

Energy-Efficient Technologies

Leading The Way

Lafarge



To make cities greener, build smarter infrastructure and improve living standards, as we work towards becoming a net zero company.

William Gowdy Manager, Sustainability and Environment





Background

Lafarge is Canada's largest provider of sustainable construction materials and a member of the global group, Holcim. With 6,000 employees and 400 sites across Canada, ther mission is to provide construction solutions that build better cities and communities. From cement and aggregates, to ready-mix and precast concrete, as well as asphalt, paving and construction, they bring value to every project, and are a part of building Canada right.

CLIMATE ACTION HIGHLIGHTS



Employee Engagement

Lafarge engaged their employees to brainstorm ways to reduce their electricity use in their operations. This earned them the Employee Engagement Award from the Corporate Climate Leaders Program in 2021.



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Lafarge installed a variable frequency drive and converted a significant amount of their lighting to high efficiency LEDs in 2021. A further lighting conversion is planned in 2022.



Corporate Climate Leader since 2018



2017 Baseline Year Emissions 12,787 Tonnes of GHGs* * from Edmonton facility



Targets

4% GHG emissions reduction by 2025 from 2017 baseline

10% GHG emissions reduction by 2035 from 2017 baseline



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Reducing Energy Consumption

Lafarge





Reducing Electricity Use at the Lafarge Cement Terminal

In 2019, Lafarge set out to reduce its energy use at its cement terminal in Edmonton. Lafarge began with engaging its employees and asking them to think about ways they could change their operations to reduce electricity consumption.

Based on their employees' recommendations, as well as industry best practices, Lafarge introduced a series of procedural changes to significantly reduce their energy use. Lafarge also installed a variable frequency drive to allow their motors to operate at a reduced speed and they switched a significant amount of their facility lighting to LED lightbulbs in 2021. Another lighting conversion in 2022 will help them further reduce their electricity use and their GHGs.

PARTNERSHIPS

Lafarge partnered with:

- Building Energy Retrofit Accelerator to finance the energy audits and building energy upgrades.
- Energy Savings for Business to finance the LED retrofits and variable frequency drive.

PROJECT OUTCOMES

Lafarge lowered electricity use by almost 1,000,000 kWh per year, over a 4-year period at their cement terminal facility (**Figure 1**). With their plans to convert the rest of the lighting to LEDs in 2022, they expect this number to be reduced even further.



1,000,000 total kWh reduced from 2018-2021



PROJECT BENEFITS







Increased Brand Profile Public Demonstration of Organizational Values Increased Employee Engagement