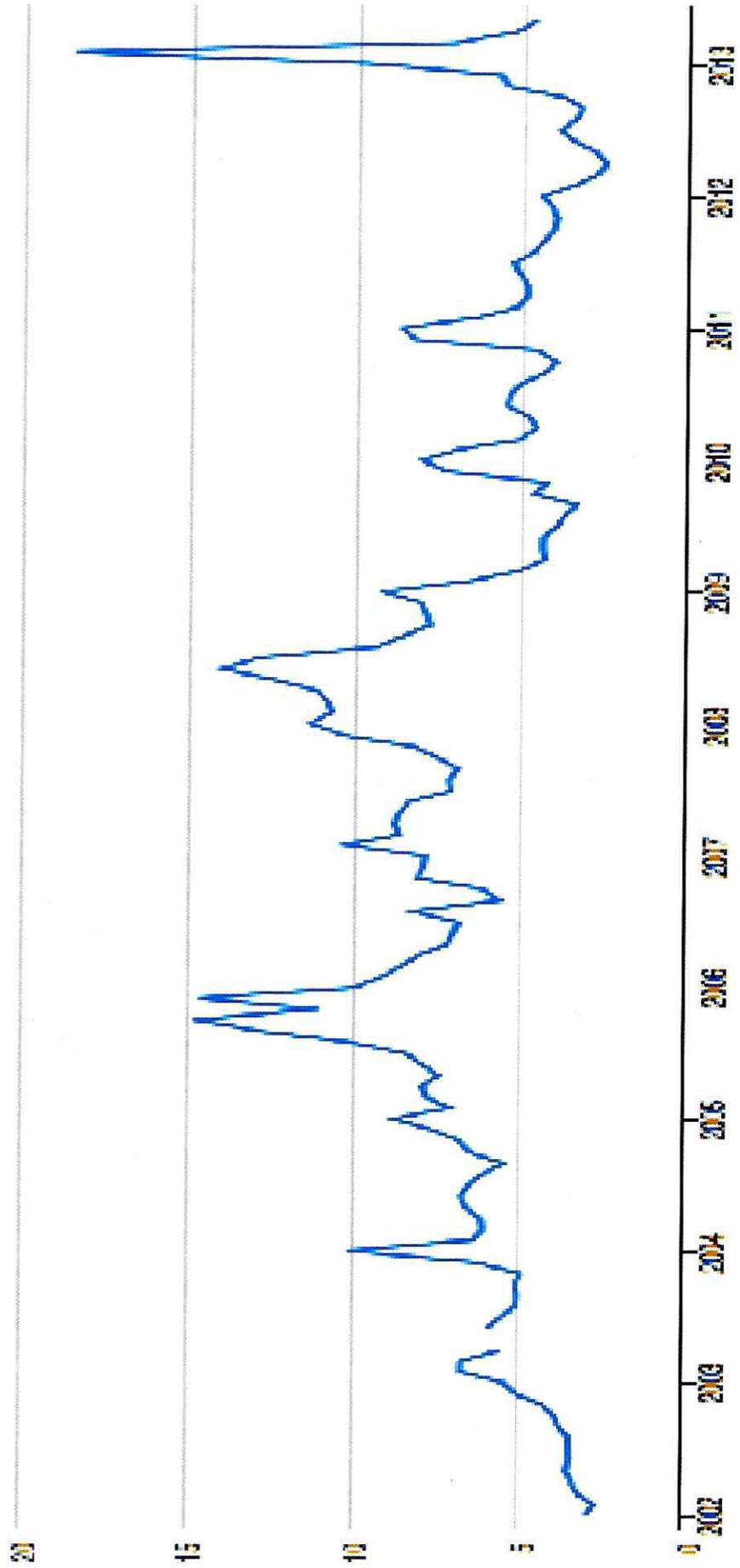
Electricity by Source in New England



Massachusetts Natural Gas Price Sold to Electric Power Consumers



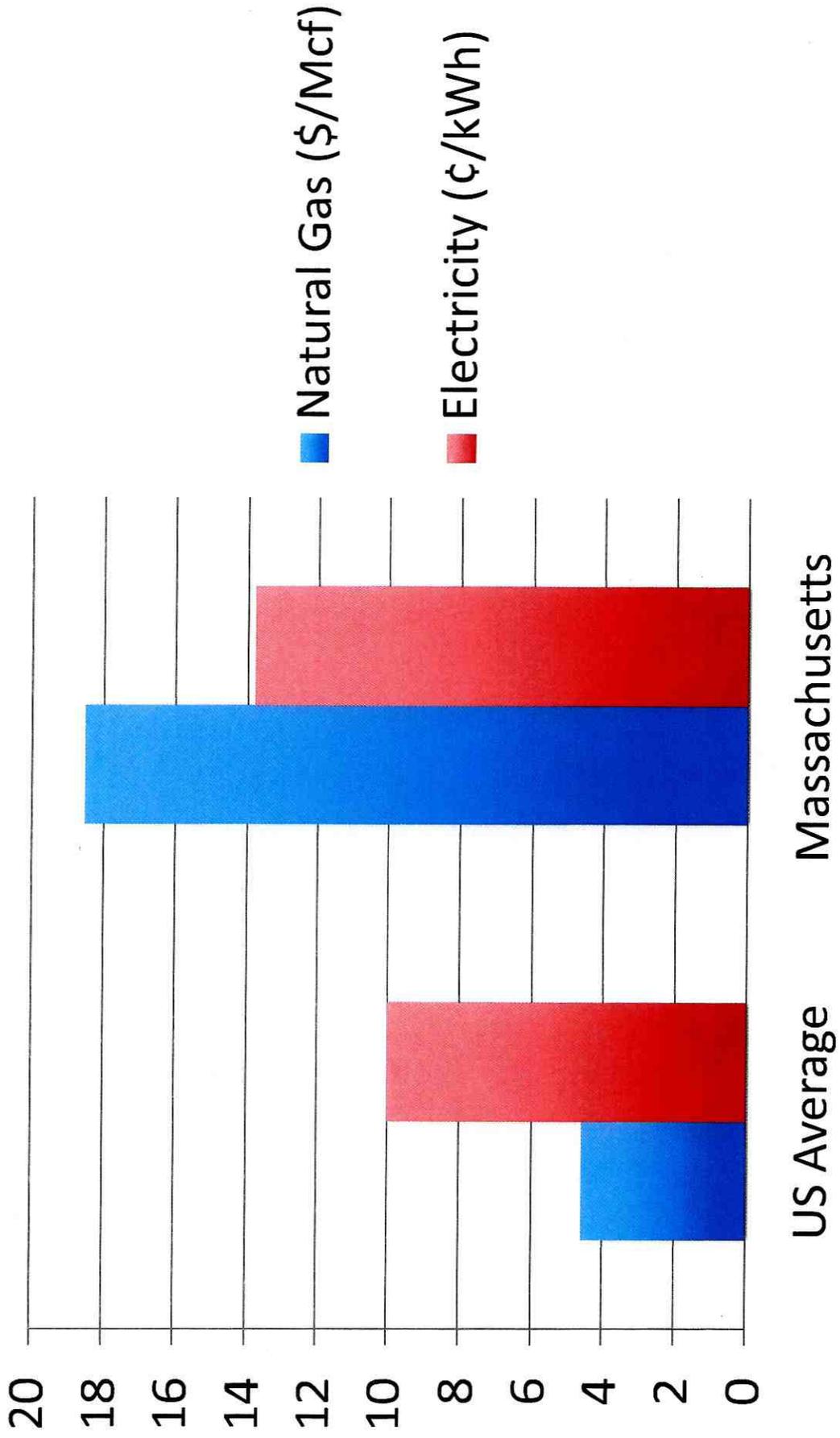
Dollars per Thousand Cubic Feet



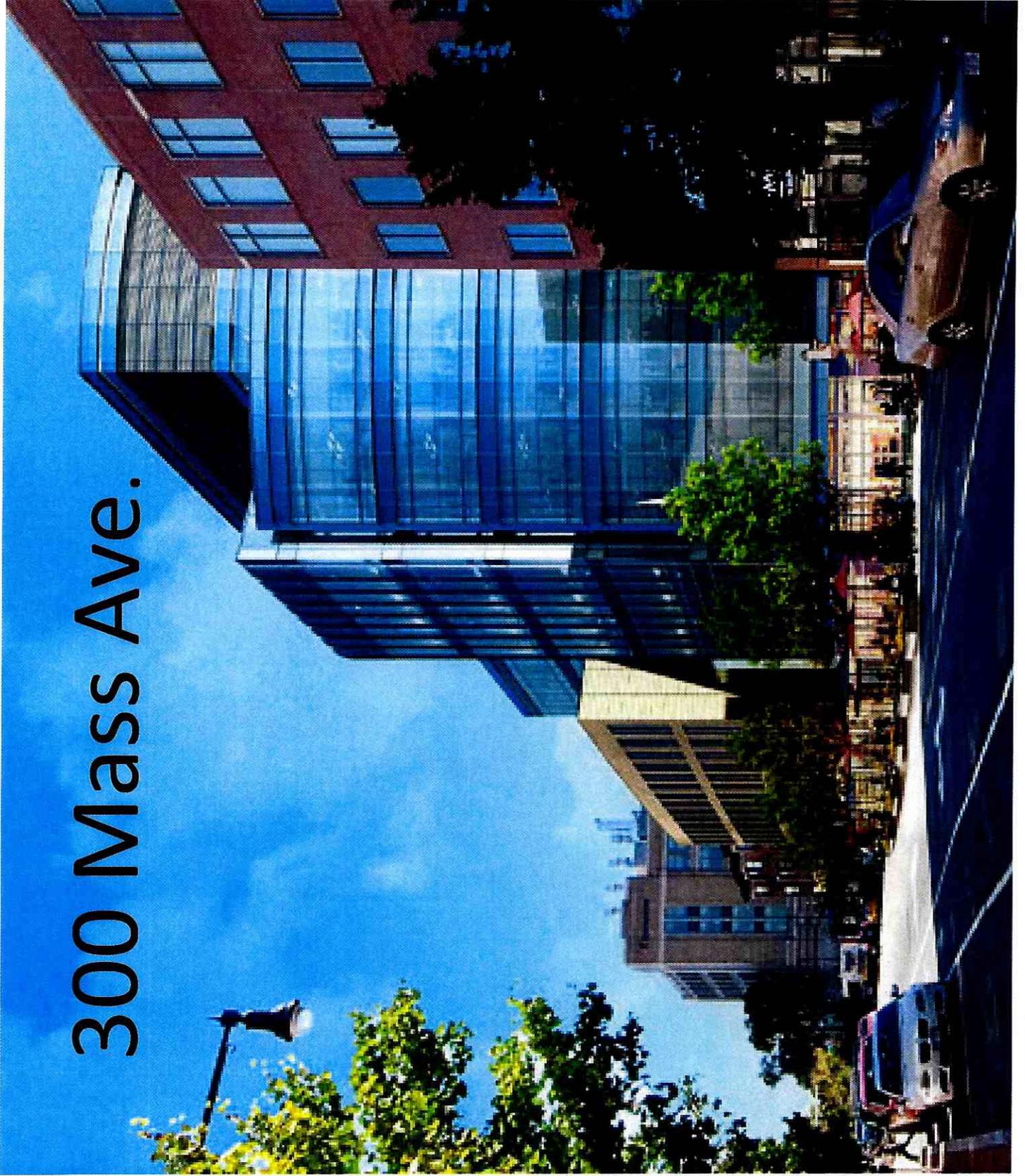
— Massachusetts Natural Gas Price Sold to Electric Power Consumers

February 2013 Natural Gas and Electricity Prices

Prices



300 Mass Ave.



Rooftop PV



300 Mass Ave. Solar Analysis

- 18,000 sqft of solar panels = 250 kW
 - Cost: **\$600,000**
 - Payback period: **5 years**
 - Profit over 25 years: **\$750,000**

