

100% Renewable Energy (100RE) Strategy



In 2018, Council approved a goal for the City of Guelph to achieve one hundred per cent of its energy needs through renewable sources by 2050. This was further reinforced through Council approvals in 2019 to develop a funding strategy and through the Strategic Plan and performance framework approval in 2020.

This strategy is in the early stages of development as the City is costing out the long-term initiatives planned; however, we know it will require significant financial investment to achieve the strategic goal. As part of the 2019 [Report IDE-2019-44 Corporate 100% Renewable Energy Target by 2050](#), Council directed staff to develop this funding strategy. This funding is not all from tax supported sources and will also include other level of government grants, and investment from the City's user rate models.

We are already making progress across the corporation with incremental improvement in reaching our 100RE goal. In the City's first annual [environmental sustainability report](#), we have demonstrated an increase of 3.8 per cent since 2018, a quarter of the way to the ultimate goal. This was achieved by investing in:

- Reducing City facility and fleet energy consumption by 2.2 million kilowatt hours—enough to power 250 homes a year.
- Reusing digester gas from the wastewater treatment process to help power the wastewater treatment plant.
- Upgrading Victoria Road Community Centre and Exhibition Arena with zero-emissions electric ice resurfacers.
- Upgrading 13,000 City streetlights to [LED lights](#).
- Saving 658.5 million liters of water—enough to fill over 263 Olympic-sized swimming pools—[through efficiency programs](#).
- The new net-zero energy Market Parkade built with energy efficient lighting, public electric vehicle charging stations and 188kW of solar capacity on the roof.

100RE in the 2021 Budget

There are a number of places you can see the investment in 100RE through the budget. We know that both tax supported and rate funding sources are required to fund project outcomes that get us closer to the 100RE goal. From a tax-supported perspective, staff is requesting \$500,000 per year of incremental investment to ensure funds are available to match the federal and provincial grant for electrifying the City's transit fleet in addition to other energy projects.

The City is planning to electrify the transit bus fleet as one of the most impactful ways to reach the 100RE goal and reduce greenhouse gas emissions. The capital budget includes the facility and charging infrastructure costs needed in the future. Currently, the City is conducting an [electrifying pilot project](#) to help inform the long-term plan.

Environmental Services has developed a policy to [convert carbon offsets](#) into funding to support 100RE. In the 2021 budget, staff is seeking approval to direct all future carbon offset revenues to support 100RE on a permanent basis. Historically, this carbon-offset revenue was directed to the 100RE Reserve Fund through stand-alone Council motions when the funds were received.

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Corporately, as the Climate Change Office has become more involved with project planning, budgeted lifecycle replacement projects are starting to see 100RE goals built into the project design resulting in end-of-life equipment being replaced with energy efficient equipment.

The South End Community Centre design will meet the Zero Carbon Building Design standard and will conserve energy by investing in the building envelop, using cleaner fuels and energy-efficient equipment, and generating renewable energy to offset energy use and cost.

Process equipment upgrades to the aeration blowers at the wastewater treatment plant, which is a multi-year project, will improve control of air supplied to the treatment process and significantly reduce energy demands by 6,750,000 kWh/yr — enough to power 750 homes a year.