

# City of Cambridge Net Zero Transportation Plan Advisory Group

Meeting #4 notes – Wednesday, May 31, 2023

The Advisory Group held its fourth meeting on Wednesday, May 31, 2023, at the Cambridge City Hall Annex and via Zoom. The objectives of the meeting were to –

- Learn and share about transportation planning, emissions, and strategies to reduce transportation emissions
- Start discussing policies that could reduce transportation emissions

## Key outcomes and action items

- Advisory Group members reviewed key technical concepts related to transportation planning and measuring emissions. Key points were as follows:
  - Many factors affect the modes that people use for their trips, including physical/mental disabilities, immune status, body size, religion, culture, and seasons.
  - For issues like changes to roadway space, it is important to involve the community in the decision-making process. Some Cambridge residents feel like they have been left out of these decisions.
  - Electric vehicles are an important component of an emission-reduction strategy, but members are concerned about the safety and reliability of electric buses.
  - Advisory Group members can play a role in sharing background information on transportation planning with their communities. “An informed city is a more unified city.”
- A future discussion topic will be a conversation around how land use planning and housing density relates to transportation and emissions.
- CDD will look into data around seasonal variations in trips (from traffic counters) to share with the Advisory Group.

## Welcome and introductions

Stephanie Groll (Community Development Department) welcomed Advisory Group members. Participants introduced themselves and shared about who they help and who helps them get to where they need to go.

## Understanding transportation and emissions

Advisory Group members reviewed key technical concepts related to transportation planning and measuring emissions. These concepts are important as the Advisory Group is beginning to analyze potential strategies and actions to improve mobility for Cambridge residents<sup>1</sup> and reduce emissions to zero by 2050 or sooner.

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<sup>1</sup> “Mobility” here means the ability to physically move around easily and safely.

## Basics of transportation planning

Advisory Group members began by reviewing “basics” of transportation planning. Slides from the presentation are available on the Advisory Group website:

<https://www.cambridgema.gov/Departments/communitydevelopment/netzerotransportationplan>

The modes that people use are influenced by their identity and life experience (for example, race, past experiences with transportation, and housing status) and the specifics of each trip (purpose, cost, time of travel, etc.).<sup>2</sup> Advisory Group members highlighted the following additional factors:

- **Additional influences on mode choice:** *Religion* is often an important factor – Muslims pray 5 times per day and many drive to and from their mosques each time. *Physical and mental disabilities* are important and affect mode choice in different ways. In some cases, people cannot drive their own car, while in other cases people must drive their own car to get from place to place. *Body size* also makes certain modes more difficult and uncomfortable than others. *Immune status and health conditions* also restrict people’s ability to use modes with other passengers. *Culture and country of origin* are often factors, as immigrants from some countries are not used to the culture of riding bikes. *Seasons* might be an important factor throughout the course of the year. The City has traffic counters at key intersections which monitor traffic daily throughout the year. Data from those counters could be useful for the Advisory Group.
- **Frustrations from residents who feel like they are left out of decision making:** There is a proposal to install bike lanes in a section of Main Street. Residents have been frustrated because they feel like changes are happening to their streets without them having a say, or that their input is only welcomed once the policy decisions have already been made (leaving little to influence.)
- **The group should consider how development and density affect both quality of life and transportation options for residents.**

The modes that people use are important because they affect:

- The time it takes people to get from place to place;
- The emissions that their trips will produce; and
- The roadway space needed to accommodate everyone’s trips and choice of mode.

## Measuring emissions

Different modes emit different amounts of greenhouse gases. The amount of emissions produced is a result of distance travelled (miles), fuel efficiency of the mode (gallons per mile), and the fuel emissions (lbs. of greenhouse gases per gallon).

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<sup>2</sup> A “mode” is a particular way someone gets around (e.g., driving, biking, taking the bus, or walking).

In Cambridge, 94 percent of transportation-related emissions come from private gas-powered vehicles. Electric vehicles, buses, biking, walking, and trains release the lowest (or no) emissions per person.

