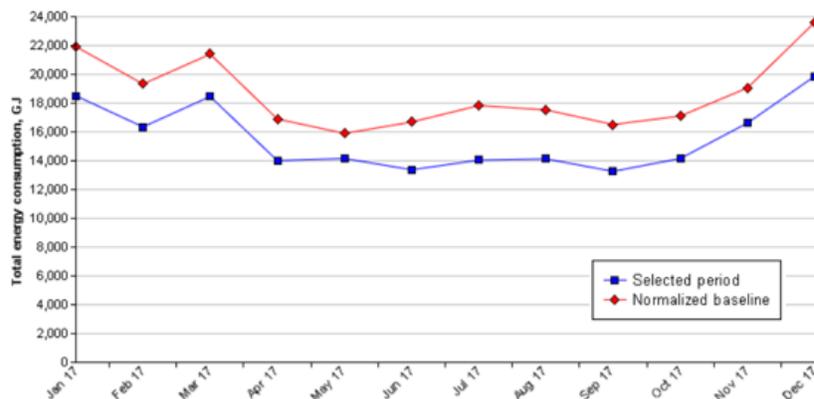


## Grand River Hospital (Kitchener-Waterloo): Big savings from energy efficiency



Since 2012, supported by the Greening Health Care program, Grand River Hospital in Kitchener-Waterloo has been undertaking a series of energy efficiency projects. The aim of this work was to allocate less of their budget to energy use, and more to better patient care.

As of 2017, the hospital has reduced its energy consumption by 16.5% compared with 2012, saving more than \$850,000 in annual utility costs and avoiding 1,210 tonnes of greenhouse gas emissions annually. About \$150,000 of the funds invested in these projects was from utility incentives. Other funding came from the hospital's energy conservation fund, created from savings from the avoided capital and operations costs of the hospital's energy optimization efforts.



**Grand River Hospital  
annual energy savings**

**16.5% less energy**

**\$850,000**

**1,210 † avoided GHGs**

**Total monthly energy consumption for Grand River Hospital in 2017, as compared to normalized baseline (2012, prior to energy conservation efforts).**

Greening Health Care helped staff from Grand River understand the impact of ventilation systems on energy use. Previously, all efforts had been focused on building envelope measures. The most significant single conservation project the Hospital undertook was hiring their own in-house Building Automation System technician. The hospital now benefits from full-time expertise and service with deeper knowledge of how the building systems function and align

## **Grand River Hospital (Kitchener-Waterloo): Big savings from energy efficiency**

with occupied hours. It is also easier for operations staff to bring forward their energy conservation ideas, especially after receiving energy management training (50% of these training costs were offset by utility incentives). All changes can then be continuously monitored. As a result, the hospital optimized its air handling system, which reduced chiller loads to such an extent that the hospital was able to avoid a \$1.5 million expenditure for a new chiller (the primary source of the energy optimization project funding referenced above).

Beyond the financial savings, these energy savings have also earned the hospital multiple Greening Health Care and other sustainability awards over the years, which are all proudly displayed. The hospital will continue building on their energy efficiency successes, with many more energy optimization projects planned.