



# **Zoning & Planning and Public Facilities Committee**

## **Joint Meeting Report**

### **City of Newton** **In City Council**

**Monday, August 26, 2019**

Zoning & Planning Councilors Present: Albright (Chair), Danberg, Leary, Krintzman, Downs, Brousal-Glaser, Baker and Kalis.

Public Facilities Councilors Present: Crossley (Chair), Leary, Norton, Kelley, Laredo, Lappin and Danberg. Absent: Gentile.

Councilors Also Present: Schwartz, Greenberg and Noel.

City Staff Present: Ruthanne Fuller (Mayor), Jonathan Yeo (COO), Barney Health (Director of Planning & Development), James Freas (Deputy Director of Planning), Claire Rundelli (Asst. Environmental Planner), Ann Berwick & Bill Ferguson (Co-Directors Sustainability)

Guests: Halina Brown (Chair-Newton Citizens Commission on Energy), Members of the Community Preservation Committee; Mark Armstrong (Chair/Historical Commission), Peter Sargent (Community Housing)

**#275-19      Appointment of Carol Todreas to the Urban Design Commission**

HER HONOR THE MAYOR appointing CAROL TODREAS, 89 Windsor Road, Waban, as a member of the URBAN DESIGN COMMISSION for a term to expire August 15, 2022.

**Action:**      **Zoning & Planning Approved 5-0 (Not Voting, Brousal-Glaser, Baker, Kalis)**

**Note:**      Councilors were unanimously in favor of appointing Ms. Todreas to the UDC and were confident her experience in retail development would make a sound contribution to the City.

**#276-19      Appointment of Robert Linsky to the Urban Design Commission**

HER HONOR THE MAYOR appointing ROBERT LINSKY, 99 Walnut Hill Road, Newton Highlands, as a member of the URBAN DESIGN COMMISSION for a term to expire August 15, 2022.

**Action:**      **Zoning & Planning Approved 5-0 (Not Voting, Brousal-Glaser, Baker, Kalis)**

**Note:**      Councilors were unanimously in favor of appointing Mr. Linsky to the UDC and were confident his experience and mindset would make a solid contribution to the City.

**#191-19 Ordinance amendment relative to Community Preservation Act and Committee COUNCILORS LAPPIN, ALBRIGHT, CROSSLEY, LEARY AND DOWNS** requesting amendments to Chapter 7, Section 81 of the City of Newton Ordinances, to better define the membership of the Community Preservation Committee, to clarify oversight, and to include City approval procedures required by the 2012 update to MGL Chapter 44B, Section 5(d), the Community Preservation Act.

**Action:** **Zoning & Planning Held 5-0 (Not Voting, Brousal-Glaser, Baker, Kalis)**

**Note:** The Committee Chair defined the goals and reasoning behind this amendment in Article VIII Community Preservation Committee (CPC). A new redlined version was available. She described the primary redesign was due to the initial composition of membership to the committee during its inception pairing expertise with ward of residence. Additional adjustments were also made, including stronger participation and input from the committee on staffing. She noted the difficulty in finding people with the required pairing of residence and residence on the CPC.

A Councilor noted the impending retiree, Alice Ingerson (Community Preservation Program Manager), had done a wonderful job and her successor will need to be independent and have familiarization in order to address the needs. It was also referenced that the position has not been downgraded, although salary will likely be decreased because the new person will start at a lower step. The Councilor also wanted to ensure CPA monies are used appropriately and not merged with general funds, as other communities have done. Newton is one of the few communities with full time staff and CPC agrees that it is important to participate in staff selection. Another councilor agreed that the CPC program should have autonomy, and that they should have authority to participate in the interviewing and hiring process, with approval privileges.

Mr. Heath further highlighted changes proposed by City Administration. In his experience, most groups who review final candidates tend to run smoothly, with a consensus outcome. He is concerned that having a citizen's committee involved in the decision-making process for a city staff position could set precedent for other committees. He mentioned other positions that are funded by outside monies, CBDG for example, but committee members do not participate in various new hires. He is aware of the CPC uniqueness and feels the language is very close. They will be searching for the highest caliber applicant to fill Ms. Ingerson's role and anticipate Ms. Ingerson will be able to provide mentoring to the new hire.

Mark Armstrong and Peter Sargent were appreciative for the support of the Councilors who are involved to make the necessary revisions. They are in favor of the changes and look forward to confirmed updates.

**Referred to Public Facilities and Zoning & Planning Committees**

**#143-19**      **Discussion/Adoption of Climate Action Plan/Citizens Climate Action Plan**  
COUNCILORS ALBRIGHT AND CROSSLEY on behalf of the Zoning & Planning and Public Facilities committees, requesting discussion and adoption of items within the Climate Action Plan and the Citizen’s Climate Action Plan with the Sustainability Directors, Climate Action Planning team led by Jennifer Steel (Planning Department staff, MAPC and volunteers) and the Citizens' Commission on Energy. The focus will be to understand the synergies between the two complimentary plans and how items within the plans can be integrated to achieve the significant reductions in greenhouse gas emissions called for in recent national and international reports.

**Action:**      **Zoning & Planning Committee Held 8-0**  
**Public Facilities Committee Held 7-0**

**#13-19**      **Adoption of the Climate Action Plan**  
DIRECTOR OF PLANNING requesting discussion and adoption of the Climate Action Plan as an amendment to the 2007 Comprehensive Plan.

**Action:**      **Zoning & Planning Committee Held 8-0**

**Note:**            The Zoning and Planning Committee and Public Facilities Committee met jointly to discuss items #143-19 and #13-19. Her Honor The Mayor opened the meeting to implore the community to efficiently work together to care for our environment. She referenced that the numerous heat days and increased algae at Crystal Lake are some of the serious changes we are experiencing locally. Mayor Fuller expressed her appreciation to the full gallery of residents, City Councilors, representatives from the Newton Citizens Commission on Energy (NCCE), Planning & Development Department and Sustainability. She explained the 2 plans scheduled for the evening on climate action complement each other with similar philosophies, expectations and outcomes. The NCCE 30 Year Roadmap to a Carbon-Free Newton and the City’s Climate Action Plan delegates had communicated throughout the evolution of the plans so that they intentionally aligned. Having a shared deep concern and working collaboratively is important to Newton moving forward and it is evident all parties involved are committed and passionate. She values the knowledge of the professionals and looks forward to the community progressing to energy neutrality with proper education and implementational ideas.

Halina Brown provided the first presentation on the Citizens Climate Action Plan (ppt attached). She described the goal of the NCCE since the 1979 Charter. It is stated that the Commission shall develop a city-wide energy plan to encourage energy conservation and the use of alternative energy forms. The NCCE shall also report on its activities to the Mayor and the City Councilors when so requested or on its own initiative to file appropriate legislation.