Members also reviewed a tool for estimating the change in emissions that comes from shifting numbers of trips in Cambridge to different modes. The tool also factors in the effects of MBTA electrification and shifting the electric grid to renewable energy, which will be assumed to occur in the Plan going forward.

Advisory Group members made the following points:

- **Electric vehicles and the grid:** Electric vehicles still account for some emissions because the electric grid still uses fossil fuels today. For the purposes of planning for reaching net zero emissions, the City assumes that the electrical grid will be running on renewable energy. Also, the manufacturing of electric vehicles and their components produces emissions.
- **Green Line vs. Red Line emissions:** There is not a significant difference between the Red Line and Green Line in terms of emissions
- **Safety and reliability of electric buses:** The MBTA stopped running trolley buses, which means that parts of the transit network that were once electric-powered are no longer electric-powered. The MBTA has a goal of transitioning buses to battery-power, but there have been issues with getting batteries that can last the required range. Electric buses also typically face difficulties in areas that are hilly and cold. Generally, the approach in other cities is to electrify shorter routes first, then work toward longer routes. There is also a concern about lithium batteries in buses starting fires, as has happened in Philadelphia. All of this makes safety and reliability of electric buses an issue of concern.
- **Making comparisons between cities:** When making comparisons around any strategy, it is important to compare similar cities. Two potential cities to compare with Cambridge would be Minneapolis and Anchorage.
- **Reliability of the MBTA:** There is also concern around the transit system in Boston and whether it will make necessary repairs. If the T does not become more reliable and/or does not electrify as planned, its contribution to reducing transportation emissions will be diminished. Other public transit systems across the country are also struggling.

### Reducing emissions from transportation

Reducing emissions can happen in three broad ways:

1. Increasing convenience and safety of sustainable modes;
2. Increasing efficiency of modes; and
3. Transitioning to modes that use renewable energy.

The City of Cambridge has different levels of influence over strategies. There are some that the City can make a decision on (e.g., design of local roads), some that the City cannot decide on but can help guide (e.g., how the MBTA runs in Cambridge), and others that the city can have a more indirect influence on (e.g., grid electrification).

Key reflections from members included:

- It is good that City of Cambridge planners meet regularly with the MBTA. Not every town or city served by the T is able to have that relationship.
- It would be good to share with the broader community some of this background information around what is within and beyond City government's control. "An informed city is a more unified city." Advisory Group members can also play a role in sharing key lessons with their own communities.

## Final reflections and conclusion

One member shared an issue related to two members of their community. These individuals do not own cars and have been struggling to get around to different parts of Cambridge and Somerville with a subway and bus system that is unreliable right now. This is making them consider getting cars, but if the public transportation system was more reliable, they would not choose to do this. The topics that the Advisory Group is considering have real and tangible relationships with people's daily lives, and hopefully transportation options can be improved.

Members closed the meeting by sharing that they appreciated learning from one another and absorbing the technical concepts. People are interested in:

- Finding compromise between difficult tradeoffs (e.g., parking vs. bike lanes);
- Understanding how shorter overall trip distance affects decision-making; and
- Understanding how to encourage people to make changes toward more sustainable options.

Members will continue discussing these topics at the next meeting, scheduled for Wednesday, June 28, at 9 AM.

## Attendance

### Advisory Group members

- Pastor Farris Blount (Western Avenue Baptist Church / Cambridge Black Pastors Alliance)
- Elizabeth Brusie (De Novo Center for Justice and Healing)
- Karim Elrazzaz (Islamic Society of Boston Cultural Center)
- Ibrahim Omar (Islamic Society of Boston Cultural Center)
- Ali Sorrels (Cambridge Women's Center)
- Rachel Tannenhaus (Cambridge Commission for Persons with Disabilities)
- Omriqui Thomas (Cambridge Public Schools student)
- Yao Wu (Chinese American Association of Cambridge)

### Community Development Department staff

- Stephanie Groll (Mobility Strategy Manager)

### Consultant team

- Michael Bangert-Drowns (Arup)

- Brandon Chambers (Consensus Building Institute)
- Elizabeth Cooper (Consensus Building Institute)
- Kate Fichter (Arup)