Dennis Carlone

Architect

Urban designer

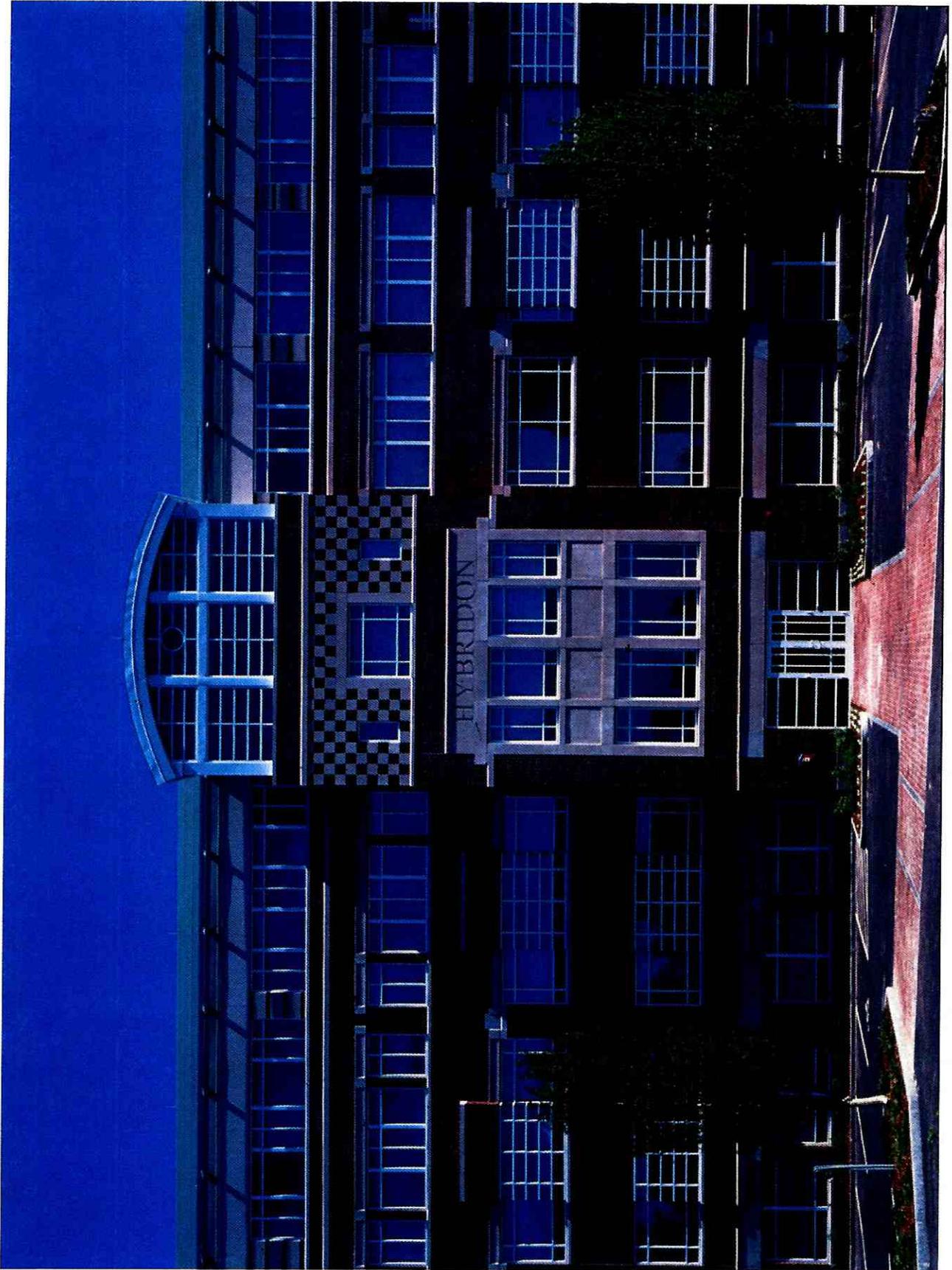
Cambridge resident

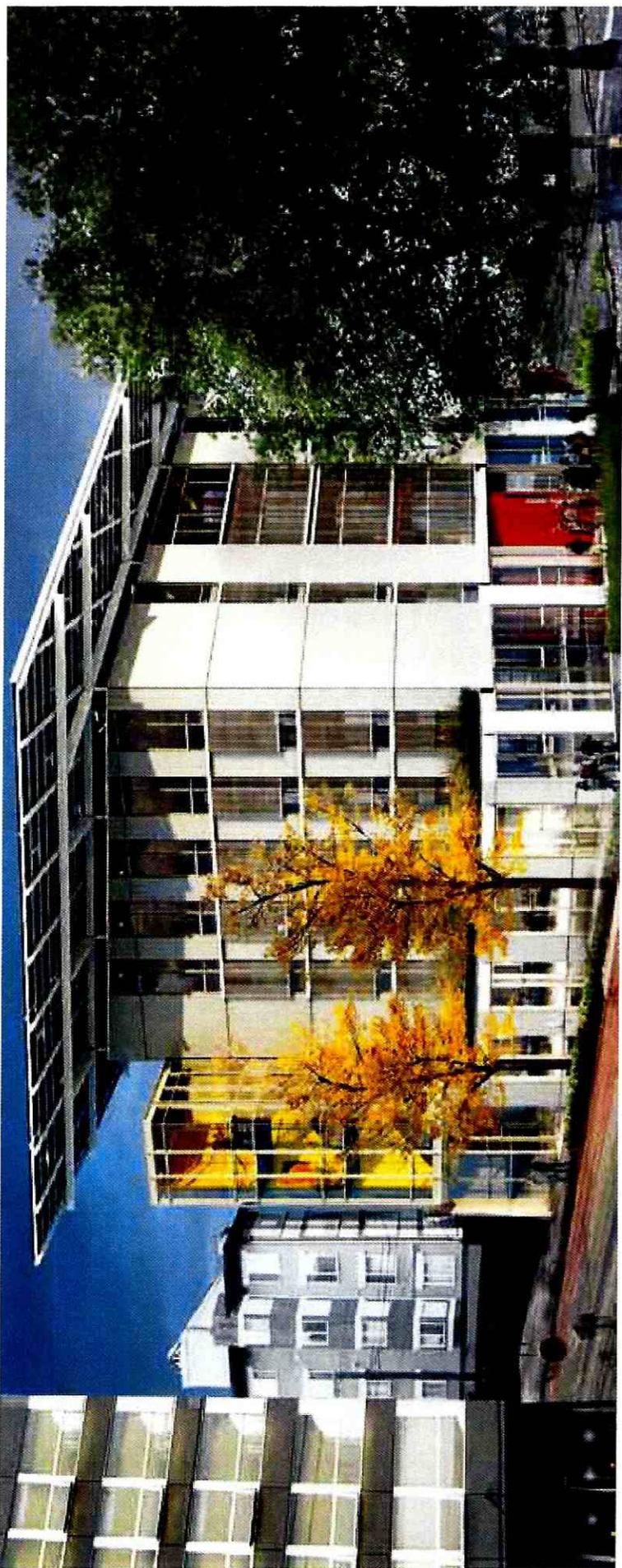
Zoning Enforcement #1

- To address CDD concerns
- Met with Building Commissioner on Aug 19
 - ASHRAE only concern
 - referred to Law Dept
- **Already required to inspect energy reports**
 - Forest City bio-lab & PUD-5
 - also C2 recommendations and City of Boston
 - ISD 50% thru 5 year planned conversion from paper to on-line submissions
- Evasion by subdivision not possible

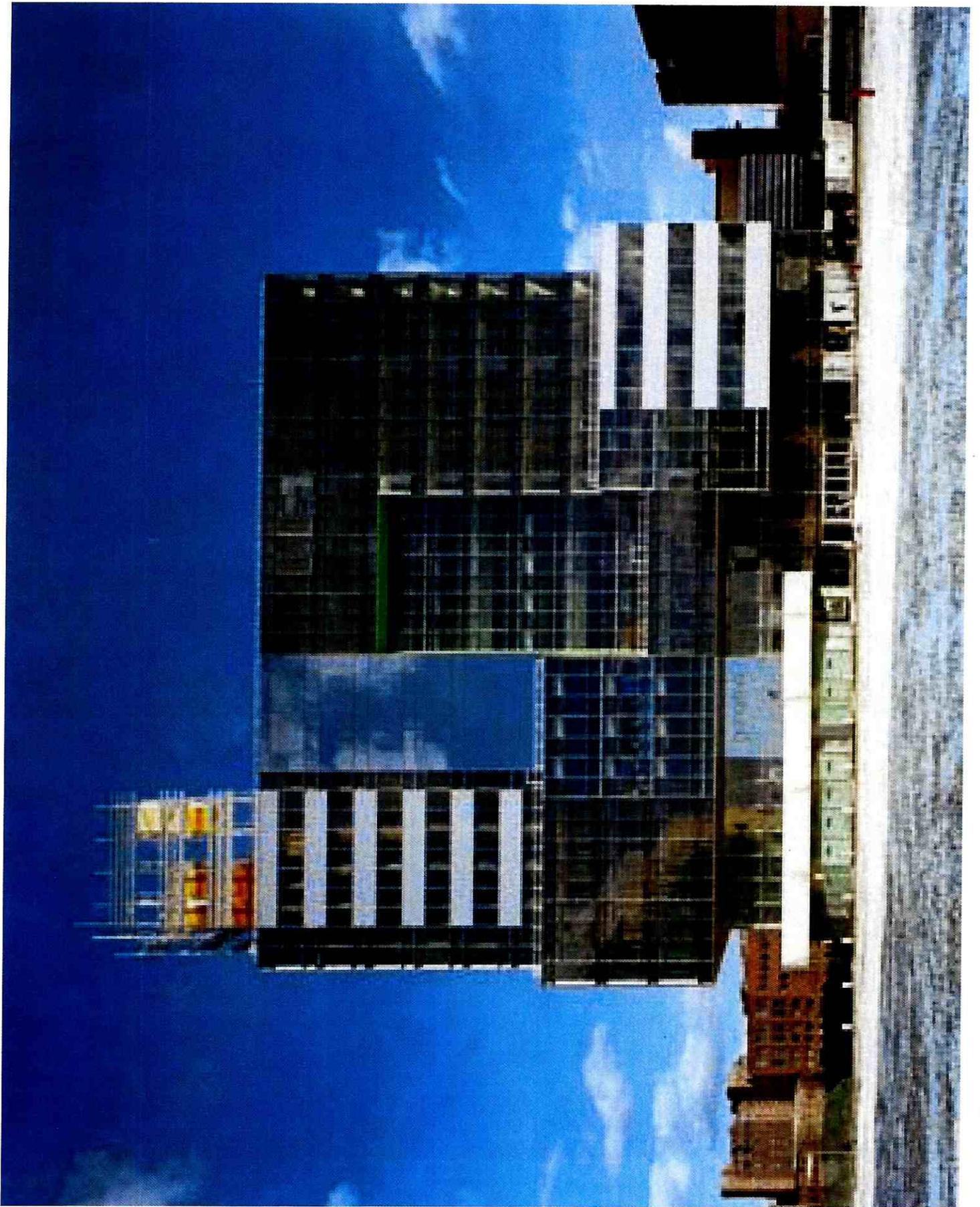
Zoning Enforcement #2

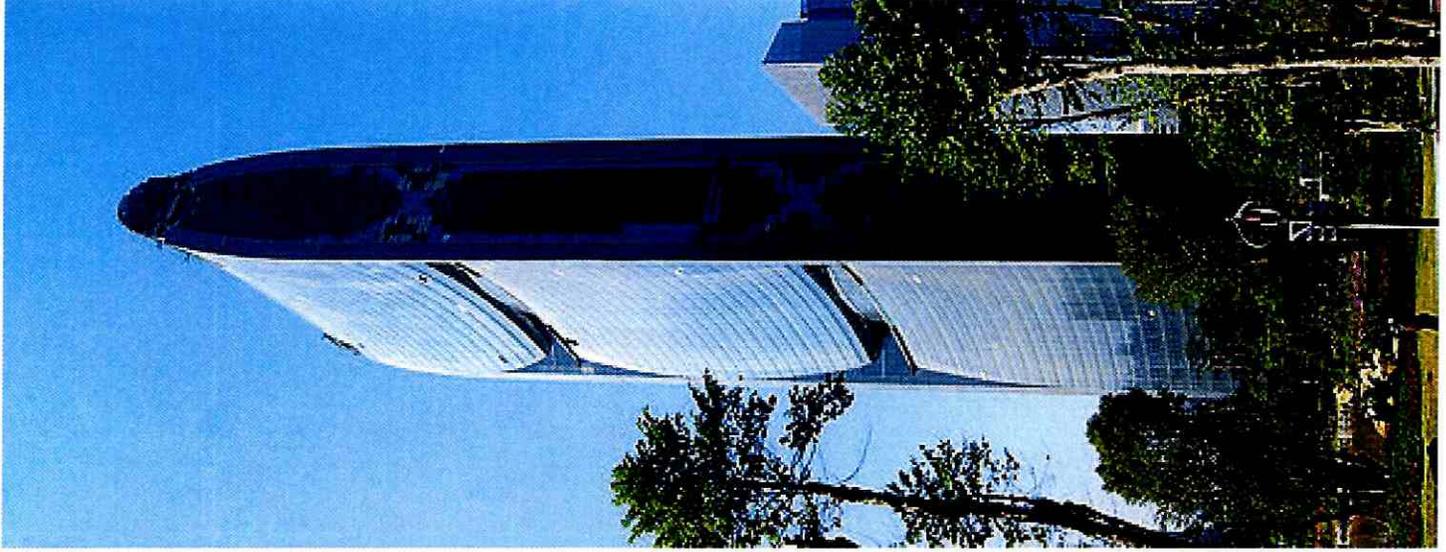
- Penalties far exceed \$300/day fines
 - which is \$110,000/year
- Criminal proceedings prosecuted by ISD attorney
 - always have cases in court
 - Zoning compliance is **NOT** just at permit
 - “complaint driven”
- Judges have ordered:
 - Fines, liens
 - Specific actions to be performed by violator





Cascadia Center
6 stories, 52,000 Sq Ft





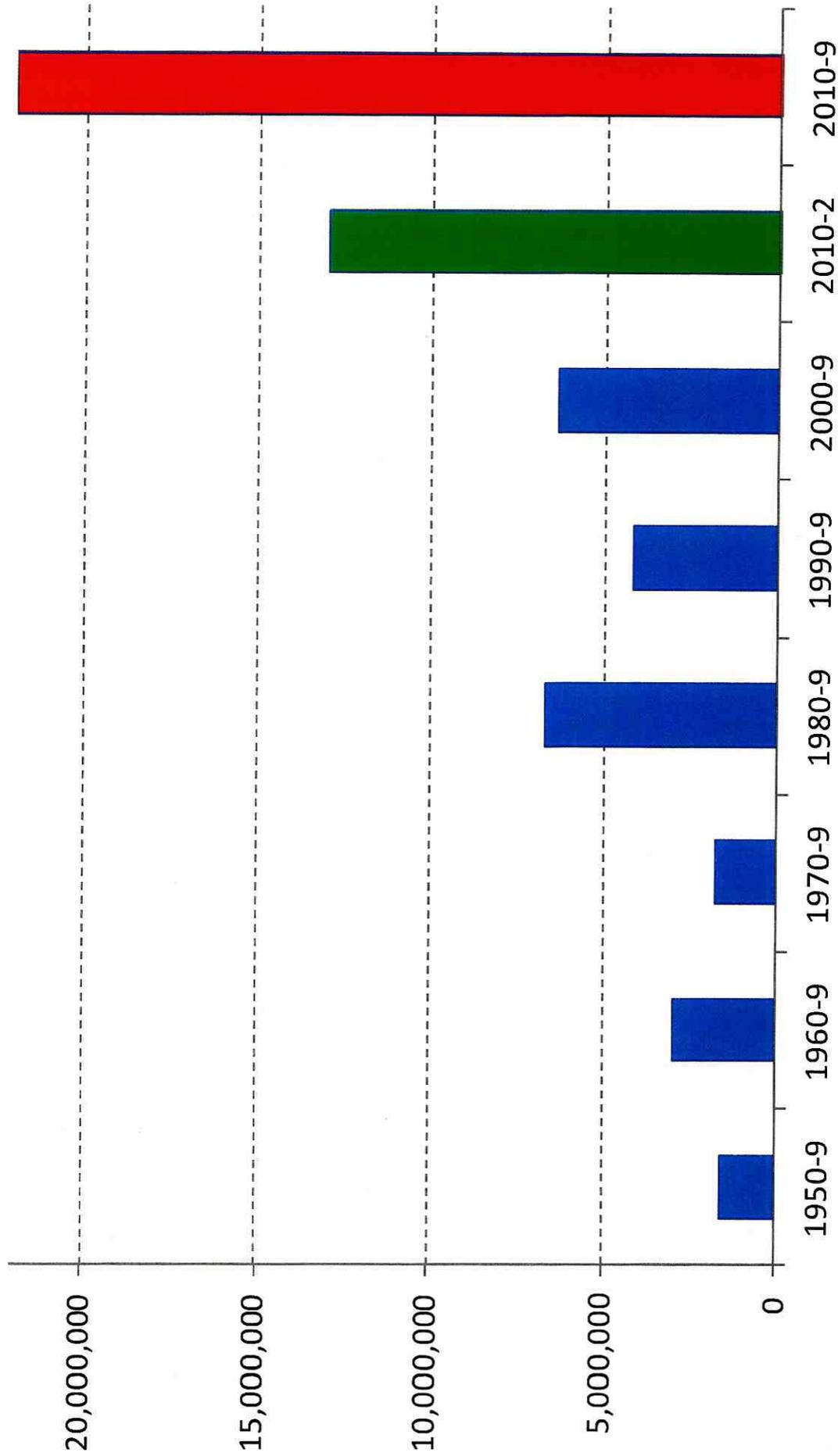
Pearl River Tower

71 Stories
2.3 M Sq Ft

Construction in Sq Ft -- by decade

this decade equal to previous 50 years

Bio-Lab Moratorium lifted in 1977



“2007 Towards a Sustainable Future” #1

- A number of businesses and institutions located in Cambridge track their own greenhouse gas emissions. Businesses that actively manage their environmental performance have been documented to be better risks for investors. Corporate environmental responsibility has also become a factor in recruiting and retaining employees.