Ms. Brown mentioned key factors of implementation to achieve a feasible goal of zero Greenhouse Gas (GHG) emissions by 2050. This 30-year roadmap will target the 3 major sectors; residential buildings, commercial buildings and transportation. Many elements are used in creating the

responsible plan and consist of numerical goals and metrics, incentives, technologies and the education to assume new policies and procedures. To excite the community, Ms. Brown expressed the need to incentivize residents with thoughtful and creative ideas to reduce energy demands through a motivating factor.

She presented many proposals including the following: aim for all electric heating and all electric transportation using 100% Class 1 New England renewables, retrofit old homes to be energy efficient and build new constructions with passive house performance standards. Ms. Brown also mentioned that homes torn down each year and mixed-use developments before the Council could use the passive house standards of electric heating and heat pumps, not gas; these standards could be future requirements in the Special Permit realm. We should create an ordinance to require contractors to provide electric options for all heating replacements. We must also provide education to developers, builders and homeowners so the community can make smart choices. Another proposal was to give preferential treatment to citizens who purchase electric vehicles (EV), such as free parking at municipal lots. Ms. Brown outlined comprehensive ideas for marketing campaigns, training endeavors, an MOU with NGRiD and Eversource which would involve co-branding in marketing campaigns. She also stated that a Climate Action Services Office, staffed with an expert Energy Assistance Manager should be created. Adopting these methods will lead to a carbon free Newton by 2050.

Ann Berwick presented the City's Climate Action Plan (ppt attached) also with the intent of carbon neutral by 2050 with a 5-year City Plan (2020-2024). This plan's motto is 'Use Less (high-efficiency), Green The Rest (clean energy). She stated that we need extensive education, regulation, incentives and collaborations to transform transforming our community . Ms. Berwick cited that buildings and transportation create most Greenhouse Gas (GHG), this is a norm. She spoke of principles in municipal implementation and that a great deal has already been accomplished by the city (listed in the plan). She explained that Capital Improvement Plan (CIP) planning process will incorporate climate mitigation metrics and will reflect our goals by allocating resources to address climate needs.

Ms. Berwick defined clean electricity and some of the selected recommended actions to transform major projects and oversee implementation. She went on to say that all major construction developments at this time need to be more conscious and adopt renewable energy technologies. The possibility of an Energy Coach role would serve the community well and she mentioned a 'Green Ribbon Commission' as a potential working group. She noted that the city will be installing solar panels on 17 more buildings in Newton bringing the total to 29. The goal is to have more municipal, commercial and residential buildings with solar. She informed that Newton's PowerChoice is at 60% standard level, the highest of any municipal aggregation program in the Commonwealth. There have been several communities who have asked for consultation regarding Newton's PowerChoice program.

Ms. Berwick referenced greening transportation alternatives and having more EV's on the roadways as they are prevalent in Europe. She also stated that more walking, biking and encouraging is a goal in common with the citizen's plan. She explained that we need to make citizens aware of these logical changes and we need to make changes to our infrastructure to make this possible. We will look for and disseminate incentive programs that are available to residents.

Ms. Brown and Ms. Berwick fielded questions jointly. They were complemented and praised by all Councilors. A Councilor asked how historic preservation will be addressed. Ms. Brown proposed an ordinance that will allow historic structures to utilize green options. One Councilor suggested more education to the Council in addition to the community. He inquired if in fact it was legal to allow subsidies by way of real estate taxes as had been proposed in the citizens' plan, for implementing electric renewables and energy improvements. Mr. Yeo affirmed that it is disallowed to offer differential taxation. It was researched and confirmed by the Law Department that the State views it as unconstitutional. The Councilor mentioned perhaps there are other incentives that could be devised as an offset. A Councilor also asked even though we have electric energy options, shouldn't citizens still try to conserve instead of overusing. Ms. Berwick stated we should discourage excessive uses, as there is even embodied carbon in solar panels. Conservation is always key. A Councilor stated the electric Tesla is being used as a fleet of Taxi's in Europe, endorsed via the Municipal Government in Amsterdam and currently they use 110 Tesla vehicles. The Councilor feels similar programs can be implemented and asked for clarification on benchmarking and comparisons to different occupancies; citing small unit with one occupant v family of 5 in a 3000 square foot house. Ms. Brown answered there are 2 variables to benchmark and compare; energy use per square foot and occupants within the residency. A Committee Chair stated they look forward to refinement to the plans and realize the City needs clear priorities. They would like to see quantitative goals on a timeline to visually see what is being addressed and to have the ability to vet new innovative ideas as they are introduced, so there is no lag time.

A Councilor asked whether all new construction should meet the passive house standard and both presenters agreed yes, to the absolute legal limit, especially enforced through Special Permits. Ms. Brown's hope is that within 10 years contractors and developers will automatically execute the passive house standard. One Councilor mentioned in the NCCE plan they were able to see a trackable sense of robust actions to help the City as well as residents and businesses towards the 2050 goal. She felt it was not as clear in the City's plan. Ms. Berwick assured that it may not have been as thoroughly articulated, but in fact, the same actions are intended and within the scope of planning. She reiterated the Green Ribbon Commission, EV working group task force to work with Green Newton and to communicate educational philosophies and diligence to citizens.

Ms. Brown confirmed that the resources and funding should be available for an overall marketing plan which would be of enormous benefit. A Councilor asked Ms. Berwick about the embodied carbon and the degree to which there is still exposure to emissions due to embodied carbon in production of goods. She explained the carbon levels are not available at that moment Ms. Brown mentioned 70% of cars in Newton are larger SUV's and that homes in Newton tend to be large.

The Councilor replied we should define the numerical differences between SUV's and EV's to educate the community. One Councilor mentioned the school busses use diesel fuel and are still idling in front of the schools. We need electric school busses. A Councilor expressed that the Green Energy Coach position is vital and asked if it is budgeted. It is not.

The next draft of the plans will be presented to ZAP in October and a public hearing is planned for November.

**#14-19      Zoning amendment to require solar system installation**  
COUNCILORS ALBRIGHT, CROSSLEY, KRINTZMAN, NORTON, BROUSAL-GLASER, DOWNS, LAPPIN, DANBERG, LIPOF, NOEL, LEARY, MARKIEWICZ AND KELLY requesting an amendment to Chapter 30, Newton Zoning Ordinance, to require solar system installation in certain new construction projects greater than 10,000 square feet.

**Action:**      **Zoning & Planning Committee Held 8-0**

**#245-19      Amend zoning ordinance special permit criteria related to energy conservation**  
COUNCILORS CROSSLEY AND ALBRIGHT seeking a review and possible amendments to Section 7.3.3.C.5 of Chapter 30, Newton Zoning Ordinance, to further inform the objectives of reducing energy consumption and limiting use of natural resources, consider reducing the threshold for compliance to apply the requirement to buildings 10,000 sq. ft. and larger.

**Action:**      **Zoning & Planning Committee Held 8-0**

**#518-18      Discussion and review relative to the draft Zoning Ordinance**  
DIRECTOR OF PLANNING requesting review, discussion, and direction relative to the draft Zoning Ordinance.

