



A twice per year update on the City of Cambridge's progress toward the Net Zero Action Plan, which sets a pathway to enable Cambridge to become a carbon-neutral community by 2050.



Net Zero Action Plan Annual Report

[Click here for the FY2018 Progress Report](#)

The Community Development Department is committed to reporting annually on progress towards implementation of the Net Zero Action Plan (NZAP). Fiscal Year 2018 (July 2017 - June 2018) is the third year of NZAP implementation. Actions are therefore beginning to transition from study of program feasibility and design to initial program implementation and policy recommendations. FY18 included actions in all five categories: Action 1 - Energy Efficiency in Existing Buildings, Action 2 - Net Zero New Construction, Action 3 - Energy Supply, Action 4 - Local Carbon Fund, and Action 5 - Engagement and Capacity Building. Key accomplishments include implementation of actions identified in the [Low Carbon Energy Supply Strategy study](#) and stakeholder input into potential performance requirements through the [Building Energy Use Disclosure Ordinance](#) (BEUDO). The report gives a status update of each action, and also summarizes initial quantitative indicators which can serve as baselines for measuring future progress towards achieving GHG emissions reductions through the Net Zero Action Plan.



Updating the Green Building Requirements

Cambridge's Green Building Requirements ([Article 22](#)) are in the process of being updated. The proposed zoning would require new buildings and significant renovations to meet LEED Gold criteria (LEED Silver is currently required), satisfy LEED's Enhanced Commissioning credit, and submit a Net Zero Narrative that outlines how the project is being designed in response to the City's Net Zero Action Plan. Enterprise Green Communities and Passive House certification will be considered optional compliance pathways under this proposed amendment. Related amendments will reduce the barriers to installing increased exterior insulation on existing buildings. The proposed amendments are slated to be submitted to City Council later this summer.

Deploying Renewable Thermal Technology- Technical Analysis and Feasibility Study

Action 3.1 of the Net Zero Action Plan calls for a [Low Carbon Energy Supply Strategy](#) that will shift Cambridge buildings away from fossil fuel-based energy sources by 2050. In the past month, Cambridge started working with consultants to better understand the technical feasibility of deploying renewable thermal technologies (like heat pumps) on a large scale and how they could improve equity and resiliency to climate change in Cambridge. Our buildings vary widely in size, use, structure, and age. A critical aspect of the study is to analyze how each building type could best be served by renewable thermal systems and the cost effectiveness of the conversion. Making sure the benefits of renewable heating and cooling systems are equitably distributed among Cambridge residents is a high priority. Members of the community will assist in determining strategies that would maximize the benefits of renewable thermal for residents with the highest need and mitigate the impacts on renters. The City will use the strategy as the basis of new and expanded programs that will scale the uptake of renewable heating and cooling and significantly reduce buildings' energy demands and GHG emissions.



Advancing a Voluntary, Custom Retrofit Program

At the end of May, the City of Cambridge, Eversource, and other stakeholders concluded a series of four workshops to provide input on specific strategies, actions, and roles that can enable voluntary, comprehensive energy retrofits in BEUDO buildings by utilizing existing programs including Mass Save and other state/utility initiatives. Stakeholders agreed that there needs to be an improved intake process to increase awareness and participation in the retrofit program. Increased technical assistance that includes a concierge service that will be particularly helpful for buildings that lack staff capacity or technical expertise to pursue energy efficiency measures. A pilot program will be introduced in the coming months that incorporates and builds on the feedback received during these workshops--stay tuned for how to get involved!



Amending BEUDO to Include Building Performance Standards



The Cambridge Building Energy Use Disclosure Ordinance (BEUDO) was adopted in 2014 to encourage large buildings to track and publicly report their energy and water consumption. Per the ordinance, in 2018 the Community Development Department evaluated the trend of energy use in BEUDO buildings and engaged a working group of stakeholders across four meetings to work towards developing a straw proposal for potential BEUDO

requirements. Since then, CDD has continued to analyze the detailed components of the straw proposal and consulted with stakeholders to determine appropriate measures to include in the proposal. The proposal has also been informed by the evolving science around the impacts of climate change and the adoption of comprehensive GHG/energy targets for existing buildings in peer cities such as [New York](#) and [Washington, DC](#)

Over the next several months, CDD will continue working with stakeholders to refine and propose a set of performance requirements for BEUDO buildings as amendments to the current ordinance. If you are a BEUDO stakeholder and would like to participate in this process, contact [Seth Federspiel](#) for additional information.

Working Towards Net Zero for New Buildings

As the net zero new construction targets laid out in the Net Zero Action Plan approach, Cambridge is studying potential density bonus incentives for new buildings that choose to meet net zero requirements before they become mandatory, as well as solar installation requirements for new buildings throughout the city, using [Watertown's](#) solar installation policy as an example. CDD has been engaging with stakeholders and experts to define technical criteria for building to qualify for the bonus as well as for solar installation pathways. In FY20, there will be additional opportunities for stakeholder engagement to inform the development of these potential policies.



Net Zero Action Plan 5-Year Review

The Net Zero Action Plan is strengthened by its ambitious targets combined with its ability to adapt over time. To achieve this balance, the plan committed to a top-to-bottom review process every 5 years to evaluate the impact of the actions to date, consider changing science, technology, policy, and economic conditions, and make recommendations for adjustments to the plan in response to these changes. The first 5-year review will be completed in FY20, informed by a comprehensive stakeholder process similar to the original Net Zero Task Force. Keep an eye on upcoming newsletters for updates!



State-Level Policy Updates

Updating MA's Stretch Energy

MA's Comprehensive Energy

Code to Support Net Zero Objectives

Cambridge is one of over 240 municipalities statewide that have adopted the stretch energy code as a way to encourage energy efficient construction. The state building code continues to be amended every three years to reflect updated building practices, but the stretch code hasn't been updated in conjunction with the base code, meaning it no longer offers a more stringent option for communities like Cambridge with ambitious climate goals. The state building code is in the process of being updated, so Cambridge and several other municipalities are also advocating for an updated stretch energy code that moves toward net zero new construction. The Energy Advisory Committee is now working on a proposal to bring to the Board of Building Regulation and Standards (BBS) for review.

Plan in line with Cambridge's NZAP

In December 2018, the Department of Energy Resources (DOER) released the state's Comprehensive Energy Plan (CEP). The Plan points out that, while power sector greenhouse gas emissions are declining statewide, transportation and thermal emissions have remained relatively constant. For this reason, the CEP calls for targeted electrification, increasing energy efficiency, and investing in renewable energy. These strategies are the core "ingredients" of the recipe for phasing out GHG emissions from our buildings and align with the recommendations of the Net Zero Action Plan along with the recently released Carbon Free Boston technical reports.



Additional Resources

[Cambridge Sustainability Dashboard](#)

[Cambridge Energy Alliance](#)

[Cambridge Compact for a Sustainable Future](#)



For more information about the Cambridge Net Zero Action Plan, please contact:

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Or visit the [Net Zero Action Plan website](#)



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