“2007 Towards a Sustainable Future” #2

- Cambridge is in a position to apply many existing technologies and approaches to tackle this problem and to take advantage of emerging trends and resources in energy, transportation, land use, and waste management ...

If not Cambridge, Harvard, and MIT, then who?

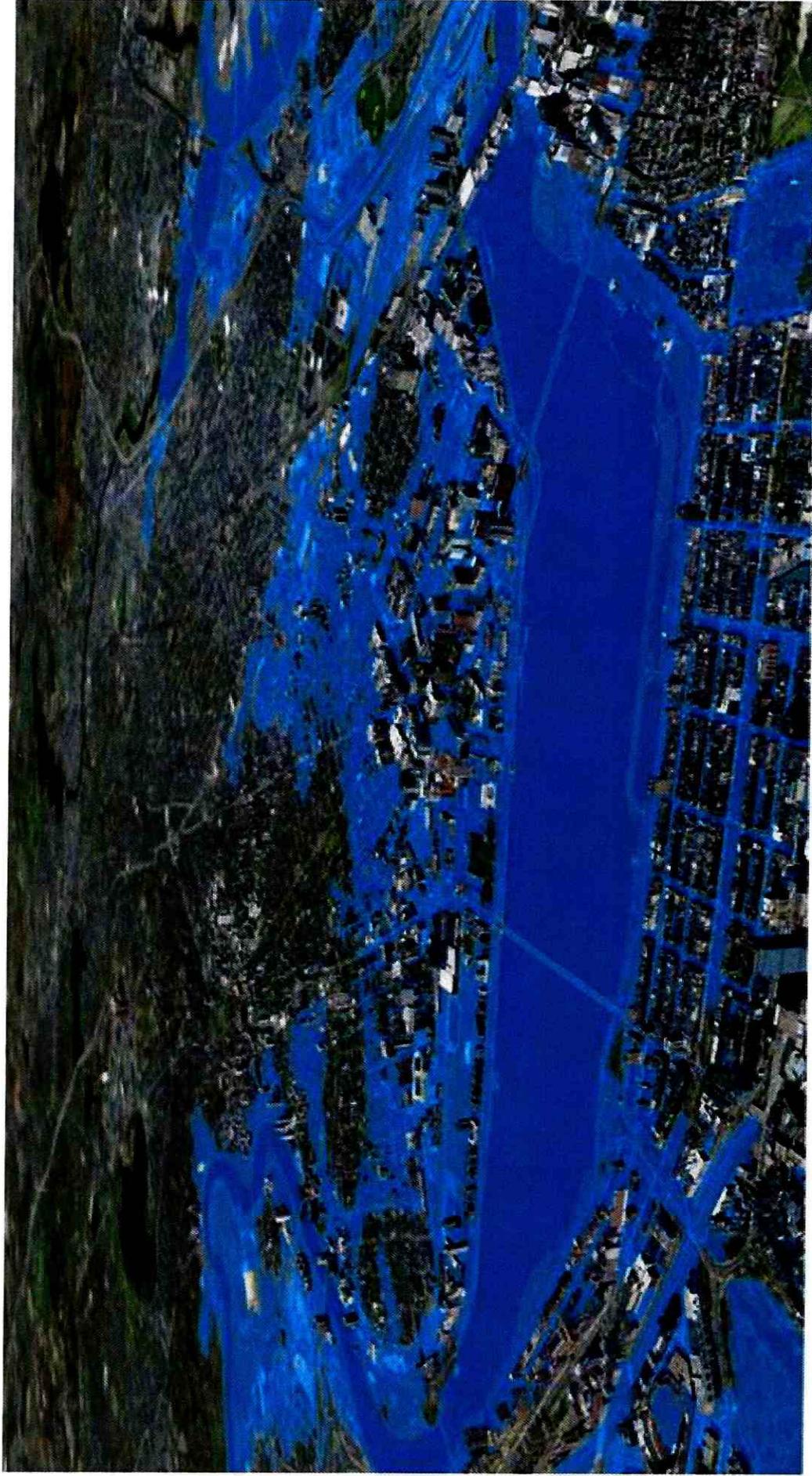
- We have:
 - the knowledge
 - the economy: a building boom
 - important to build Net Zero Now
 - instead of inevitable retro-fits
- *Noblesse oblige*: the obligation of honorable, generous, and responsible behavior associated with high rank or birth
- Net Zero will still have great buildings
 - But more human and more humane

Will Brownsberger

Denial

Awareness

Action



2050; Very High 10 year storm, mid-range 100 year storm
2100; Low 10 year storm, Very low 100 year storm



CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

BRIAN MURPHY
Assistant City Manager for
Community Development

To: Planning Board
From: CDD Staff
Date: August 16, 2013
Re: **Connolly, et al. Zoning Petition ("Net Zero" Greenhouse Gas Emissions)**

Summary of Proposal

The proposal would add new requirements to Articles 19.000 (Project Review) and 22.000 (Sustainable Design and Development) of the Zoning Ordinance. In summary, projects requiring a Project Review Special Permit (Section 19.20) would need to submit a Net Zero Emission Narrative and a Greenhouse Mitigation Plan in order to meet the following standard upon approval by the Planning Board:

All new construction or changes in use requiring Project Review Special Permits shall be required to report their energy usage in daily operation on a quarterly basis and purchase Massachusetts Class I Renewable Energy Credits (RECs) for any portion of such usage that is generated by non-renewable sources (net-zero).

The Greenhouse Gas Mitigation Plan could include the following measures:

- Design features meant to increase the energy efficiency of the building
- On-site renewable energy systems to supply energy for the building
- Purchase of off-site renewable energy
- Purchase of Massachusetts Class I RECs to account for the balance between on-site energy consumption (by tenants as well as owners) and on-site energy generation

Analysis

The proposed zoning aims to mitigate greenhouse gas emissions from new Cambridge buildings by encouraging increased energy efficiency and the use of on-site renewable energy systems. While the intent is consistent with Cambridge's sustainability goals, there are many issues to consider in evaluating this specific proposal. In this memo, we have assembled the following information and commentary:

1. **Net Zero Buildings** – What this means and how it relates to Cambridge
2. **RECs** – How these are defined and used to support renewable energy
3. **Green Power** – How renewable energy can be purchased by consumers
4. **Sustainability Considerations** – How the proposal relates to broader City goals
5. **Zoning Issues** – Compliance, administration and enforcement of the requirements
6. **Potential Outcomes** – What the effects on new development might be

1. Net Zero Buildings

What is a “Net Zero Building”?

Conventionally, “net zero” is a term that refers to energy usage within a building. The terms “net zero energy building,” “zero net energy building” and “zero energy building” are used interchangeably. Although an exact definition is not provided in the proposed zoning, the Massachusetts Executive Office of Energy and Environmental Affairs web site provides the following definition¹:

A zero net energy building (ZNEB) is one that is optimally efficient, and over the course of a year, generates energy onsite, using clean renewable resources, in a quantity equal to or greater than the total amount of energy consumed onsite.

Although building energy is a significant component of greenhouse gas emissions, there is a conceptual difference between net zero energy and net zero greenhouse gas emissions or “carbon neutral” development. The text of the proposed zoning refers to “Greenhouse Gas Mitigation” strategies but appears to cite only energy efficiency and renewable energy strategies.

How is Net Zero Energy achieved?

The way that a building achieves a net zero energy goal is by balancing the energy consumed on the site with energy generated on the site.

- Reduced Energy Consumption: The building is designed and operated to consume as little energy as possible, making use of energy-efficiency practices such as insulation, daylighting, passive heating and cooling, heat recovery systems, maximally efficient mechanical systems and appliances, and geothermal heating and cooling (which consumes some energy but less than a conventional HVAC system). There are also factors aside from efficient design that influence energy consumption, including the local climate, the exact orientation of the site and of the building within the site, the type of building, plug loads and the usage habits of the building’s inhabitants.
- On-Site Energy Generation: The building or site includes systems that produce energy in a renewable way, most typically with solar photovoltaic (PV) cells, but in some cases solar heating or wind energy systems. Some types of on-site energy might be considered renewable but not necessarily carbon-neutral, including generators fueled by biomass or refuse, or fuel cells using natural gas. While these types of systems may contribute to a net zero energy goal, they might have other environmental impacts.

Net zero energy is most typically applied as a performance goal, and is unlike the LEED system, EnergyStar or other design rating that has specific criteria and an independent certification process. There is no accepted nationwide certification program for net zero energy buildings (although some organizations and jurisdictions are beginning to develop such programs), and no single definitive listing

¹ www.mass.gov/eea/energy-utilities-clean-tech/energy-efficiency/zero-net-energy-bldgs

of net zero energy projects. However, there are several different resources that catalogue net zero energy projects based on self-reporting, with different organizations focusing on different criteria.

A review of available resources shows that the number of net zero energy buildings in the United States is small, on the order of dozens. One resource, the U.S. Department of Energy's Zero Energy Buildings (ZEB) Database, lists only ten buildings, most of which are 5,000 square feet or less with some in the range of 10,000 to 20,000 square feet. Another resource, the German web site "EnOB" (Research for Energy Optimized Buildings), shows a map of international net zero energy buildings including approximately 37 net zero energy buildings in the United States, some of which are noted as being in the construction or conceptual stage².

We have reviewed information from various sources and have made the following general characterizations. As an appendix, we provide some additional information about projects that are 45,000 square feet or more and are described as net zero energy.

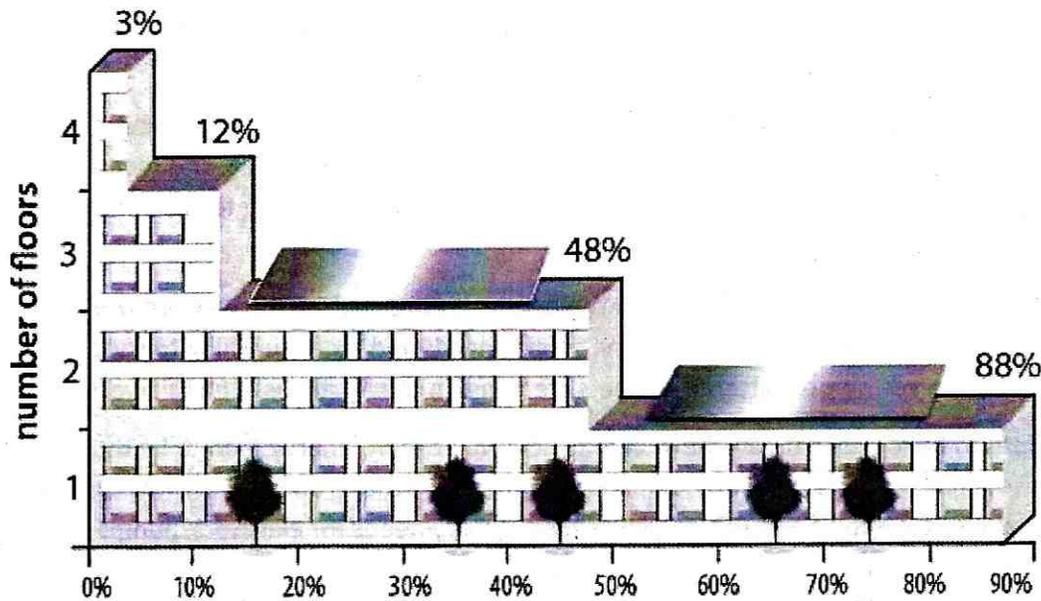
- Most net zero buildings to date rely heavily on the use of photovoltaic (PV) panels to generate electricity and geothermal systems to increase heating/cooling efficiency. This means that net zero energy projects are best suited for sites that are spread out horizontally to accommodate large areas of rooftop PV panels.
- Net zero projects are more achievable in temperate regions such as the western United States, where there are less intensive heating and cooling needs and more sunshine to support the use of solar PV. However, some scattered projects are found in the Northeast, the Midwest and the South.
- The types of buildings that have been able to achieve net zero energy tend to be those with lower energy demands, such as schools, residences, recreation centers and some office buildings. Net zero buildings also tend to be low-rise, which reduces energy needs for elevators, pumps and mechanical systems. Most of the projects tended to be small in size (less than 50,000 square feet), and those that are larger tend to use unusual energy sources such as nearby landfill gas or biomass systems.
- Net zero energy measures can add significantly to upfront construction costs. A review of available research by the New Buildings Institute³, citing a study by the Cascadia Green Building Council, indicates that energy efficiency measures can result in cost premiums of 5-15% while solar PV can add another 5-15% (p. 27) for commercial (mainly office) buildings. While some incremental costs can be minimized in smaller buildings, "In larger buildings, the costs of moving to advanced types of HVAC increased costs more significantly" (p. 31).
- Net zero energy improvements "pay back" their costs over time through reduced needs to purchase energy from utilities. However, in many commercial buildings, these energy savings may not be factored into project costs because ongoing energy costs are typically passed along to tenants.
- Many of the buildings that are characterized as net zero energy have institutional or public sector owners rather than commercial owners. There are a variety of reasons why institutional owners are

² www.enob.info/en/net-zero-energy-buildings/map

³ www.naseo.org/data/sites/1/documents/publications/Getting-to-Zero-Report.pdf

more likely to pursue this goal, including the ability to realize long-term cost savings (as noted above), more ability to control energy use, and harmonization with the goals of the institution.