**Action:**      **Zoning & Planning Committee Held 8-0**

**Note:**      The Committee discussed items #14-19, #245-19, #518-18 together. Mr. Freas presented a series of areas (ppt attached) where ordinances can be improved to mitigate climate change, including reducing barriers to environmental building improvements, requirements for sustainable buildings and site design, solar panels, EV charging stations and new special permit criterion. After providing specific examples in each of these areas he focused on considerations including the costs and reasonableness of proposed requirements, staff capacity for review – both staff time and expertise, and legal limits of our work. Mr. Freas discussed next steps which include discussions with a variety of individuals and groups including Newton developers, high-performance building professionals, and planning and ISD staff. He plans to bring this discussion back to the Committee at its meeting on October 16.

A Councilor inquired the effectiveness of solar panels and raised a concern about their meeting the noise ordinance. A Councilor inquired about Special Permit Criterion 5 and what could be done right now to make it stronger. Another Councilor asked about EV preferential parking lined spaces

in municipal lots without the charging station as a commendation for utilizing green energy. This will have to be discussed with Traffic Council.

A Councilor explained it is imperative to use affirmative language for those applying for Special Permit, that they are required to comply with standards such as passive house. The Councilor also asked about who would do the sustainable design analysis. Another Councilor wondered if LEED may be an obsolete standard and perhaps passive house should be the only option. Mr. Freas concurred and described LEED as being less focused in energy efficiency and that passive house is more in the pathway to Newton's goal. A Councilor recommended immediately informing builders and developers as to future changes and requirements.

**Respectfully Submitted,**

**Susan S. Albright, Chair**

# 30 Year Roadmap to a Carbon-free Newton

Presentation before the Committees on Public  
Facilities, and Zoning and Planning of Newton  
City Council  
August 26, 2019

Halina Brown, Chair of Newton Citizens  
Commission on Energy

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## Newton Citizens Commission on Energy

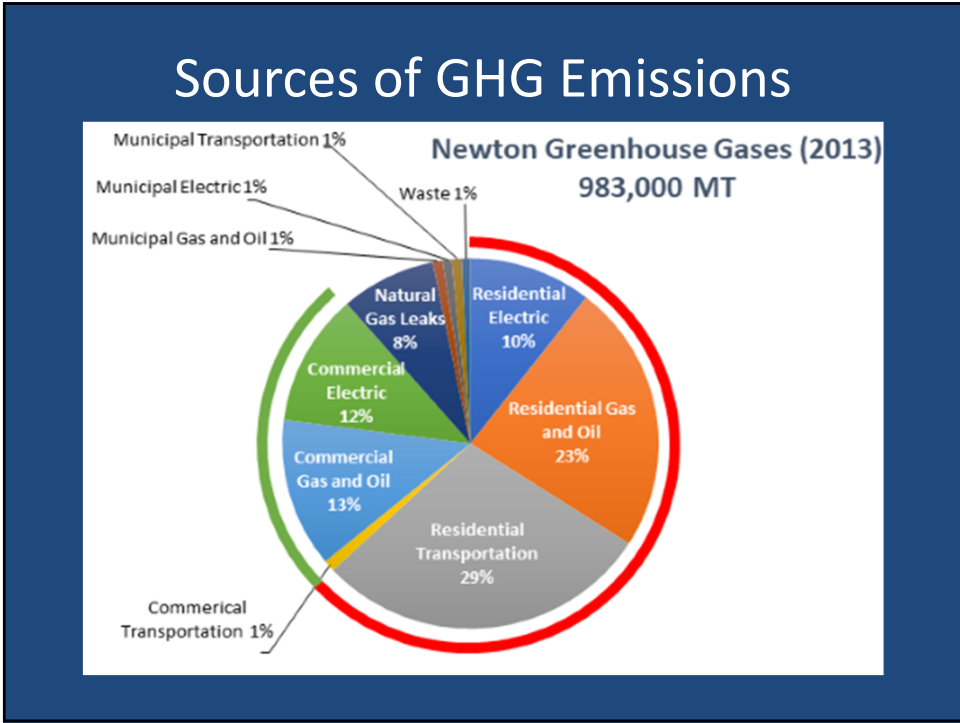
### Our 1979 Charter:

*"The commission shall develop a city-wide energy plan to encourage energy conservation and the use of alternative energy forms..."*

*"...[shall] report on its activities to the mayor and the board of aldermen when so requested or on its own initiative; file legislation before the board of aldermen..."*

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## Newton Citizens Climate Action Plan

*Research, Analysis and Implementation Priorities*

Newton Citizens Commission on Energy  
Aug 21, 2019

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## Key Features of CCAP

- **Three sectors:** Residential buildings, Commercial buildings, Transportation (88%)
- **Demonstrates that it is feasible** for Newton to achieve the UN goal of zero GHG emissions in 2050.
- **Calls for adoption** of this plan and the 2050 goal of zero emissions
- **Provides 30 year roadmap:** numerical goals and metrics, policies, incentives, technologies, responsibilities
- **Recommends 10** priority actions for now

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## Key questions addressed in the Roadmap

- What needs to happen
- How should it happen (specific actions)
- Where do we begin (immediate actions)
- Who should do what

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Essence of CCAP: *Research, Analysis & Implementation Priorities*

- Today & future trends

- Newton housing stock
- Newton demographics
- Building technology
- Heating & cooling technology
- Automobile technology

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- How to change behaviors through incentives- regulatory policies-assistance-education

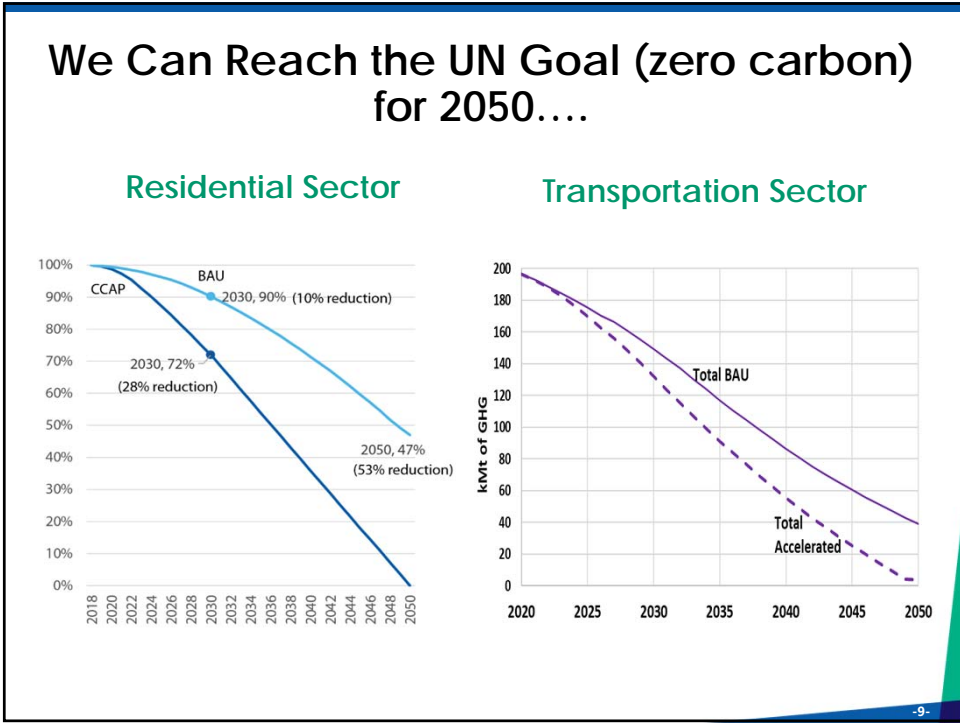
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Essence of CCAP: *Research, Analysis & Implementation Priorities*

