

Appendix 2. Strategic Objectives

1. To support climate responsiveness in alignment with sustainability goals

In 2018, Council approved the Milton Green Innovation Plan (ES-017-18), followed by the declaration of a Climate Emergency (2019). In alignment with these corporate sustainability initiatives, the ZEB Feasibility Strategy aims to develop a transition plan to reduce greenhouse gas (GHG) emissions from buses. The study uses the [GHG+PLUS guidance modules](#) as outlined by Infrastructure Canada - ZETF to specifically address and quantify risks associated with the impacts of climate change to Milton's transit infrastructure. The ZEB Feasibility Strategy will also develop mitigation and adaptation strategies for the near-term, as well as long-term assessments of GHG reductions and infrastructure vulnerabilities.

2. To foster a state-of-readiness for zero-emission technology

Transit systems across Canada are at varying stages of zero-emission technology adoption, from determining feasibility and conceptual planning/modelling, to advanced pilot project implementation and asset procurement. There has also been evidence of a gradual market-shift in the production of buses from diesel to battery-electric. For example, Nova Bus, one of the two Canadian suppliers of 12 metre conventional buses, is planning to change its business model in the near term, strategically redirecting product deliveries to battery-electric and other alternative forms. As a result, it is important to undertake planning efforts through this study to establish a state-of-readiness for such a market-shift.

3. To align adoption with Transit Operations Facility development

A significant Town project currently in progress is the Transit Operations Facility development. While staff are currently evaluating land acquisition opportunities that satisfy functional requirements, the ZEB Feasibility Strategy will highlight future-ready programming for consideration during the facility planning, design and construction phasing process. Criteria and concept layouts from the study will provide guidance on structural characteristics, charging equipment and utility infrastructure needs to support BEB implementation. It is therefore critical to achieve a predictable timeline for substantial completion of the facility - the main catalyst to support service growth and the adoption of BEB technology. That is, large scale BEB deployment cannot occur until there is line-for site of facility completion and charging capabilities in place. For the purposes of study modelling, it was assumed that a fully functional Transit Operations Facility may be achieved in 2027. However, further refinement of timelines may be required upon future facility-related developments.

4. To develop a customer-centred plan that preserves service reliability

A crucial aspect of high-profile, technology adoption is to ensure that service remains stable, reliable and at minimum, equivalent to the current baseline. As such, the ZEB Feasibility Strategy reinforces a pragmatic and customer-centred approach for the transition to BEBs in a manner that underscores the significance of a measured timeline for proper evaluation, training, contingency, redundancy and customer feedback. Deployment will include retaining a mixed-fleet of diesel and BEBs over an extended period of time. This methodology also establishes guiderails to balance BEB adoption with sustainable and predictable long term investment.