A 2007 report from the National Renewable Energy Laboratory⁴ assesses the technical potential for achieving net zero energy buildings in the commercial sector. The assessment is based on energy efficiency and solar photovoltaic technologies the authors expect to be available by 2025. On this basis, the report finds that 80% of projects with one story will be able to reach net zero status; for two stories 48%; for 3 stories 12%; and for 4 stories 3%. Above 3 stories it is extremely difficult for a project to achieve net zero energy with technologies expected to be available in 2025 according to the NREL study. The study also found that laboratories rank last out of 17 building types that can meet zero net energy.



Percent of U.S. buildings by floor area that could achieve net-zero as a function of number of floors

5

While the available information shows that net zero energy buildings are achievable as a concept, there is no set of standards that can be applied to all types of buildings on all possible sites. This could be a concern when applying net zero as a requirement for all large buildings, especially in a city such as Cambridge, where most sites do not have the characteristics (large lot areas, low-scale buildings, and favorable weather conditions) that contribute to the feasibility of net zero energy.

⁴ B. Griffith et al., "Assessment of the Technical Potential for Achieving Net-Zero-Energy Buildings in the Commercial Sector," NREL/TP-550-41957

⁵ <http://www.buildinggreen.com/auth/article.cfm/2010/7/30/The-Problem-with-Net-Zero-Buildings-and-the-Case-for-Net-Zero-Neighborhoods/>

2. RECs

What is a “REC”?

RECs were created as a regulatory compliance mechanism and are used in various jurisdictions around the United States. The specific way in which they are used varies state-by-state. The abbreviation usually stands for “Renewable Energy Certificate” but sometimes stands for “Renewable Energy Credit.” RECs are also created and sold in voluntary markets.

In concept, a REC is a virtual, tradable commodity that serves as “proof” that a certain amount of electricity (typically, one megawatt-hour per REC) has been generated by a renewable energy source. The REC is sold separately from the energy itself. Therefore, an energy generator can sell its energy to utilities at the prevailing market rate, and also receive a “bonus” by selling the REC. The REC represents the renewable energy technology by which the electricity was generated, as opposed to conventional energy generation. Utilities purchase RECs to comply with regulatory requirements, primarily “renewable portfolio standards.” Consumers also purchase RECs in regulated or voluntary markets to support green technology or for uses such as earning credits for green building standards such as LEED.

In Massachusetts, a REC is a “Renewable Energy Certificate” (although the proposed zoning uses the word “Credit”) and is a component of the Massachusetts Renewable Portfolio Standard (RPS)⁶, a state regulation administered by the Department of Energy Resources (225 CMR 14.000). The RPS requires that electricity suppliers obtain a certain percentage of the electricity they provide to retail customers from renewable generation units. Currently, the regulation is separated into “Class I” units, which includes solar photovoltaic, solar thermal electric, wind energy, small hydropower, landfill methane and anaerobic digester gas, marine or hydrokinetic energy, geothermal energy (not including ground-source heat pumps) and eligible biomass fuel. The current Class I requirement is 8% of electricity sold, and increases by one percentage point annually until it reaches 15% in 2020. A portion of the required Class I energy must be specifically from solar energy systems. A “Class II” regulation requires that a certain percentage must be purchased from other types of renewable energy or waste energy generators. The RECs are purchased by energy suppliers to certify that they have met the requirement.

Massachusetts is part of a regional electric grid managed by ISO New England and RECs are documented under the ISO’s generation information system. In the voluntary market, RECs are certified by third party organizations, with the Green-e program of the Center for Resource Solutions being the most prominent. A REC is not necessarily equivalent to a carbon offset, and there are separate voluntary, third-party certification programs for carbon offsets.

How much do RECs cost?

Because the Massachusetts RPS requires that a set quantity of RECs must be purchased, their price does not behave in the same way as RECs generated for the voluntary market, which are subject to supply and demand. Massachusetts also sets an Alternate Compliance Payment Rate that is charged to

⁶ www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/rps-aps/

suppliers who do not comply with the requirements by purchasing RECs, which places other artificial constraints on the price of RECs certified under the Massachusetts Class I RPS. As a result, there is a wide disparity in the price of Massachusetts Class I RECs and voluntary RECs (e.g., wind energy RECs from the Midwest). A Massachusetts RPS Class I REC currently costs roughly \$65, while a REC certified by another authority can cost \$1 to \$2. Also, since the Massachusetts RPS requirement increases every year, the price continues to increase.

Under the proposed zoning, the requirement to purchase RECs certified under the Massachusetts Class I RPS would be a significant cost to building owners, which would likely get passed along to tenants since it would be assessed on an ongoing basis. In addition, because it would add new demand for these RECs in a market in which demand is already set artificially high (and increasing) by the state regulations, it could increase the cost of RECs for electricity providers, which would get passed along to energy customers throughout the state, including residential and small commercial ratepayers.

3. Green Power

The petition recognizes the option for property owners to purchase electricity from renewable sources. NSTAR provides a green power option called NSTAR Green to residential and some small commercial ratepayers. The ratepayer can opt to pay a premium for electricity that is generated from wind farms in New York and New Hampshire for which the power and the RECs have been bundled. NSTAR Green is not available to large commercial customers.

Most large commercial customers purchase their electricity from competitive suppliers. NSTAR only transmits the power to the properties. Under competitive supply contracts, customers can negotiate for green power. However, this could take different forms, and could possibly involve marrying conventional power sources with RECs generated outside the ISO New England grid, resulting in a small additional premium for using green power. It would be possible for competitive suppliers to provide Massachusetts Class I RECs along with the power from conventional sources, or the contract could provide both power and RECs from a renewable energy source, and there would be a substantial cost difference in these approaches. It is not clear how the proposed requirements would apply to this type of scenario.

4. Sustainability Considerations

The proposed zoning requirement is intended to encourage energy efficiency and on-site energy in buildings, both of which would benefit the City's goals of greenhouse gas reduction. However, the concept of "net zero energy" does not always align perfectly with the City's greenhouse gas emission goals. There are some broader sustainability considerations that should be taken into account in evaluating the proposal.

- Cambridge is a densely settled community, and one of its overall sustainability benefits is the ability to share resources in close proximity. Requiring buildings to be self-sufficient in terms of their energy use may not be a feasible or desirable goal when distributed renewable energy systems and area-wide efficiency improvements may have greater benefits across a larger area.

- Because net zero energy on a site-by-site basis is most feasible on relatively large sites with relatively low-density development, the environmental goals of net zero energy buildings need to be weighed against the potential impacts of encouraging lower-density, “sprawl” forms of development.
- Although improving the energy performance of new buildings and increasing the amount of on-site renewable energy would help to minimize the increase in overall greenhouse gas emissions in Cambridge, the requirement of Cambridge property owners to purchase RECs may not have the same benefits. It is unclear whether the incremental investment of Cambridge owners would lead to additional renewable energy installations in the region. Cambridge accounts for approximately 2% of electricity demand in Massachusetts, so new development only accounts for a very small percentage of electricity demand for the region.
- New development is still a fraction of the overall building stock in Cambridge, and therefore reducing energy use in existing buildings may be imperative. Many of the City’s sustainability initiatives focus on reducing energy use in existing buildings across Cambridge. If Cambridge real estate owners, and the companies and residents who lease from them, are required to expend resources on RECs to support renewable energy generators such as wind farms and methane digesters across the Northeast, it could result in fewer resources to invest in sustainability initiatives in Cambridge.

5. Zoning Issues

The structure of the proposed zoning is unique compared to other zoning regulations, most of which can be met by following a straightforward set of building design and use standards. In some cases, discretionary findings must be made and a special permit or variance issued before a project can proceed. Zoning compliance is verified by reviewing plans before a project is permitted to be built or occupied. Unless a project is changed in the future, which would require a new building permit or certificate of occupancy, no ongoing review is required to ensure zoning compliance. The proposed zoning is different because it would require discretionary approval followed by a strict standard (energy reporting and purchase of RECs) that would need to be met after the building has been constructed.

The current zoning regulation that seems to be the basis for much of the proposed zoning text is the Traffic Mitigation Plan provision in Section 18.10 of the ordinance. Section 18.10 lists ongoing requirements that the Planning Board may require as part of traffic impact mitigation, such as subsidized transit passes and shuttle services. In the case of the Greenhouse Gas Mitigation Plan, the permittee may “consider and adopt as appropriate” mitigating measures such as increased building energy efficiency, on-site renewable energy generation, reporting on-site energy consumption and generation on a quarterly basis and purchasing of Massachusetts Class I RECs to “balance” the difference (which is listed in the proposed zoning both as potential mitigation and as a strict requirement), virtual net metering, and requiring compliance by tenants.

The proposal raises the following concerns with regard to zoning compliance, administration and enforcement that should be considered:

- Project Review/Approval: In order to comply with a zoning requirement, a property owner generally has to either meet a specific prescriptive standard or qualitatively demonstrate that a project meets certain criteria in order to receive discretionary approval. It is not clear whether the proposed requirements are prescriptive or discretionary. No specific criteria are enumerated, therefore it is not clear how the Planning Board would make a finding. It is also not clear how the Planning Board's review would relate to the prescriptive requirement to purchase RECs. For example, could the Planning Board approve some other measure, such as carbon offsets, in place of RECs? Conversely, if the developer meets the requirement to monitor energy and purchase RECs, could the Planning Board still reject a project on some other discretionary basis?
- Ongoing Compliance: There are many variable factors that might affect a property owner's ability to comply with the ongoing requirement to monitor energy and purchase RECs. Even when best practices are used, it is difficult to predict the energy performance of a building with a high degree of certainty, and similarly difficult to predict the cost and availability of RECs to be purchased. Also, in many buildings, energy use is controlled not by the property owner but by tenants, and only the property owner can be held responsible for zoning compliance. As a result, a property owner might not be able to accurately evaluate a building's level of compliance while at the design stage. Even if a project seems to comply at first, the future circumstances of the owner, future owners, or tenants may affect the ability to comply with the requirement over time.
- Administration and Enforcement: Under the proposed zoning, each new building subject to the requirements would need to undergo an ongoing administrative review, with reports that would need to be submitted and certified four times per year. Not only would this would require a significant increase in City resources to administer, it would put enforcement officials in a challenging position. Prior to construction, it is the property owner's burden to comply with zoning because otherwise, the project would not be permitted. After a building is completed, it becomes the City's burden to actively enforce compliance and to prosecute property owners who do not comply, which requires a different level of administration and different enforcement tools. When withholding permits is not an option, the only punishment provided by state zoning law is a fine of no more than \$300 per day per zoning violation. Even if the violation were the fault of a tenant, the City could only hold the property owner responsible, leading to possible multi-party conflicts. If a project fell out of compliance and required enforcement action, it could divert the City's resources away from other environmental initiatives in order to resolve legal conflicts.

6. Potential Outcomes

Affected Projects

All new projects subject to Project Review Special Permit requirements (Section 19.20) would be affected by the proposed new zoning. This would include nearly all projects of 50,000 square feet of floor area or more, whether they are residential, non-residential or mixed-use. (In some instances, the threshold is less than 50,000 square feet.)

Since Section 19.20 was adopted in 2001, the Planning Board has granted about 50 Project Review Special Permits, most of which have been completed or are currently in construction. This is an average rate of four or five projects approved per year. In total, Project Review Special Permits have accounted for about 5.7 million square feet of completed development, including:

- 1,600+ residential units
- 1.5+ million square feet of office/lab development
- 50,000+ square feet of retail space
- 1.3+ million square feet of institutional (non-residential) space
- 1,500+ dormitory beds

Another 4.1 million square feet of development is in construction and 6.5 million square feet more is permitted. Roughly half of the new development (by floor area) that has been built in Cambridge over the past ten years has received a Project Review Special Permit.

Benefits and Potential Risks

If the proposed zoning were to meet its intended goals, each new large project would meet the highest possible standards for energy efficiency and renewable energy generation, and property owners would develop the capability to continually report the project's energy use on a quarterly basis and compensate for any non-renewable energy consumption through the purchase of Massachusetts RPS Class I RECs. This would benefit Cambridge's sustainability goal to reduce non-renewable energy consumption, assuming that about the same (or higher) proportion of new development would continue to seek approval under the Project Review Special Permit requirements.

However, there are significant risks of unintended consequences that would need to be considered, including the following:

- Given the likelihood that many new large projects in Cambridge would not be able to feasibly achieve a net zero energy goal through improved efficiency and on-site renewable energy generation alone, projects would need to purchase large quantities of RECs to comply. While this might have some broader environmental benefits, it would not have as direct an impact on energy use in Cambridge buildings.
- The potential variability in the cost and availability of Massachusetts RPS Class I RECs could cause issues in two different ways. If the cost turns out to be too high or too volatile, it might make projects less financially feasible and result in developers putting off projects or seeking ways to avoid the requirements. If the cost turns out to be too low, it could encourage developers to "buy out" of the requirement rather than implement meaningful efficiency measures.
- If the cost or financial risk of projects becomes high enough – due to the added cost of efficiency improvements, on-site energy systems, and RECs – developers may be discouraged from investing in other public benefits, such as transportation improvements, utility improvements, open space or other initiatives.

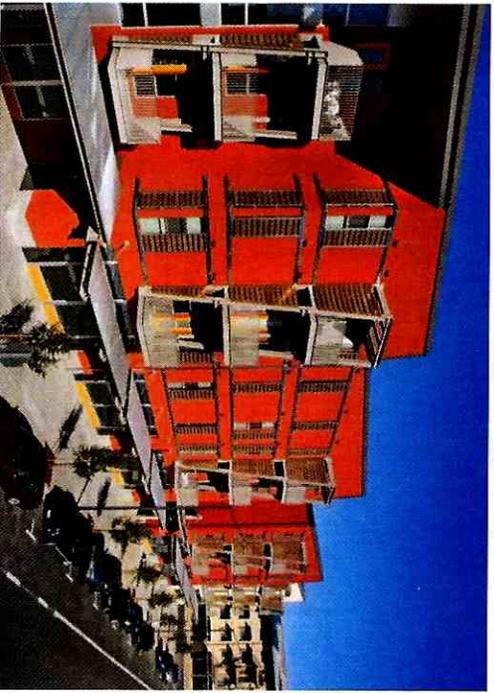
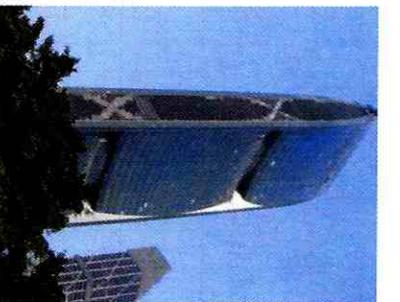
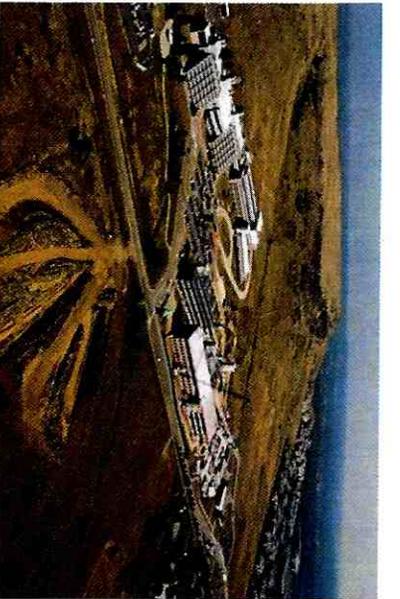
- Rather than comply with requirements, property owners and developers may try to avoid them by “scaling back” projects or reconfiguring lots to stay below the Project Review Special Permit threshold. As a result, a smaller proportion of projects would be subject to the proposed “net zero” requirements, as well as the traffic mitigation and urban design requirements in Section 19.20, and the current green building standards for projects of 50,000 square feet or more (which is currently LEED Silver in most districts).
- Adding a set of requirements that impose ongoing and unpredictable costs may create a “market imbalance” for everyone with a stake in Cambridge real estate, including developers, companies and residents. More developers may decide to work in other communities where the standards are easier to meet. For projects that are built, future owners or tenants would bear the burden of the ongoing costs, resulting in higher rents for housing and office space. Because surrounding communities would not impose these ongoing costs, companies and residents may seek more affordable options outside of Cambridge. This trend could also increase prices for existing building space in Cambridge that is not subject to the requirements.