- Model changes in the residential housing stock
- Model energy use and greenhouse gas emissions from the residential sector
- Model adoption of EVs and GHG emissions from automobiles

*...Under several scenarios out to 2050*

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## ... if we adopt this long-term strategy

### 1. Reduce Energy Demand

20% in residential housing  
Up to 50% in commercial buildings  
15-20% in vehicle miles traveled

Year	Percentage
2019	100%
2050	~75%

### 2. Electrify Buildings & Transportation

All-electric heating and all-electric transportation using 100% Class 1 New England renewables

Join us! Choose 100% Green

newtonpowerchoice.com

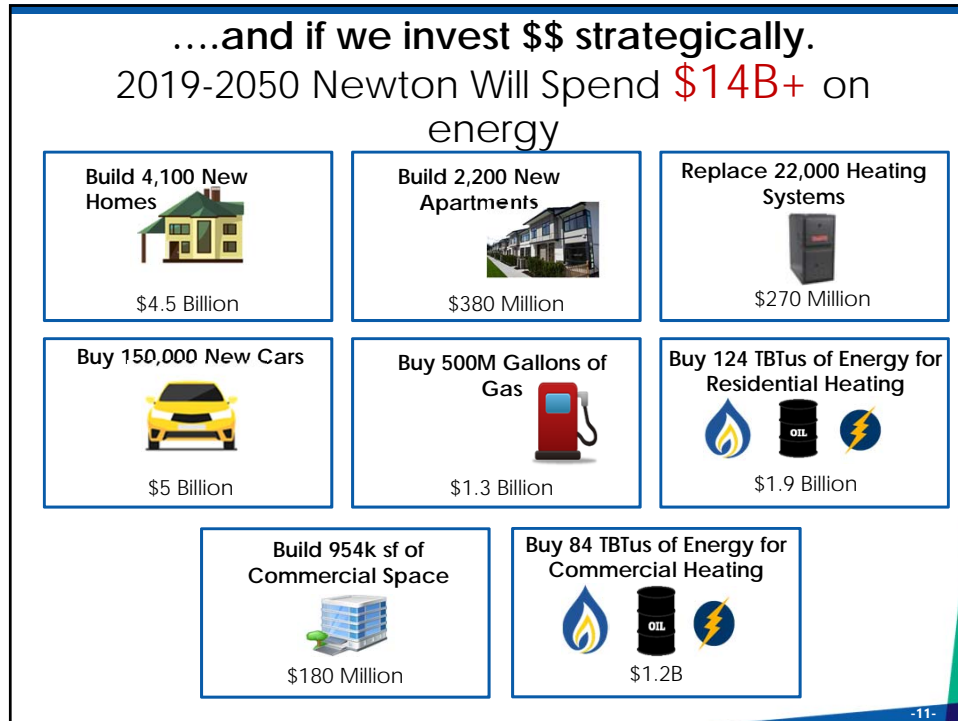
### 3. Motivate Largest Commercial Owners

Mayor and the Utilities challenge 10-30 large property owners to develop and implement their own climate action plans.

Green Leadership Collaborative

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## What needs to happen?

1. **2030: 100% renewable electricity**
2. **Adoption rate of EVs**
  1. 2020-2024: 1.5% per year
  2. 2025-2050: 4% per year
  3. 2019-2025: 1% → 10% EVs
3. **Rate of home retrofits**  
2019-2050: All homes electrified  
2018-2023: 300 → 800 energy efficiency retrofits/year
4. **3000 additional housing units; 80% apartments; 960 sf**
5. **2023-2050: All new construction at Passive House performance standard**

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## How should it happen?

Analysis identified opportunities for developing specific implementation actions

<p>100 homes torn down and replaced/year</p> <p style="text-align: center;"><b>Build to PH Standard with Electric Heat</b></p>	<p>Energy retrofits heavily subsidized by MassSave</p> <p style="text-align: center;"><b>Take Greater Advantage of Subsidies to Save \$\$</b></p>	<p>Growing road congestion</p> <p style="text-align: center;"><b>Transform Transportation, not More Roads or Parking</b></p>
<p>Several large mixed-use complexes under development</p> <p style="text-align: center;"><b>Build to PH Standard with Electric Heat</b></p>	<p>650 homes sold to new owners/year</p> <p style="text-align: center;"><b>Publicly disclose energy performance at point of sale</b></p>	<p>31 employers own 50% of commercial floor space</p> <p style="text-align: center;"><b>Drive These Organizations to Change</b></p>
<p>750 heating systems replaced/year</p> <p style="text-align: center;"><b>Replace with Heat Pumps, not Gas</b></p>	<p>25% of Newton residents over 65</p> <p style="text-align: center;"><b>Accelerating Home Sales → More Interventions</b></p>	<p>New car purchases: every 9 years</p> <p style="text-align: center;"><b>Incentives and campaign to buy EVs</b></p>

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## Where do we begin?

### Criteria for choosing 10 priority actions

- Magnitude of GHG emissions reduction
- Technical feasibility
- Market adoptability: likelihood that residents & businesses will adopt necessary changes and take action
- Importance in laying the groundwork for further major impact actions

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## 4 Actions Lead by City Council

**1. Require Passive House and all Electric for All Special Permits. Revise Criterion 5**

- Ensure that large projects like Riverside are highly efficient and GHG emissions-free

**2. Pass ordinance requiring HERS rating, energy costs & EV charger to be disclosed for all home sales. List in Assessor database**

- Start building awareness of energy costs to preferentially drive owners and buyers toward homes that cost less to operate; and are adapted for EVs and electric heat

**3. Pass ordinance requiring an electric option for all heating system replacements**

- Present homeowners with an electric heat option so they can make an informed choice.
- Educate building professionals

**4. Pass ordinance about revenue neutral property tax system that financially rewards residential properties with low energy use**

- Property owners who achieve Lower-Than-Average energy usage will be eligible for property tax reduction.

