

## **Cambridge Net Zero Action Plan**

By 2013 there was growing concern in the community that any new development would make the goal of reducing greenhouse gas emissions harder unless new developments were built to be net zero greenhouse gas emissions. Out of this concern, a group of Cambridge residents filed a zoning petition (the Connolly Petition) requiring that all new buildings over 25,000 square feet either be net zero emissions or annual offsets would be required. The petition was met with considerable apprehension. The main objections were that the types of buildings constructed in Cambridge could not physically achieve a net zero performance on site and that the offset requirements would drastically increase development costs, and thereby drive business out of Cambridge and stifle the local economy. While the Connolly petition was met with concern, it was the catalyst in bringing the issue of greenhouse gas emissions from buildings to the forefront.

In response, the City convened the Getting to Net Zero Task Force to foster a deep conversation among stakeholders to advance the goal of setting Cambridge on a trajectory to becoming a “net zero community,” with a focus on carbon emissions from building operations. To ensure a collaborative process, the City appointed representatives across sectors to study the technical aspects in greater detail and develop comprehensive, actionable long- and short-term recommendations.

The Net Zero Action Plan (NZAP) was adopted by the City Council in 2015 following an 18-month stakeholder process to identify a phased set of actions to reduce greenhouse gas emissions from new and existing buildings. That plan targeted a 70% reduction in City-wide building GHG emissions by 2040 to place the community on the pathway to net zero emissions by mid-century, consistent with the 2014 UNEP Emission Gap report.

As part of the 2015 NZAP, the Task Force proposed that the whole suite of actions be reviewed every five years. These reviews were intended to allow for the overall strategy to adjust based on changing economic, technology, and stakeholder needs. The review process was to be similar to the initial work of the Task Force in that it would be supported by staff and informed by a similar group of stakeholders. Driven by the principles laid out in the NZAP, the five-year review would revisit both the full set of actions and the timeline and make recommendations for adjustments to the Plan targets, actions, and tracking mechanisms moving forward. The resulting deliverables will serve as ongoing evaluation tools, justification for adjustments, and an implementation plan for the updated Net Zero Action Plan.

The review of the NZAP began in 2019 with an evaluation of the plan’s impacts to date. The five-year review Task Force was selected early in 2020. It was made up of 25 members of the community who have expertise in related subject matter and who could help inform a robust and equitable plan update. This report captures the results of the Task Force and NZAP impact evaluation work and provides an adjusted set of actions to help the City achieve its net zero emissions goals.

### **Net Zero Requirements for Municipal Buildings**

#### **Overview**

To demonstrate leadership, the City has for several years been designing and constructing new municipal buildings to be fossil fuel free and, since 2020, required to achieve net zero emissions. This also applies to “gut renovations” where a building is being completely renovated with new electrical, mechanical, interior, and envelope systems. For all other existing municipal buildings, greenhouse gas reductions have been a key priority throughout the municipal facilities improvement strategy, and the City has been working to integrate it with other priorities, such as life safety and accessibility. This commitment to the net zero and renewable thermal objectives will continue and provide a showcase for others for new technologies and how to achieve deep levels of savings through energy efficient design.

## Contribution to Net Zero Objective

There is significant benefit to the City demonstrating leadership by committing to achieving fossil-fuel free construction and net zero emissions in its own building stock. This shows the City's commitment, demonstrates that net zero is achievable, will generate savings, and charts a path to net zero for private industry.

## Anticipated Level of GHG Reductions

The greatest benefit of the Net Zero Requirements for Municipal Buildings is that this action demonstrates leadership and provides an example for others to follow.

## Equity

**Under this Action, Cambridge would continue its policy that all municipal buildings be constructed to net zero standards. In doing so, the action targets municipal buildings only, and there is no direct impact on Cambridge's vulnerable residents.** That said, this Action entails potential indirect and conditional equity benefits. Net Zero municipal buildings have benefits beyond energy, by promoting healthy indoor environments, the use of more environmentally friendly materials, and waste reduction. For example, if municipal buildings stop using energy generated from fossil fuels, then demand for fossil fuel energy declines, and vulnerable populations near polluting power plants benefit, as do residents and employees who spend time in municipal buildings – but the equity benefit is indirect and conditional on building performance.