NET ZERO BUILDING DATABASE (~ >50,000 SQFT)

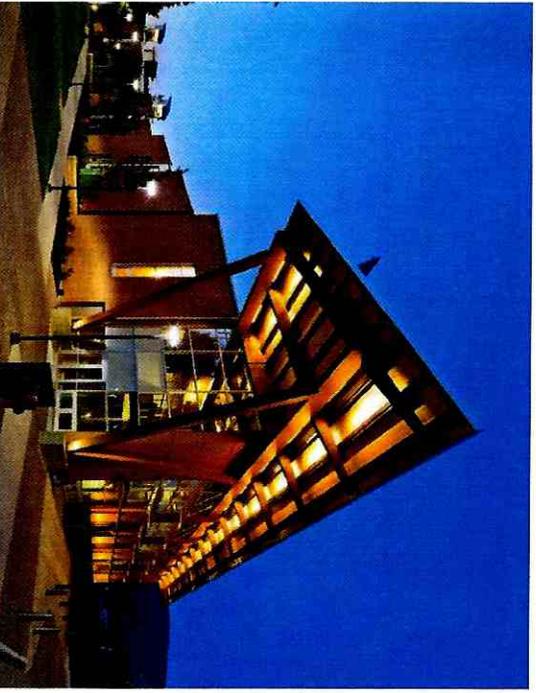
PROJECT NAME	SQFT	PARCEL (SQFT)	FL	USE/TYPE	STRATEGIES	LOCATION	DATE	HEATING DEGREE DAYS	COOLING DEGREE DAYS	CONSULTANT/ CERTIFICATION
1. Craig Venter Institute	45,000	76,200	3	Non-Commercial Laboratory	PV panels, natural day lighting and views, natural ventilation/passive cooling, 90,000 gallons of rainwater harvesting, native low-water landscaping, regional materials, green roof	La Jolla, San Diego	NC/2013	486	566	ZGF Architects
National Renewable Energy Lab	222,000	-	4	Laboratory	advanced heat recovery technologies, 1.6 megawatts of PV power, daylighting, natural ventilation, energy data center	Golden, Colorado	NC	3755	1664	Stantec - LEED Platinum
Pearl River Tower	2.3 mm	114,000	71	Offices	radiant cooling with floor-fed ventilation, triple glazing, motorized venetian blinds that follows the sun, integrated PV panels, vertical-axis wind turbine for electricity, four large opening for ventilation and increase in air speed, hydrogen fuel cells to store excess generated energy	Guangzhou, China	2011	-	-	SOM
UC Davis West Village	5.7 mm	-	4	Residential, Commercial	solar reflective roofing, radiant barrier roof sheathing, extra insulation, indoor occupancy sensors, daylighting techniques, web-based tool for energy monitoring, smart phone apps, 4 megawatt PV	Davis, California	2011	1798	1848	Chevron Energy Solutions
Goes Net Zero Energy Neighbors	1.1 mm	-	2/3	Residential, Mixed-use	1.3 megawatt PV system, 5 mm btu geothermal system, optimize urban density and considered orientation, passive solar homes with air tight envelopes and heat recover ventilators, high in density	Arvada, Colorado	NC	3623	1764	David Kahn Studio - LEED Silver
Center of Excellence at Okanagan College	76,000	-	2	Education	ventilation chimneys, solar tube skylights and sun-tracking light pipes	Kelowna, British Columbia	2011	-	-	Recollective Consulting
North Shore Community College Health and Student Services Building	58,700	-	3	Education	natural ventilation, lighting, green roof, building orientation, chilled beams, geothermal energy technologies and 340 kW PV panels harvesting solar energy, 50-well vertical geothermal closed-loop system. The demand is only 27 kWh per sqft per year (normal: 60 - 80 kWh/year) with the design	Danvers, Massachusetts	2011	4043	1247	LEED Gold
Bullitt Foundation Cascadia Center for Sustainable Design and Construction	52,000	-	6	Office	responsible site selection, 100% water needs provided by harvested rainwater, PV panels	Seattle, Washington	2013	3260	513	LEED Platinum
Electrical and Computer Engineering Building and University of Illinois	120,000	-	3/5	Education, Laboratory	300 kW PV cells, chilled beams system to cool and heat the classroom, occupancy sensors, 8 years payback	Urbana Champaign, Illinois	NC/2013	3625	2062	LEED Gold
Lady Bird Johnson Middle Sch	152,000	764,900	2	Education	Increase insulation, rain water collection, high efficiency glazing, grey water harvesting, energy monitoring, energy star rated kitchen, laptop computers/wireless network, light harvesting/solar shading (light shelf), day light in classrooms, reduction in runoff via permeable paving	Irving, Texas	2011	1112	4473	LEED Gold
NASA Sustainability Base	50,000	-	2	Office	ground-source heat pumps from 72 geothermal wells, cut water usage by 90 percent, solar hot water collectors, data collection	Mountain View, California	2012	1198	932	LEED Platinum
University of South Carolina Darla Moore School of Business	252,000	-	4	Education	green roof, maximize natural light and shade for cooling, pristine air quality and control of heating, air and lighting in each space.	Columbia, South Carolina	NC/2013	1181	3359	LEED Platinum
Richardville Elementary	77,300	-	2	Education	insulated concrete blocks, sensor, active daylighting strategies - solar tubes, light trays, PV panels	Bowling Green, Kentucky	2010	2174	2890	Energy Star/ LEED Gold
Solvix Factory Braunschweig	874,000	-	2	Commercial factory	600 sqm of PV roof, electricity is supplied by a repesed oil combined heat and power plant, solar thermal collectors, daylight via a multitude of skylights	Braunschweig, Germany	2002	-	-	Banz & Riecks Architekten BDA

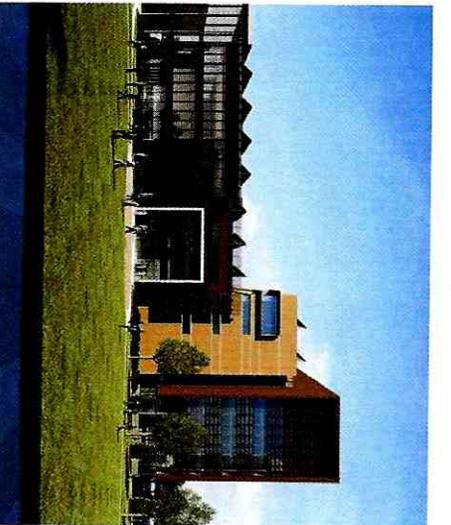
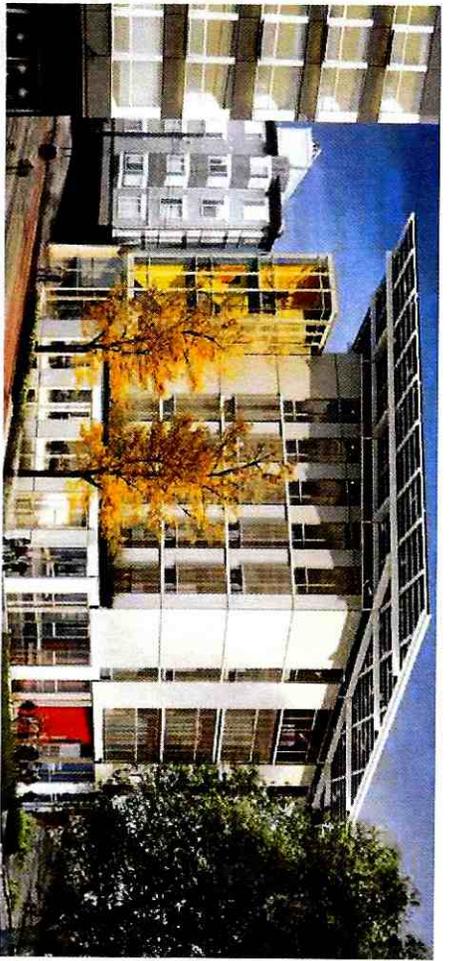
* NC = NOT COMPLETED

* Heating degree days: demand degree days for energy needed to heat a building
 * Cooling degree days: demand degree days for energy needed to cool a building

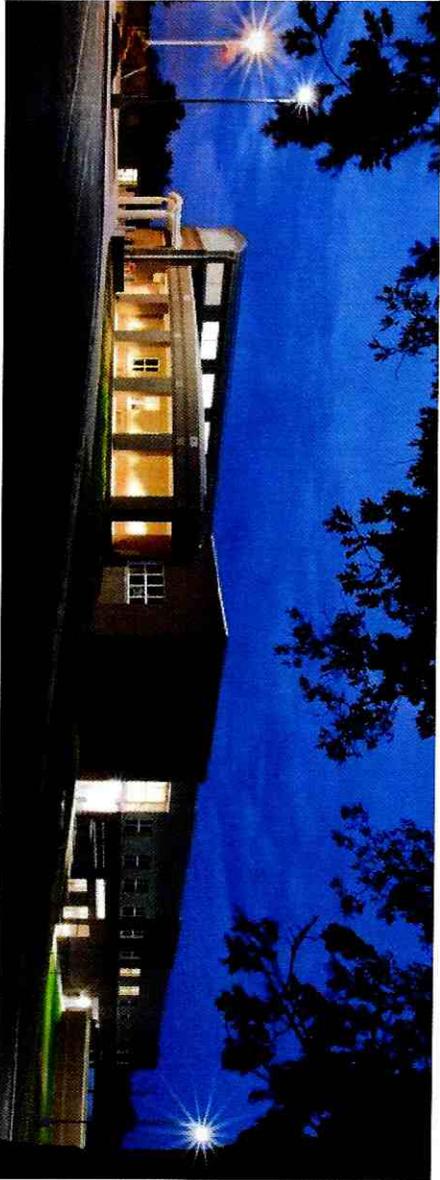
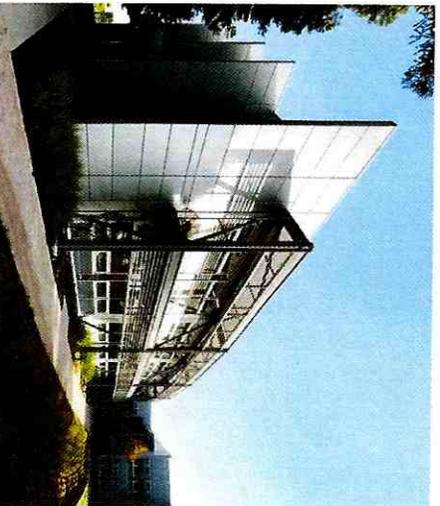
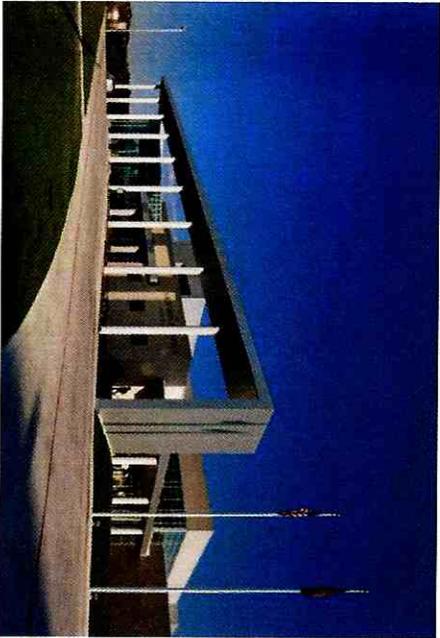


- Left to Right, Top to Bottom**
1. J. Craig Venter Institute
 2. National Renewable Energy Laboratory
 3. Pearl Tower
 4. UC Davis West Village
 5. Goes Net Zero Energy Neighborhood
 6. Center of Excellence at Okanagan College
 7. North Shore Community College Health and Student Services Building





- Left to Right, Top to Bottom**
1. Bullitt Foundation Cascadia Center for Sustainable Design and Construction
 2. Electrical and Computer Engineering Building and University of Illinois
 3. Lady Bird Johnson Middle School
 4. NASA Sustainability Base
 5. University of South Carolina Darla Moore School of Business
 6. Richardsville Elementary
 7. Solvis Factory Braunschweig



The Power of an Example: New Net-Zero Energy Office an Inspiration

Posted: 12/05/2012 2:06 pm

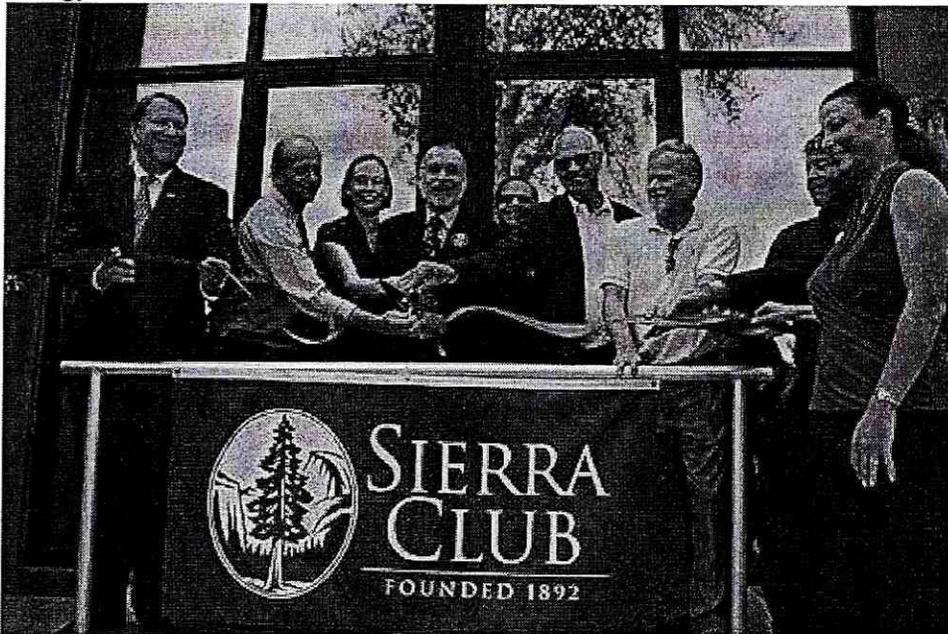
>

[Green Energy](#), [Coal](#), [Energy](#), [Environment](#), [Sierra Club](#), [Net-Zero-Energy-Building](#), [Green News](#)

This week I had the great pleasure of attending the grand opening of the first-ever net-zero energy office in Florida, which will serve as the Sierra Club's state headquarters, and will also house two design firms.