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## 4 Actions Led by the Mayor

**5. Preferential & Free Parking for EVs at Municipal Lots**

- Build visibility of EVs, educate non-EV owners

**6. Start a Marketing Campaign for EVs**

- Educate residents that EVs cost less to buy, power and maintain

**7. MOU with National Grid and Eversource**

- Accelerate home retrofits;
- Set numerical goals & metrics for energy conservation
- Training of contractors
- Co-brand a joint campaign for efficiency measures
- Finance Community Energy Assistance Mngr. position
- Enhanced incentive for Commercial users beyond MassSave

**8. Establish Green Leadership Collaborative for Commercial Building Owners**

- Begin process of getting major property owners to start lowering their own emissions. Jointly with NGrid and Eversource

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## 2 Actions Led Jointly by Mayor and the Council

### 9. Set up Climate Action Services Office and fund it!

- Facilitate adoption of clean renewable energy technologies and energy efficiency measures in residential & commercial buildings and transportation.

### 10. Require transportation plans for new developments that support CCAP goals

- Ensure that the City does not approve new commercial and mixed use development that will increase traffic and vehicle miles traveled

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## ...but City Hall must drive change:

- Ordinances
- Regulations
- Incentives
- Funding
- Technical assistance
- Barrier removal
- Outreach
- Be a convener for all actors



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## In Summary: The Plan's Urgency

- The Citizens Climate Action Plan is based on an analysis of what the city needs to do NOW in order to meet Newton's contribution to achieving the goal of holding temperatures to +1.5C by 2050.
- It establishes the specific actions, priorities, and numerical goals that we must meet in the short and longer terms. It allows to track progress.
- There is no "extra" time to get this done. Nor do we get credit for *just trying or for good intentions*.

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Thank you to all the hard workers!

Halina Brown  
Michael Gevelber  
Stephen Grody  
Asa Hopkins  
Jonathan Kantar  
Jonathan Klein  
Ira Krepchin  
Jim Purdy  
Puja Vohra  
Philip Hanser  
Cory Alperstein  
Jane Hanser

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## Content of Proposed Ordinance

- The City Council asks the Mayor to develop, by October 31, 2019, a detailed 5 year plan for implementing Newton Climate Action Plan, including numerical goals and progress metrics, specific policies, costs estimates, and staff responsibilities;
- In doing so, the City Council also instructs the Mayor to pay due attention to all issues and recommendations contained in the CCAP, and to use CCAP's quantitative analysis to set numerical goals and progress indicators;
- The City Council asks the Mayor to commit to the necessary ongoing inclusive process of engaging the NCCA and other interested parties in implementing Newton Climate Action Plan;
- The City Council further asks the Mayor to commit, starting now, the resources necessary to meet the goals of Newton Climate Action Plan.

# Newton's 2020-2024 Climate Action Plan



*Image from Newton Mothers Out Front*

**Presentation to ZAP and PF**  
**Monday, August 26, 2019**

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## Newton's Climate Related Plans

Resiliency/  
Adaptation

**Climate  
Change  
Vulnerability  
Assessment  
(CCVA)**

*State  
approval complete  
\*\*  
City Council  
adoption complete*

Health/  
Infrastructure Hazards

**Hazard  
Mitigation  
Plan  
(HMP)**

*MEMA  
approval pending  
\*\*  
Mayoral  
adoption pending*

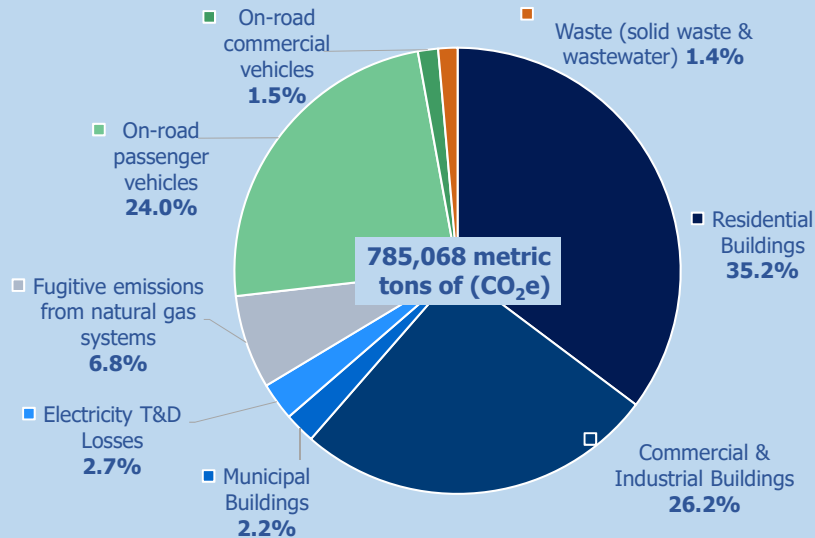
GHG Emission  
Reduction

**Climate  
Action  
Plan  
(CAP)**

*City Council adoption  
pending*

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## Newton's GHG Inventory (2013)



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## Newton's Climate Action Plan Goal: Carbon Neutral by 2050

**Use less (high-efficiency), green the rest (clean energy)**

**WHO is the prime actor?** Municipal government

**WHAT is the focus?** Transportation, Buildings, Operations

**HOW will it all be done?** Regulation, Education, Incentives, and Collaborations

**What is the CURVE ?** Progressive



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## Newton's Climate Action Plan Perspectives

### Focus is on Points of Municipal Leverage

Municipal government can play an important role in reducing Newton's GHG emissions

### 5-Year Plan (2020-2024)

This plan is designed to work together with City operations and budgeting

### Adaptive (system and outcome based)

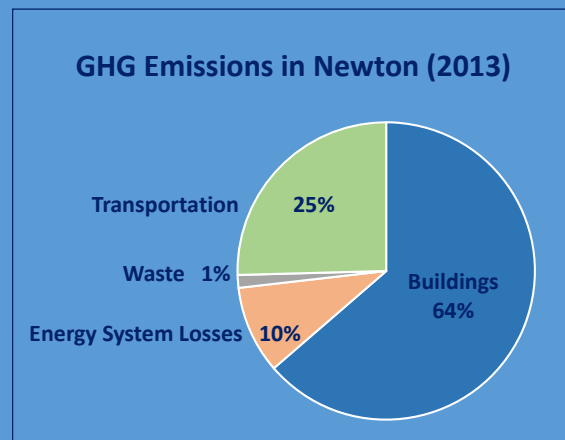
Understanding, technologies, and cultural norms are changing so fast that this plan must be readily adaptable

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## Newton's Six Action Areas

### Six areas of action with the greatest GHG reduction potential

- A. Municipal Implementation
- B. Clean & Renewable Energy
- C. Green Transportation & Streetscapes
- D. New Construction & Major Renovations
- E. Existing Buildings
- F. GHG Emissions Associated with Consumption and Disposal



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## A. Municipal Implementation

### Principles

**The City of Newton is committed to adapting internal operations and working with dedicated partners**

Through improved interdepartmental coordination and an enhanced CIP process, the City will efficiently allocate resources to address climate needs

Newton will work with local community partners to reach broad audiences and achieve sweeping change



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## A. Municipal Implementation

### Goals

- Appropriate municipal implementation structure and processes
- Work with the Newton Citizen's Commission on Energy
- Partnerships with local organizations including Newton-Needham Chamber of Commerce, Green Newton, the utilities, local businesses, etc.
- Collaboratives of businesses promoting adoption of clean energy technologies and practices

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## A. Municipal Implementation

### Selected Recommended Actions

- Transform Major Projects & Infrastructure Cluster into the Major Projects, Infrastructure, & Climate Change Cluster to oversee implementation of the Plan
- Develop concrete cost and benefit estimates for each action
- Incorporate funding categories or metrics in the CIP prioritization process
- Regularly evaluate and update the Plan and GHG inventory.
- Develop an MOU with Eversource and National Grid to promote energy efficiency and GHG emission reduction in the Newton community
- Develop an Energy Coach role
- Explore possible structures for a "Green Ribbon Commission"

### Selected Accomplishments to Date

- Newton is working with the Utilities on multiple MOUs
- Newton has received grants from the Utilities

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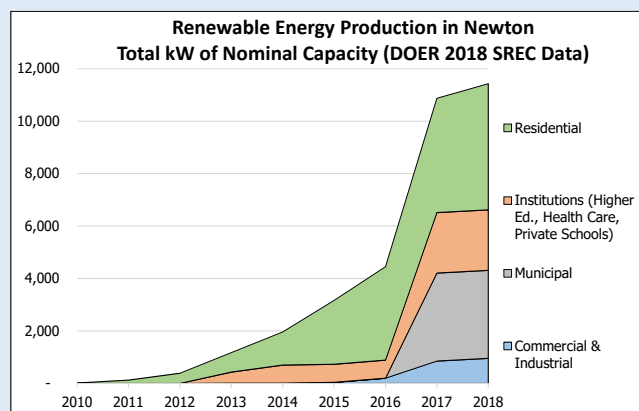
## B. Promoting Clean and Renewable Energy

### Principles

**We must convert the electric grid from fossil fuels (coal, oil, and natural gas) to renewable power (solar, wind)**

"Clean" electricity can then be used for heating and cooling homes, powering electric vehicles, etc.

Newton can contribute to the production of renewable energy with solar technologies



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## B. Promoting Clean and Renewable Energy

### Goals

- Increased municipal solar PV production in Newton
- Increased residential and commercial solar production in Newton
- Decreased use of natural gas in Newton
- More residents interested in adopting clean-energy heating and cool technologies
- Increased percentage of residents and businesses opting up to 100% renewable energy through Newton Power Choice

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## B. Promoting Clean and Renewable Energy

### Selected Recommended Actions

- Aggressively market current and future iterations of Newton Power Choice
- Increase the installation of residential solar (with advocacy groups)
- Increase the installation of commercial solar (with Chamber of Commerce, Housing Authority, and building owners)
- Support residents in adopting efficient electric heating and cooling technologies

### Selected Accomplishments to Date

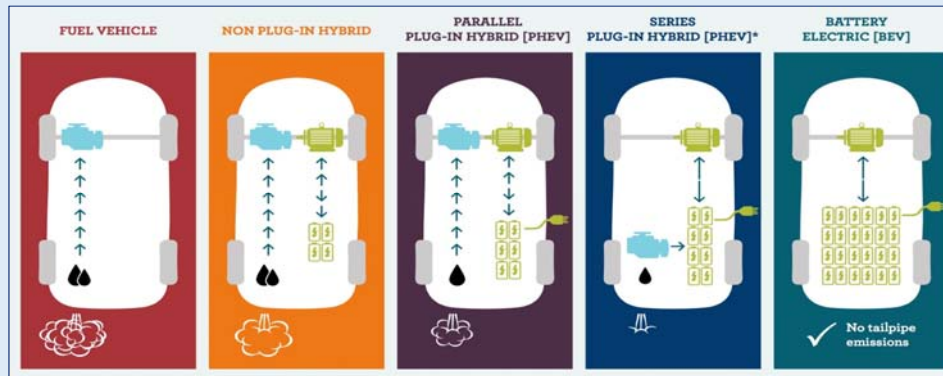
- Newton has more municipal solar PV than any other city or town in MA
- The City's "default" percentage of renewables (60%) in the Newton Power Choice program is the highest of any municipal aggregation program in MA

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## C. Greening Transportation and Streetscapes

### Principles

**We must provide alternatives to single-occupancy vehicles and convert from fossil fuel vehicles to electric vehicles**



From: [https://www.leadingthecharge.org.nz/nz\\_electric\\_car\\_guide](https://www.leadingthecharge.org.nz/nz_electric_car_guide)

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## C. Greening Transportation and Streetscapes

### Goals

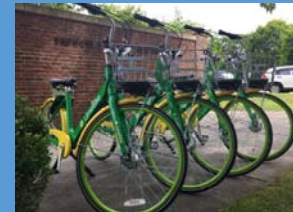
- Reduced vehicle miles travelled (VMT)
- Reduced single occupancy vehicle trips
- Increased share of trips via public transportation, biking, walking, and telecommuting
- 10% of all vehicles on the road in 2024 be EV, BHEV, ZEM, PHEV+
- Transition to fossil-fuel-free fleet
- Expanded EV infrastructure throughout Newton
- Expanded street tree cover and green infrastructure

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## C. Greening Transportation and Streetscapes

### Selected Recommended Actions

- Replace fossil fuel vehicles with EVs
- Expand EV infrastructure (charging stations, preferential parking, zoning)
- Promote alternative modes of transportation
- Create safe bicycle and pedestrian connections
- Support first- and last-mile connections to public transit
- Implement Complete Street projects



### Selected Accomplishments to Date

- Adopted Complete Streets Policy and Complete Streets Design Guide
- Installed 11 EV charging stations in municipal locations
- Transitioned 28 out of 46 fleet vehicles to EVs
- Contracted with GreenSpot EV car-share; launched NewMo senior transportation service; implemented Lime Bike share

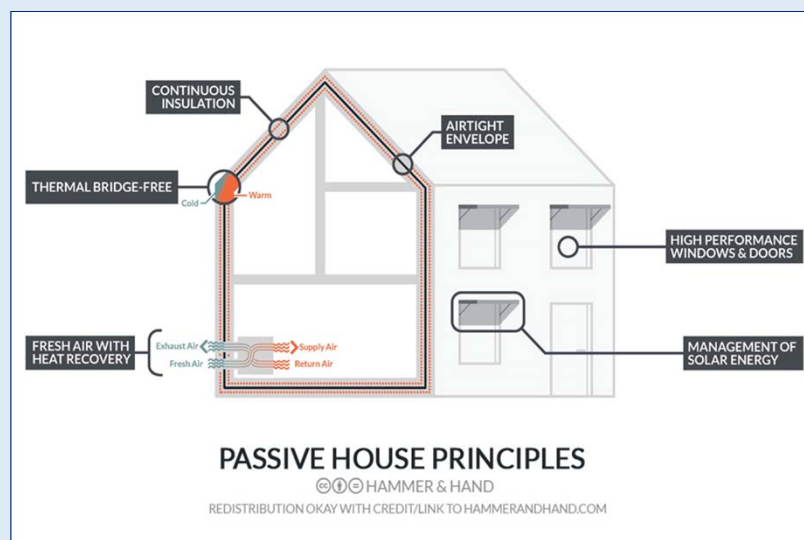
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## D. Newton's New Construction and Major Renovations