The building is in St. Petersburg, Florida, and it's an inspiring example of the important solutions we need to implement in order to move our country beyond coal and oil. This building goes even farther than relying on clean energy -- the facility makes more energy than it uses.

The ribbon cutting ceremony was a remarkable event, bringing the Sierra Club together with three local Chambers of Commerce, St. Petersburg mayor Bill Foster, senior executives from manufacturing and engineering giant Bosch, and local business owners. With over 100 and numerous local media outlets in attendance, the speakers at the press conference praised the new building as a model for Florida and the nation, and described it as a great boost to the local economy that will help St. Petersburg distinguish itself as a center for innovation and clean energy.



In my speech, I told the crowd that my family was the first in our small town to put solar panels on our home, which inspired our neighbors to go solar, and even our town to consider doing the

same -- and that the new St. Petersburg building would create the same kind of example. I also emphasized that, given the dire threats posed by pollution and climate change, the urgency to make this shift to clean energy could not be greater.

If you're not in St. Pete to check it out, [the building's website](#) offers an excellent and interactive way to learn more about how the builders made it net zero.

Here are the basics of the building:

- Geothermal HVAC
- Energy efficient building envelope (state-of-the-art eco-insulation)
- Solar photovoltaic panels on the rooftop and over the parking lot
- Tankless point-of-use water heaters
- Electric vehicle charging stations
- An extensive recycling program

And, to top it all off, the office is beautiful! I sure wish I got to work there.

Whenever the Sierra Club is looking for new office space, we're always looking for opportunities to make it as sustainable and as carbon free as possible. When our Florida chapter staff were looking around town for a new home, this opportunity presented itself and they jumped on it, because it's so aligned with our values of moving the country beyond coal to clean energy -- plus, it was just as affordable as other real estate in town.

Sierra Club members and staff have been working to make our homes energy efficient and powered by clean energy, and now, our volunteers and staff in Florida can come to work for the clean energy future in an office building that matches our values. We hope that this building will serve as an inspiration and an example for others thinking about construction and renovation in Florida and beyond.

Follow Mary Anne Hitt on Twitter: www.twitter.com/maryannehitt

Cosgrove, Marybeth

ATTACHMENT D

From: Lopez, Donna
Sent: Thursday, August 15, 2013 10:25 AM
To: Cosgrove, Marybeth
Subject: FW: Support Connolly Net Zero Petition

From: Dara Glass [<mailto:daraglass@gmail.com>]
Sent: Thursday, August 15, 2013 4:52 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna
Subject: Support Connolly Net Zero Petition

Please forward this communication to the Planning Board and enter into the Aug 21 Ordinance Committee record.

I support the Connolly Petition requiring renewable energy for large buildings in Cambridge. Considering the huge amount of new construction we are getting in Cambridge, now is the time to start this requirement.

Thank you,
Dara Glass
Edmunds St.

From: Lopez, Donna
Sent: Thursday, August 15, 2013 10:25 AM
To: Cosgrove, Marybeth
Subject: FW: Support Connolly "Net Zero" Petition

From: Torgun Austin [<mailto:torgunaustin@hotmail.com>]
Sent: Thursday, August 15, 2013 2:28 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna
Subject: Support Connolly "Net Zero" Petition

Please forward this communication to the Planning Board and enter it into the August 21 Committee record. Cambridge with its famous educational institutions and activist citizens needs to be a leader in the net zero movement. As a city, we are quickly allowing our available space to be used for massive industrial and research development. Require big pharma and other developers to adhere and build to Net Zero principles.

Sincerely,
Torgun Austin
28 Bristol Street
Cambridge, MA 02141-1908
617-945-1007

From: Lopez, Donna
Sent: Thursday, August 15, 2013 10:26 AM
To: Cosgrove, Marybeth
Subject: FW: SUPPORT the Connolly Net Zero Petition

From: Carolyn [mailto:mc.shipley@verizon.net]
Sent: Thursday, August 15, 2013 12:23 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna
Subject: SUPPORT the Connolly Net Zero Petition

Please forward this communication to the Planning Board and enter it into the Aug. 21, 2013 Ordinance Committee record.

The city of Cambridge proposes building tall buildings of from 140 feet to up to 220 feet, not including mechanicals. The negative effect on the environment from tall buildings is well-documented.

Further, the City of Cambridge holds investments in coal, oil and gas stocks.

The New York Times reported: In recent weeks, college students on dozens of campuses have demanded that university endowment funds rid themselves of coal, oil and gas stocks. The students see it as a tactic that could force climate change, barely discussed in the presidential campaign, back onto the national political agenda.

America will soon witness a nationwide movement by college students protesting the lack of government action to reverse climate change and it will certainly be as powerful as past student protest movements.

While thousands of adults in Cambridge are working to halt climate change, and others contribute money to local environmental groups, Cambridge will see a huge surge in membership in these climate action groups as our college students graduate and continue their climate change activism as Cambridge voters.

If you care about the future of our children and want them, your children, your grandchildren, your nieces and nephews, to have a future in which they can breath the air safely, drink unpolluted water, etc., then I urge you to SUPPORT the Connolly NET ZERO petition.

Yours truly,
M. Carolyn Shipley
15 Laurel St.
Cambridge, MA 02139

Cosgrove, Marybeth

ATTACHMENTG

From: Lopez, Donna
Sent: Thursday, August 15, 2013 10:26 AM
To: Cosgrove, Marybeth
Subject: FW: SUPPORT Connolly "Net Zero" Petition

From: Stuart Moss [mailto:stuartmoss@comcast.net]
Sent: Thursday, August 15, 2013 12:08 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna
Subject: SUPPORT Connolly "Net Zero" Petition

To Whom It May Concern:

Please forward this communication to the Planning Board and enter into the Aug 21 Ordinance Committee record. I happen to be a residential user of Solar Energy, since 1985. I personally see how alternative energy can contribute positively to lowering consumption and the related output of elements that are contributing to the deterioration of our atmosphere. I feel even more strongly that we need to do something to curtail this problem now, even more than I did back in 1985. Do the right thing and support the Net Zero Petition. Thank you.

Sincerely,

Stuart Moss

Stuart Moss
17 Madison Avenue
Cambridge, MA 02140-1614

Cosgrove, Marybeth

ATTACHMENT H

From: Lopez, Donna
Sent: Thursday, August 15, 2013 11:45 AM
To: Cosgrove, Marybeth
Subject: FW: SUPPORT Connolly "Net Zero" Petition

From: fritzdonov@aol.com [<mailto:fritzdonov@aol.com>]
Sent: Thursday, August 15, 2013 11:35 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna
Subject: SUPPORT Connolly "Net Zero" Petition

Dear Councilors and Planning Board:

Please forward this communication to the Planning Board and enter into the Aug 21 Ordinance Committee record.

We are already years behind where we should be in addressing this crucial problem, but this is an excellent, totally practical step forward.

Supporting "Net Zero" is possibly the most important contribution to slowing the Climate Emergency that most of us will ever make. This is because, according to our city's own report, 82% of emissions in Cambridge come from buildings (not cars!).

The "Connolly Petition" is essentially a renewable energy requirement for new buildings over 25,000 Sq Ft. The city is already building the new school on Putnam Ave to be Net Zero and the ten year old Genzyme building in Kendall is nearly Net Zero. Net Zero is do-able and affordable now.

Passing Net Zero now is even more important as we all know of the building boom in Alewife and the bigger boom in Kendall. There are many more giant buildings coming, much bigger than Fawcett Oil (which would have to be Net Zero), and they should all stop contributing to the Climate Emergency.

Sincerely -

Francis Donovan
42 Irving Street
Cambridge 02138 MA

Cosgrove, Marybeth

ATTACHMENT I

From: Lopez, Donna
Sent: Thursday, August 15, 2013 12:54 PM
To: Cosgrove, Marybeth
Subject: FW: Support Connolly NetZero petition

From: @rmen [mailto:carmenp@MIT.EDU]
Sent: Thursday, August 15, 2013 11:56 AM
To: City Council; Paden, Liza; Lopez, Donna
Subject: Support Connolly NetZero petition

Good afternoon,

Please forward this to the planning board and the ordinance committee regarding their meeting on August 21st.

I am strongly in favor of the Connolly petition, not simply because it reflects a continued understanding on the part of our city of the impact that our actions have on the environment. This petition will also go a long way towards making Cambridge the green champion that it is clearly destined to become.

Unfortunately, although the city is leading by example, it is an uncommon business indeed which will choose to spend the money on a benefit which is considered long term.

So I urge you, please carefully consider and then pass the Connolly petition. Those businesses, our city, and everyone in it stand to benefit hugely.

Thank you very much for your consideration.

Warm regards,
Carmen Phillips
57 Madison ave

--

Sent from Kaiten Mail. Please excuse my brevity.

From: Vivek Sikri [vasikri@gmail.com]
Sent: Monday, August 19, 2013 7:39 PM
To: City Council; Lopez, Donna
Subject: Connolly Net-Zero petition

>>
>> Dear Donna,
>>
>>
>>
>> Please enter the following email for the public record for the Connolly petition.
>>
>>

>> Thanks,
>>
>> Vivek

>>
>>
>>
>>

+++++

>>
>>
>>
>> Dear City Council,
>>
>>
>>

>> We have a very bright future here in Cambridge. Our pharmaceutical industry is in a boom bringing with it more housing, local business development and various other benefits to our town. As they say "a rising tide raises all ships." We are faced today with another rising tide, one that is quite literally that, caused by greenhouse gas emissions.

>>
>>
>>

>> As we undergo a building boom that will leave its footprint for the next hundred or more years I think we need to make sure the carbon footprint of these buildings is as small as it can possibly be. While nobody would think of putting a coal-fired factory in Cambridge today it was clearly done in the past, when the prevailing wisdom was different. Times have changed again and buildings that emit greenhouse gases have no place in our urban landscape now and in the future.

>>
>>
>>

>> We claim to be one of the smartest cities in the world and if we don't take a leadership position on the climate change issues that confront our planet who will? Should we wait for Toledo, OH or Tulsa, OK to act

before we do? The realities of climate change have been proven without a doubt. It may already be too late for some low-lying areas. We should not exacerbate the problem by continuing to build giant buildings that emit carbon dioxide and suck up energy when it is completely feasible to build net-zero buildings.

>>

>>

>>

>> An ancillary benefit of net-zero buildings is that when we require the large buildings to be built with energy and emissions in mind we make the technology to do so cheaper. This allows home-owners such as myself to reduce the payback period for things like solar cells and ourselves reduce our carbon footprint. Net-zero isn't just about reducing the carbon footprint of big buildings on the horizon, it is about enabling the little guy to also help in the effort to reduce emissions.

>>

>>

>>

>> Please vote in the positive for the Connolly petition today and help secure a safer tomorrow for Cambridge and the world.

>>

>>

>>

>> Regards,

>>

>> Vivek Sikri

>>

>> 64 Allston St #2

>

>

Lopez, Donna

ATTACHMENT 1K

From: downing.sue@gmail.com
Sent: Monday, August 19, 2013 7:09 AM
To: City Council; Lopez, Donna
Subject: SUPPORT NetZero Petition

Please enter this email in the council record:

I support the Net Zero petition and action. We must each of us do what we can as soon as we can to ensure a better world for our children.

--Sue Downing
Cambridge resident since 1977

Sent from my BlackBerry® smartphone, powered by CREDO Mobile.

From: Susan Ringler [sringle23@hotmail.com]
Sent: Friday, August 16, 2013 2:11 PM
To: City Council; Lopez, Donna
Subject: Support Connolly Petition

letter submitted to ordinance committee 21 aug 2013 hearing

Dear Ordinance Committee Members,

I write to you as a member of Cambridge Committee for Net Zero Buildings to speak on the urgency of climate change, and the vital role you play to ensure that large new buildings in Cambridge are built for the future. These large buildings will be with us for a long time, probably 50 years. I strongly urge you to accept the Connolly net-zero petition so that these buildings will not contribute more greenhouse gases to the atmosphere. We are asking you to adopt this petition because it is an energy performance standard not just an efficient design and construction standard. Building an efficient building is important, but running that building efficiently, for 50 years, without putting more carbon into the atmosphere is the only way we can slow down climate change. That is what a net-zero emissions performance standard does.

- And it can be done in Cambridge. The GenZyme building is one example, the MLKing school could also comply.

I buy 100% renewable energy for my home today for about 10% more than basic NSTAR. The price of renewable energy will come down and the price of fossil fuels will go up. This is affordable today and will save money in the future.

By doing these things, Cambridge can be a leader in climate action. We can support our burgeoning New England renewable industries, and we can continue to attract innovative and cutting edge companies to Cambridge. There is a synergy here.

Please take the long view.

The world will be a very different place in 50 years and our buildings have to reflect that. Net zero buildings are the future and Cambridge can embrace that future. The time to start changing is now. Thank you.

Susan J. Ringler
604 Green St.

Lopez, Donna

ATTACHMENT M

From: Karen [carmean2@yahoo.com]
Sent: Tuesday, August 20, 2013 11:20 AM
To: City Council; Paden, Liza
Cc: Lopez, Donna; Bolduc, John
Subject: Please support the Connolly Net Zero petition

Dear Councillors,

Please pass the Connolly Net Zero petition to make a stand we can make to decrease emissions in Cambridge. Our future and our homes and land and businesses and universities are at stake.