### Principles

**We must ensure that all new construction is built to the highest energy efficiency standards**

LEED and Passive House provide possible frameworks for analysis and performance standards



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## D. Newton's New Construction and Major Renovations

### Goals

- New and renovated buildings that are constructed with sustainability and resiliency principles:
  - "Use less" -- Reduce energy demand
  - "Green the rest" -- Use renewable sources of energy

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## D. Newton's New Construction and Major Renovations

### Selected Recommended Actions

- Influence national and state building codes through the IECC voting process
- Require new/renovated municipal buildings meet high energy efficiency standards
- Establish zoning provisions that require:
  - High-efficiency performance
  - Analysis of high-efficiency performance
  - More dense and energy efficient housing near public transportation
  - Solar and "eco-roofs"
  - Limitations on parking
  - EV chargers in new parking lots

### Selected Accomplishments to Date

- Adopted Design Review Guidelines limiting GHG emissions in municipal construction
- Registered all staff eligible to vote in the IECC building code process

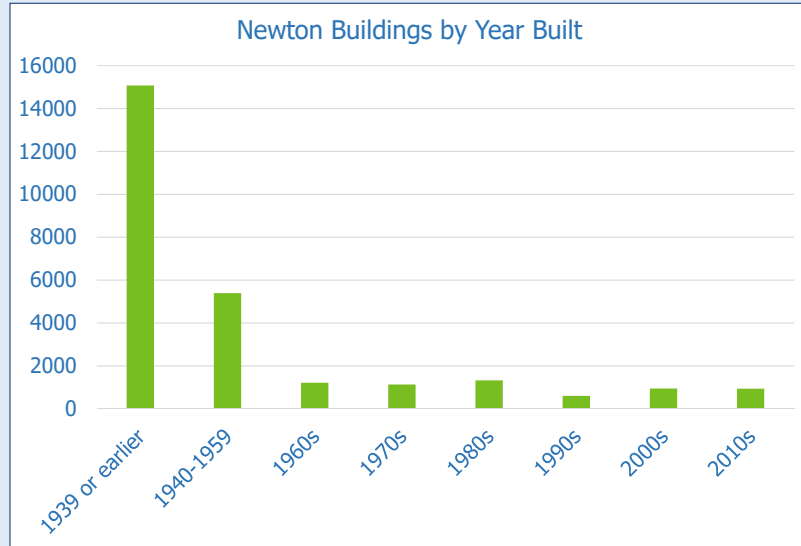
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## E. Newton's Existing Buildings

### Principles

**We must convert our old, energy-inefficient existing building stock as quickly as possible**

Insulating buildings and converting from gas and oil heat to green or green-able electricity is imperative



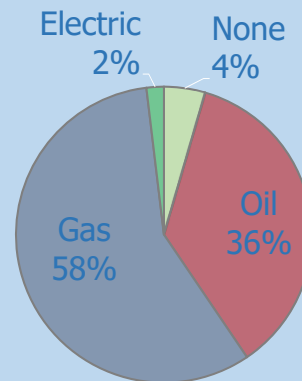
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## E. Newton's Existing Buildings

### Goals

- Reduced energy consumption and increased energy efficiency in existing buildings
- Electric heating and cooling building systems
- Release of utility bill information at the time of sale
- Homeowners and contractors educated about opportunities regarding energy efficiency and clean energy

### Heat Sources of Newton Buildings



Source: Newton's Assessors Office

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## E. Newton's Existing Buildings

### Selected Recommended Actions

- Promote transition to clean heating and cooling through electrification
- Allow by-right installation of GHG-reducing building improvements (*with City Council*)
- Require building owners to disclose utility bills to prospective buyers (*with City Council*)
- Provide support to homeowners and contractors to increase understanding of energy efficiency and clean energy opportunities

### Selected Accomplishments to Date

- Conversion of majority of municipal building lights to LED

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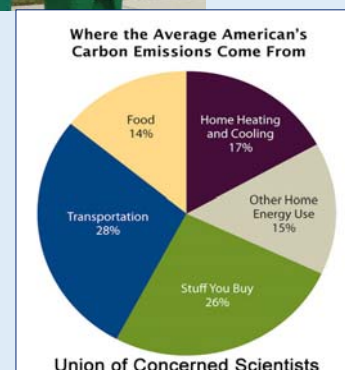
## F. Reducing Emissions from Consumption and Disposal

### Principles

#### We must change our habits of consumption and disposal

The GHG emissions associated with certain activities are clear (e.g., driving cars, flying in airplanes, heating buildings) - we know we must and we can reduce those emissions

The materials we purchase and use have their own GHG emissions profile - we must work to reduce that "embodied carbon"



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## F. Reducing Emissions from Consumption & Disposal

### Goals

- Reduced GHG emissions resulting from corporate operations and individual activities
- Maximized recycling and other waste diversion



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## F. Reducing Emissions from Consumption and Disposal

### Selected Recommended Actions

- Explore incentive programs for businesses
- Explore program to allow voluntary contributions to offset GHGs produced by air travel
- Consider mandatory citywide commercial recycling
- Work to implement organics diversion programs for Newton residents
- Increase waste diversion through recycling and household hazardous waste efforts

### Selected Accomplishments to Date

- Developing a 5-year sustainable materials management strategy
- Successful educational campaign to reduce contamination in recycling stream
- Successful curbside organics pilot in 2018
- Introducing an organics subscription program and organics drop off options

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## **Discussion**

Thoughts ?

Questions ?

Comments ?