As a former member of the Climate Committee I have known about the likely flooding of our land soon, even WITHOUT climate issues because the east coast is steadily sinking. We must do what we can. Our steps can embolden others. We must speak the truth and not hide what we know to be true.

Thank you

Karen Carmean
1657 Cambridge St. 3
Cambridge MA

Sent from my iPhone

- 1. change.org
- 2. Sign this petition
- 3. Start a petition
- 4. Browse with 30 supporters
- 70 NEEDED

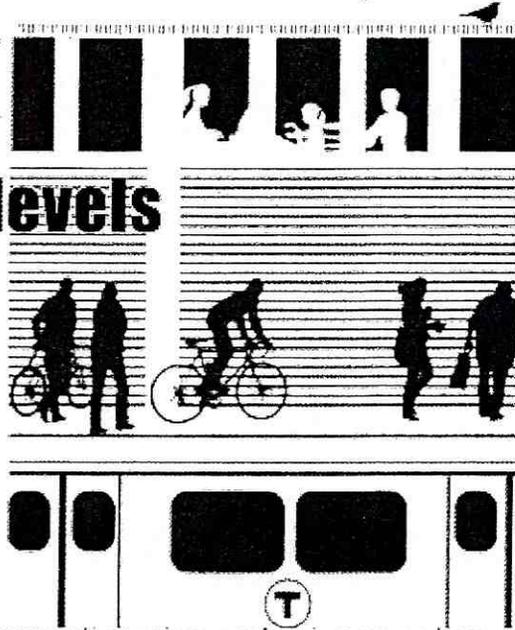
Share on Facebook
 Login or Sign Up

Tweet

SUSTAINABILITY

live green on many levels

Residents of dense urban areas produce as little as a third the amount of greenhouse gasses as their rural and suburban counterparts due to greener modes of transit, smaller dwellings, and more shared resources.



DIVERSITY
 SUSTAINABILITY
 GROWTH
 LIVABILITY
 DIALOGUE

www.abettercambridge.org

Facebook.com/ABetterCambridge
 @ABetterCambridge

Keep me

By signing, you accept Change.org's terms of service and privacy policy.

- Petitioning Councilor David Maher

This petition will be delivered to:

Chairman, Cambridge City Council Ordinance Committee
 Councilor David Maher
 Cambridge Planning Board
 Chairman Hugh Russell
 City Clerk
 Donna Lopez
 Recent signatures

Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition

- Yoni Appelbaum CAMBRIDGE, MA MASSACHUSETTS

1.
 10h.

- Lee Sullivan CAMBRIDGE, MA MASSACHUSETTS

11h A Better Cambridge

2: Joseph Kahan CAMBRIDGE, MA MASSACHUSETTS

^{14h}Multiply Your Impact

• Matt LaRue CAMBRIDGE, MA MASSACHUSETTS

Turn your signature into dozens more by sharing this petition and recruiting ^{15h}people you know to sign.

• James Madden CAMBRIDGE, MA MASSACHUSETTS

YOU
YOUR ^{15h}
FRIENDS

170. Gerry McDonough CAMBRIDGE, MA MASSACHUSETTS
avg.

THEIR ^{16h}
FRIENDS

10,000 Aley Smith CAMBRIDGE, MA MASSACHUSETTS
approx.

^{18h}

• Cheryl Suchors CAMBRIDGE, MA MASSACHUSETTS

^{18h}

• Jonathan Berk BOSTON, MA MASSACHUSETTS

^{18h}

A Better Cambridge believes that eliminating our dependence on fossil fuels should be a primary goal in Cambridge; however the Connolly **Net Zero zoning** currently being considered by the City Council and Planning Board is the **wrong approach** and would do **more harm than good in our community**:

Net Zero affordable, multi-family housing is untested - there is no evidence anywhere in the country that carbon-neutral, higher housing can be achieved in a cost-effective manner that keeps housing costs affordable for all Cambridge families.

Net Zero in Cambridge only ignores the reality of our carbon footprint - Every hundred square feet of development in Cambridge is a hundred square feet not going up along routes 128 or 495. To the extent that this proposal moves new construction away from Cambridge, with its high standards on sustainability, and into surrounding areas, it runs a substantial risk of actually raising the very emissions it proposes to contain.

Keep our money local - Under this proposal developers could meet net zero requirements by paying out-of-Cambridge and out of State energy produces for carbon offsets -- missing the opportunity to direct more funding to local programs like subsidies for conversions of existing buildings and smaller residences.

A better Cambridge is a net zero Cambridge; however, we need to make sure we do it right.

We believe that a **viable approach to serious carbon elimination** in Cambridge relies on a multi pronged strategy that address what we **require of new development** and how we **adapt existing buildings**, with a focus on **multi-modal transportation** throughout. Strategies to consider include:

** Provide additional subsidies to finance energy efficiency upgrades and the use of renewable energy in existing building stock;

** Require more aggressive energy efficiency standards for buildings that phase in fossil fuel reductions and acknowledge the need for market transformation, using standards such as Architecture 2030

** Develop an integrated multi-modal transportation network, connecting our neighborhoods together more effectively and reducing dependency on cars

** Work towards reducing urban heat island effect by implementing zoning and building codes that allow for more cool roofs, green roofs, and urban landscape strategies in Cambridge

** Work towards increasing water retention on building sites, sidewalks, streets, and open spaces to reduce impact of flooding and storm water runoff

** Increase coordination with adjacent cities and communities on developing sustainable transportation networks.

A key achievement of a multi-pronged approach including the elements above would be that **carbon emissions are eliminated** within our city through construction of **better and more efficient buildings**, without at the same time **exporting emissions to communities outside of our borders**.

A Better Cambridge thanks the proponents of the Connolly Petition for challenging our community to take this important look at our carbon footprint in Cambridge.

Unfortunately, we believe that the proposed zoning takes **too narrow an approach** that may **effectively stall the very type of development we should encourage in Cambridge** to really eliminate emissions while addressing key housing/community development needs.

To:

Councilor David Maher, Chairman, Cambridge City Council Ordinance Committee

Chairman Hugh Russell, Cambridge Planning Board

Donna Lopez, City Clerk

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge.

http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board

For this reason, I join with my neighbors and ask you to vote down this proposal and... The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge.

http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board

For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,

[Your name]

Read More Less

News

1. Reached 25 signatures

Supporters

Reasons for signing

- [Most Popular](#)
- [Latest](#)

- Matt LaRueCAMBRIDGE, MA
 - about 10 hours ago
 - Liked0

This petition will not achieve its stated goal, that is to reduce carbon emissions into our shared atmosphere. Instead, it will contribute to sprawl, thereby making the situation worse, for the long run. The imprint of sprawl once constructed, is not as easily rectified as making existing buildings more energy efficient.

REPORT THIS COMMENT:

This comment is ▲
inappropriate ▼

- James MaddenCAMBRIDGE, UNITED STATES MINOR OUTLYING ISLANDS
 - about 10 hours ago
 - Liked0

The environment does not stop on our municipal borders. Let's do this right.

REPORT THIS COMMENT:

This comment is ▲
inappropriate ▼

- Justin SaifCAMBRIDGE, MA
 - about 15 hours ago
 - Liked0

It is one thing to collectively support Net Zero with our tax dollars, as with the MLK school project. However, this petition seems likely to raise the cost of residential development and worsen the affordable housing shortage in Cambridge, with the greatest impact on those members of our community least able to afford it. I have not seen any data from its proponents seriously addressing this concern.

REPORT THIS COMMENT:

This comment is ▲
inappropriate ▼

- Jesse Kanson-BenanavCAMBRIDGE, MA
 - about 15 hours ago
 - Liked0

Please don't pit environmentalism against affordable housing. We need "green" regulations that encourage urban densities, not that only place the cost and burden for citywide emission reductions on large scale, new developments.

REPORT THIS COMMENT:

This comment is 
inappropriate 

- David DowningCAMBRIDGE, MA
 - about 17 hours ago
 - Liked0

Building sustainably is important, but at what cost? The current stretch code already ensures every building will meet LEED certification. Is that the best developers can do? Certainly not. However, in the current environment, Net Zero projects don't make financial sense and should not be a requirement. The effect will be less development, less innovation, fewer people on the streets and living in your City. The Petition is essentially a down-zoning proposal pushed by the minority of residents that feel Cambridge should remain the same. I would hope the City Council and Planning Board make the right decision and vote against the Petition. We still have the ability to achieve great things in this City and push the standards of design/construction while allowing for growth, taller buildings, more restaurants and shops, etc.

REPORT THIS COMMENT:

This comment is 
inappropriate 

- Elizabeth KliineCAMBRIDGE, MA
 - about 19 hours ago
 - Liked0

A more comprehensive approach to carbon emissions reduction is needed. This proposed petition would have negative, unintended consequences on affordable housing -- which is much needed in this city.

REPORT THIS COMMENT:

This comment is 
inappropriate 

- Joseph AielloCAMBRIDGE, MA
 - about 23 hours ago
 - Liked0

While noble in its intentions, the Connolly petition is being backed by some of the worst NIMBY groups in Cambridge just as another way to attack developers and density in this city. Forrest City, MIT, etc. have all been passed against their wishes, so this is just another attempt.

REPORT THIS COMMENT:

- [Sam Stern](#) CAMBRIDGE, MA
 - about 23 hours ago
 - Liked0

We should encourage as much development in a compact, energy-efficient city like Cambridge. This proposal - though right in spirit - would actually discourage development and perversely lead to more CO2 emissions as development moved to less energy-efficient places than Cambridge.

REPORT THIS COMMENT:

- [Joseph Aiello](#) CAMBRIDGE, MA
 - about 23 hours ago
 - Liked0

While noble in its intentions, the Connolly petition is being backed by some of the worst NIMBY groups in Cambridge just as another way to attack developers and density in this city. Forrest City, MIT, etc. have all been passed against their wishes, so this is just their latest attempt.

REPORT THIS COMMENT:

- [Bob Woodbury](#) CAMBRIDGE, MA
 - 1 day ago
 - Liked0

The proposal is likely to have the result, perhaps unintended, of slowing smart growth in Cambridge and making development more expensive - higher costs passed on to both commercial and residential tenants and owners -- poor value for modest benefits.

REPORT THIS COMMENT:

- Request API access

Empowering people everywhere to create the change they want to see.

1. [About](#)
2. [Staff](#)
3. [Jobs](#)
4. [Blog](#)

B CorpWe're proud to be a certified B Corp, using the power of business for social good.

- **Start a petition**

1. [Victories](#)
2. [Tips & Guides](#)

- **Change.org for Organizations**

- **Contact us**

1. [Help](#)
2. [Press](#)
3. [Legal](#)
4. [Advertise](#)

English (United States) ▼

In the press

- [The New York Times](#)
- [CNN](#)
- [Bloomberg Businessweek](#)

© 2013, Change.org Inc. All Rights Reserved.

1. [Privacy Policy](#)
2. [Terms of Service](#)
3. [Ad Guidelines](#)
4. [Developers](#)

Lopez, Donna

From: Allen Penniman [mailto:mail@changemail.org]
Sent: Tuesday, August 20, 2013 2:46 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Allen Penniman Cambridge, Massachusetts

There are now 11 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: David Downing [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 2:47 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
David Downing Cambridge, Massachusetts

There are now 12 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Lori Jobe [mailto:lori@changemail.org]
Sent: Tuesday, August 20, 2013 2:50 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Lori Jobe Cambridge, Massachusetts

There are now 13 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: John Moukad [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 3:04 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
John Moukad Cambridge, Massachusetts

There are now 14 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Edward Mills [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 3:38 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Edward Mills Cambridge, Massachusetts

There are now 15 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: rachael battaglioli [mailto:mail@changemail.org]
Sent: Tuesday, August 20, 2013 4:28 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
rachael battaglioli cambridge, Massachusetts

There are now 16 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Jesse Kanson-Benanav [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 4:59 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. [http://www.abettercambridge.org/letter to cambridge city council planning board](http://www.abettercambridge.org/letter%20to%20cambridge%20city%20council%20planning%20board) For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Jesse Kanson-Benanav Cambridge, Massachusetts

There are now 17 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Justin Saif [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 5:09 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Justin Saif Cambridge, Massachusetts

There are now 18 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: paula te [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 6:24 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. [http://www.abettercambridge.org/letter to cambridge city council planning board](http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board) For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
paula te cambridge, Massachusetts

There are now 19 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Jonathan Berk [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 6:55 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. [http://www.abettercambridge.org/letter to cambridge city council planning board](http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board) For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Jonathan Berk Boston, Massachusetts

There are now 20 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Cheryl Suchors [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 7:51 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Cheryl Suchors cambridge, Massachusetts

There are now 21 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Eleanor Hammill [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 7:54 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Eleanor Hammill Cambridge, Massachusetts

There are now 22 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Caley Smith [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 7:59 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Caley Smith Cambridge, Massachusetts

There are now 23 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Gerry McDonough [mailto:mail@changemail.org]
Sent: Tuesday, August 20, 2013 8:57 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Gerry McDonough Cambridge, Massachusetts

There are now 24 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: James Madden [mailto:mail@changemail.org]
Sent: Tuesday, August 20, 2013 9:54 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
James Madden Cambridge, Massachusetts

There are now 25 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Matthew LaRue [mailto:mail@changemail.org]
Sent: Tuesday, August 20, 2013 10:07 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Matthew LaRue Cambridge, Massachusetts

There are now 26 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Joseph Kahan [mailto:changemail.org]
Sent: Tuesday, August 20, 2013 11:19 PM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Joseph Kahan Cambridge, Massachusetts

There are now 27 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Lee Sullivan [mailto:changemail.org]
Sent: Wednesday, August 21, 2013 12:53 AM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Lee Sullivan Cambridge, Massachusetts

There are now 28 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Yoni Appelbaum [mailto:changemail.org]
Sent: Wednesday, August 21, 2013 2:00 AM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,

Yoni Appelbaum Cambridge, Massachusetts

There are now 29 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Pam Boland [mailto:changemail.org]
Sent: Wednesday, August 21, 2013 4:35 AM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. [http://www.abettercambridge.org/letter to cambridge city council planning board](http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board) For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Pam Boland Grovetown, Georgia

There are now 30 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



Lopez, Donna

From: Jeremy Rothman-Shore [mailto:changemail.org]
Sent: Wednesday, August 21, 2013 7:56 AM
To: Lopez, Donna
Subject: I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge. http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Jeremy Rothman-Shore Cambridge, Massachusetts

There are now 31 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>



I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Benjamin Solomon-Schwartz [mailto:changemail.org]

Sent: Wednesday, August 21, 2013 4:54 PM

To: Lopez, Donna

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge.

http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,
Benjamin Solomon-Schwartz Cambridge, Massachusetts

There are now 32 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition?response=8751aaf8a079>

I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Vig Krishnamurthy [mailto:mail@changemail.org]

Sent: Wednesday, August 21, 2013 10:19 PM

To: Lopez, Donna

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge.

http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,

Vig Krishnamurthy Chicago, Massachusetts

There are now 33 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition/responses/new?response=8751aaf8a079>

I just signed "Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition"

Xavid Pretzer [mail@changemail.org]

Sent: Wednesday, August 21, 2013 11:35 PM

To: Lopez, Donna

Dear Donna Lopez,

I just signed A Better Cambridge's petition "[Cambridge Planning Board: Vote NO on Connolly Net Zero zoning petition](#)" on Change.org.