# Climate Action Zoning Proposed Ordinances

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ZONING & PLANNING COMMITTEE  
AUGUST 26, 2019

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## Climate Action Zoning Proposed Ordinances

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<b>Reducing barriers to environmental building improvements</b> <ul style="list-style-type: none"><li>• Setback, heights, etc</li></ul>	<b>Sustainable Building / Site Design requirements</b> <ul style="list-style-type: none"><li>• Standards for projects requiring a special permit</li></ul>	<b>Solar Panel requirements</b> <ul style="list-style-type: none"><li>• Buildings over a certain size</li></ul>
<b>Electric Vehicle Charging Stations</b> <ul style="list-style-type: none"><li>• Required for parking lots over a certain size.</li></ul>	<b>Sustainable Design alternatives analysis</b> <ul style="list-style-type: none"><li>• Required analysis</li></ul>	<b>Special Permit criterion</b> <ul style="list-style-type: none"><li>• Applies to the review of all special permits</li></ul>

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### Reducing barriers to environmental building improvements

- Setbacks for exterior insulation, vestibules, heat pump compressors, window shades & eaves
- Height for solar panels
- FAR for doorway vestibules



3

### Sustainable Building / Site Design requirements

- A sustainable design standard tied to projects over a certain size and requiring a special permit.
- 3 possible approaches
  - Rely on existing standard
  - Existing standard +
  - City Standard

*Energy Star*  
**LEED**  
*Passive House*

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## Solar Panel requirements

- Required for projects that exceed a roof area threshold
- Alternative could be an “eco-roof”



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## Electric Vehicle Charging Stations

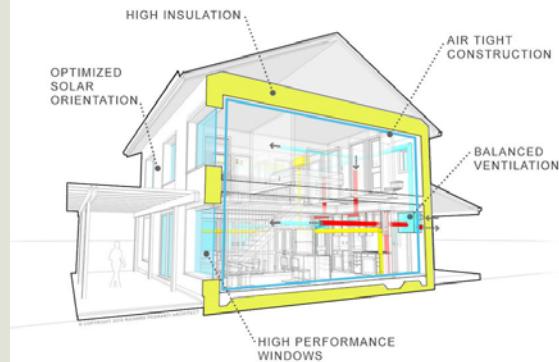
- Required for parking lots over 20 spaces
- 10% of spaces with access to vehicle charger
- 10% EV charger ready



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## Sustainable Design Alternatives Analysis

- Projects meeting threshold must provide an alternative design analysis reflecting a sustainable design option



7

## Special Permit Criterion

- New, broader criterion applicable to all special permit projects
- More similar in style and substance to the other special permit criteria

*The site as developed and operated will contribute to the City's efforts to adapt to and mitigate the effects of climate change*

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## Considerations



- Costs and reasonableness of the proposed requirements
- Staff capacity for review – time and expertise
- Legal limits

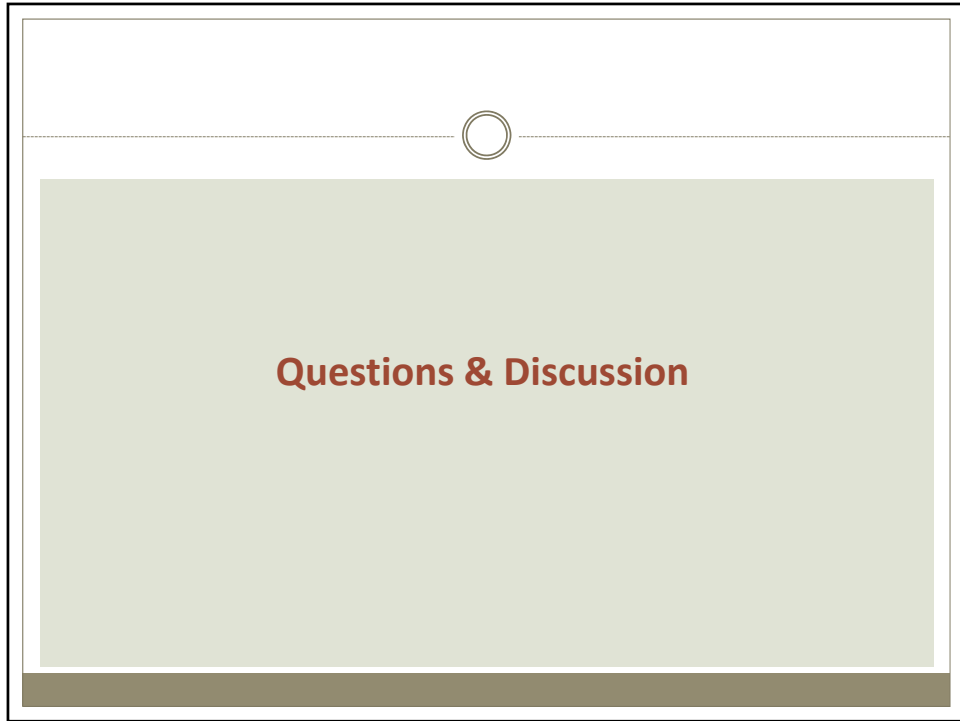
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## Next Steps



- Discuss implications of proposed changes with developers working in Newton.
- Meet with high-performance building professionals in Newton to discuss options and issues laid out above and get input on thresholds and standards.
- Meet with Planning, ISD and other staff as necessary to discuss capacity issues and solutions.
- Items are scheduled to come back to the committee for discussion on October 17.

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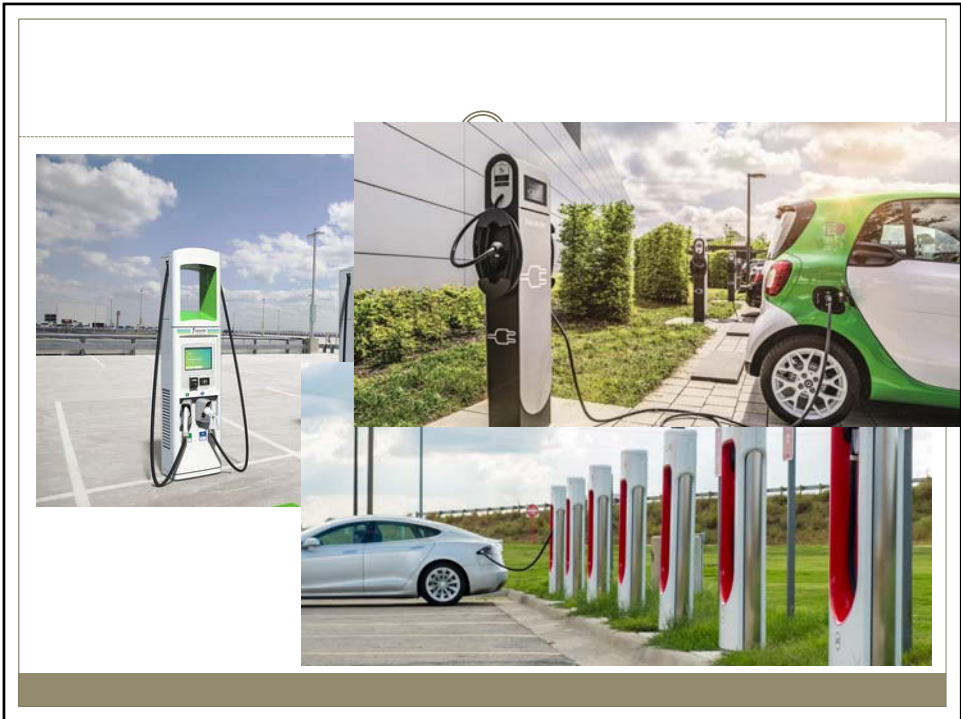
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