The Connolly Net Zero proposal, however well-intentioned, is a narrow, inadequate and potentially harmful approach to eliminating carbon emissions in Cambridge for the reasons described in the statement by A Better Cambridge.

http://www.abettercambridge.org/letter_to_cambridge_city_council_planning_board For this reason, I join with my neighbors and ask you to vote down this proposal and give our community the chance to design broad and effective sustainability measures.

Sincerely,

Xavid Pretzer Somerville, Massachusetts

There are now 34 signatures on this petition. Read reasons why people are signing, and respond to A Better Cambridge by clicking here:

<http://www.change.org/petitions/cambridge-planning-board-vote-no-on-connolly-net-zero-zoning-petition/responses/new?response=8751aaf8a079>

Lopez, Donna

ATTACHMENT 0

From: jessekb@gmail.com on behalf of Jesse Kanson-Benanav [jesse@abettercambridge.org]
Sent: Wednesday, August 21, 2013 10:20 AM
To: City Council; Lopez, Donna
Subject: Please Vote NO on Connolly Net Zero Petition
Attachments: ABC Letter to Ordinance COmmittee re Net Zero Petition.pdf

Dear Councilor Maher,

Please find a letter from A Better Cambridge attached to this email, detailing our opposition to the Connolly Net Zero Petition. We believe more broad-based and effective measures are needed to truly curb carbon emissions in Cambridge, and the current Net Zero zoning petition puts at risk our ability to create the very type of higher density mixed residential and commercial buildings we need to encourage around transit in Cambridge to seriously address our affordable housing crisis.

Thank you for considering our position. We respectfully ask that you vote no on this petition.

Jesse Kanson-Benanav

Chairman, *A Better Cambridge*

jessekb@abettercambridge.org | [@jessekb](https://www.facebook.com/jessekb) | 617.863.0552

www.abettercambridge.org | [fb.com/ABetterCambridge](https://www.facebook.com/ABetterCambridge) | [@ABetterCambMA](https://www.facebook.com/ABetterCambMA)



A Better Cambridge
26 Willow St
Cambridge, MA 02141

Jesse Kanson-Benanav, Chair

Leadership Committee:
Yoni Appelbaum
Randa Ghattas
Esther Hanig
Saul Tannenbaum

August 21st, 2013

Councilor David Maher, Chair
Ordinance Committee
Cambridge City Council
795 Massachusetts Avenue
Cambridge, MA 02139

Dear Councilor Maher:

On behalf of the members of A Better Cambridge, I am writing to ask you to vote NO on the Connolly Net Zero proposal.

The members of A Better Cambridge thank the proponents of the Connolly Net Zero Petition for provoking such an important discussion about climate change adaptation in Cambridge. The Connolly Petition has challenged our community to take a serious look at how we will eliminate consumption of fossil fuels and promote alternative energy use across the city of Cambridge.

A better Cambridge is a net zero Cambridge. Eliminating carbon emissions should be a primary goal in Cambridge. We believe that a viable approach to serious energy efficiency in Cambridge relies on a multi-pronged strategy that addresses what we require of new development and how we adapt existing buildings, with a focus on multi-modal transportation throughout. A key achievement will be that carbon emissions are reduced within our city through construction of better and more efficient buildings, without at the same time exporting emissions to communities outside of our borders.

Elements of a broad and effective plan to tackle carbon emissions in Cambridge should include:

- Providing additional subsidies to finance energy efficiency upgrades and the use of renewable energy in existing building stock;
- Requiring more aggressive energy efficiency standards for buildings that phase in fossil fuel reductions and acknowledge the need for market transformation, using standards such as Architecture 2030;
- Developing an integrated multi-modal transportation network, connecting our neighborhoods together more effectively and reducing dependency on cars;
- Working towards reducing urban heat island effect by implementing zoning and building codes that allow for more cool roofs, green roofs, and urban landscape strategies in Cambridge;
- Working towards increasing water retention on building sites, sidewalks, streets, and open spaces to reduce impact of flooding and storm water runoff; and
- Increasing coordination with adjacent cities and communities on developing sustainable transportation networks.

A key achievement of a multi-pronged approach including the elements above would be that carbon emissions are reduced within our city through construction of better and more efficient buildings, without at the same time exporting emissions to communities outside of our borders.

While taking this serious and long-overdue look at building efficiency in Cambridge we can't also lose sight of important community development

challenges facing our city. The cost of rent continues to rise in Cambridge, and condos here are being sold for hugely inflated prices. Promoting the development of more mixed residential and commercial buildings around Cambridge's existing transportation hubs is a key strategy in our ability to make housing more affordable for all people in Cambridge. We have serious concerns that the Connolly Petition's narrow focus on large scale new development will hurt our ability to create the new affordable low- and middle-income housing that is now so desperately needed to keep Cambridge a diverse and sustainable community.

When it comes to housing, most research and practice-based evidence into the feasibility of cost-effective net zero housing applies to low-density, single-family homes in moderate climates like California. This is not the type of new housing we should expect or hope for in Cambridge, and there is insufficient evidence to make any conclusions about the feasibility of developing net zero multifamily housing here. This places at risk the viability of important projects like housing at the Sullivan Courthouse, for which residents of East Cambridge have been fighting. If the Cambridge Housing Authority development currently planned for Temple Street were subject to the requirements of the Connolly Petition, it almost certainly would not go forward.

In a 2012 study "Think Bigger: Net-Zero Communities" the authors, who represent the Alliance to Save Energy, the Urban Land Institute, and the U.S. Department of Energy, effectively argue that "achieving net-zero energy across an entire building stock requires looking beyond individual buildings and considering net-zero at a community scale." They state that it might not be feasible to achieve net zero energy in every building – this might be more realistic for buildings to be evaluated together. Multi-building systems offer opportunities for lower energy use through heat sharing and load diversity. Drawing a larger perimeter around multiple buildings and adjacent open space allows us to consider "nearby" renewable energy sources thus keeping buildings and urban densities in the net zero mix.

As the study goes on to explain, we need an approach to net-zero that allows for the diversity of building types, uses, and climates and also one that will not dilute urban density in favor of low-rise sprawl. We believe these points are wholly missed in the Connolly Petition's approach to net zero.

Focusing only on new development, even of substantial square footage, will seriously limit the impact of the Connolly Petition. New construction is small compared to our existing building stock, and anything built after 2010 must comply with Cambridge's stretch code — energy efficiency standards which have effectively increased the stock of highly energy efficient commercial, residential and institutional buildings in Cambridge without negatively impacting our progress towards key social goods like affordable, multi-family housing.

It would be important to tackle this in a more robust and holistic fashion: require developers to meet "Architecture 2030" goals for new buildings, a program that phases in fossil fuel reductions while, more importantly, targeting our biggest consumers of energy — our existing building stock. For example, this could be accomplished by specifically allocating community benefit funds awarded under new development to support greater energy efficiency conversion subsidies in Cambridge's existing building stock. Under the Connolly Petition developers could meet net zero requirements by paying for carbon offsets — while missing the opportunity to direct more funding to key community and economic development opportunities.

From a carbon emissions reduction standpoint, Cambridge is a great place to build. Every hundred thousand square feet we add here is a hundred thousand square feet that's not going up along Routes 128 or 495. Even a net-zero building in a suburban office park is likely to generate a far more negative impact on the climate and the environment than a building in Cambridge that complies with our

currently applicable codes and regulations. Suburban construction often involves leveling greenspace and removing acres of carbon-absorbing vegetation. Storm runoff is unlikely to be carried through a separated system, as in much of Cambridge; instead, it is likely to be mixed with sewage, and treated in an emissions-intensive process. Connecting the new structure to roads and utilities generates additional impacts. Workers are far more likely to commute by car, pumping out carbon emissions, and accommodating their vehicles requires additional construction. Of course, no other local town is proposing to require net-zero construction; few even approach Cambridge's current sustainability standards. The actual choice facing many developers is between meeting Cambridge's rigorous standards, or taking advantage of the relatively lax rules imposed by most suburban communities. As we work to reduce carbon emissions, it makes sense to keep this broader picture in mind.

Any comprehensive plan to tackle carbon emissions in the Commonwealth would involve incentivizing developers to site their buildings along public transportation networks and proximate to dense residential areas. The Connolly petition, although clearly well-intentioned, seems likely to raise the cost of new development in Cambridge relative to surrounding communities, having the contrary effect. All carbon emissions, whatever their point of origin, have the same impact on our community and our environment. To the extent that this petition moves new construction away from Cambridge, with its high standards on sustainability, and into surrounding areas, it runs a substantial risk of actually raising the very emissions it proposes to contain. We do not believe that this is the outcome the petition seeks, nor do we think it is an outcome that most residents desire.

Focusing on net zero and energy efficiency only neglects the importance of addressing climate change adaptation holistically: in addition to energy efficiency of new buildings and existing buildings, we need to focus on other key climate mitigation strategies such as addressing water resources, resilience planning and mitigation, and innovative and integrated transportation strategies and policies that will effectively move people from their cars into alternative, low- or no-emissions transportation options.

Again, A Better Cambridge thanks the proponents of the Connolly Petition for challenging our community to take this important look at our carbon footprint in Cambridge. Unfortunately, we believe the proposed zoning takes a far too narrow approach that may effectively stall the very type of development we need to actually reduce emissions while addressing key housing/community development needs here in Cambridge.

Please vote no on the net zero petition.

Sincerely,

Jesse Kanson-Benanav, Chair
On Behalf of the members of **A Better Cambridge**

ATTACHMENT P

To Ordinance Committee: strongly supporting the Net Zero proposal

Martha Older [active@ureach.com]

Sent: Wednesday, August 21, 2013 3:01 PM

To: City Council; Lopez, Donna

Cc: martha [active@ureach.com]; no.money.connolly@gmail.com

I can't get to today's hearing, so I am sending this to strongly support the Net Zero proposal. This is an important, substantive and innovative addition to the City's efforts to be as green as possible. If we are to do this in a meaningful way, we need to limit fossil fuel use and support renewables. This City is known as a leader; here is another, easy way in which we can continue to do so.

This relates to the climate change crisis, of course, which must be tackled in many, many different ways. Solving that crisis is quite literally the sine qua non, and thus the most important single thing we can do. (If we don't get them right, we can solve other things later if must be; but not climate change.) I strongly hope we will agree to the Net Zero idea.

Thank you for considering this,

/Martha Older

ATTACHMENT Q

August 21, 2013

The Honorable David Maher, Chairman
Ordinance Committee
795 Massachusetts Avenue
Cambridge, MA 02139

RE: Connolly Petition to require certain projects to be built as net zero energy

Dear Chairman Maher & Members of the Ordinance Committee:

On behalf of the over 8,000 members of the Greater Boston Real Estate Board (GBREB) including over 250 members from the City of Cambridge we respectfully oppose the proposed Connolly Petition to amend the Zoning Ordinance to require certain projects to be built as net zero energy.

The Greater Boston Real Estate Board is the oldest Real Estate Trade Association in America founded in 1889. GBREB is comprised of five groups both residential and commercial. Our membership is diverse, comprised of publicly traded companies, including some of the largest developers of commercial and rental properties in the nation, as well as small independently owned businesses-including financial institutions and banks. Our members have the expertise to finance, construct, broker and manage any type of real estate asset imaginable and they have worked hard to adopt environmentally sustainable practices.

Our members are committed to improving the energy efficiency of our commercial and residential buildings. Despite the industry's willingness to move in this direction, current economic conditions have made this increasingly difficult. In the last three years alone owners developers have been subject to three aggressive statewide building code changes the 8th Edition MA Energy Code, Stretch Energy Code and IECC 2012. These code changes have added over \$16,000 to the cost of a single family home with a prolonged payback period lasting several years. The cost impact of the 2009 and 2012 IECC on multifamily apartment construction will add an estimated \$632 per unit to a low rise apartment building and over \$2,900 to the cost per unit of a high rise building. GBREB supports energy efficiency however we also support the production of much needed affordable housing and economic development for the commercial real estate industry.

The City of Cambridge can and should be proud of the work they have done to encourage greater energy conservation and efficiency. We urge you to carefully consider all of the technological limitations and economic implications of this proposal and urge you to reach out to additional stakeholders to solicit information. We would welcome the opportunity to participate in this process.

Thank you for the opportunity to submit comment. Please do not hesitate to contact GBREB's Director of Government Affairs, Patricia Baumer at pbaumer@gbreb.com if you have any questions.

Sincerely,



Gregory P. Vasil, Esq.
Chief Executive Officer
Greater Boston Real Estate Board

Robert M. Brierley
Chairman

Gordon Pulsifer
Chairman-Elect

Richard Beal
Treasurer

Kristin Blount
Clerk

Gregory P. Vasil
Chief Executive Officer

Questions I have about Net Zero

Craig Kelley [craigkelley62@verizon.net]

Sent: Wednesday, August 21, 2013 7:32 PM

To: Peterson, Lisa; Rossi, Rich

Cc: Maher, David; Lopez, Donna; Mike Connolly [big.mike.connolly@gmail.com]; John Pitkin [john_pitkin@earthlink.net]; Gary Dmytryk [dmytryk@gmail.com]

All:

I think it would be useful to have a better understanding of the following issues before our next Connolly Petition meeting:

- Do we have the legal authority to require all parts of the petition? Are there some things we can require and some we can't?
- What do we all mean by "Net Zero?" Is the King School really "Net Zero?"
- Are the Genzyme numbers for their energy costs their numbers? If so, will they say so publically?
- What would the difference be in emissions between current stretch code requirements and Connolly petition buildings?
- What are generally accepted on-site energy production expectations for the sorts of buildings that we're talking about being covered by this petition?
- Are there enough RECs and renewable options to cover the difference?
- An explanation of how RECs work
- An analysis of if we think we'll lose buildings to toher areas and why that might or might not happen.

Thanks a lot.

Craig