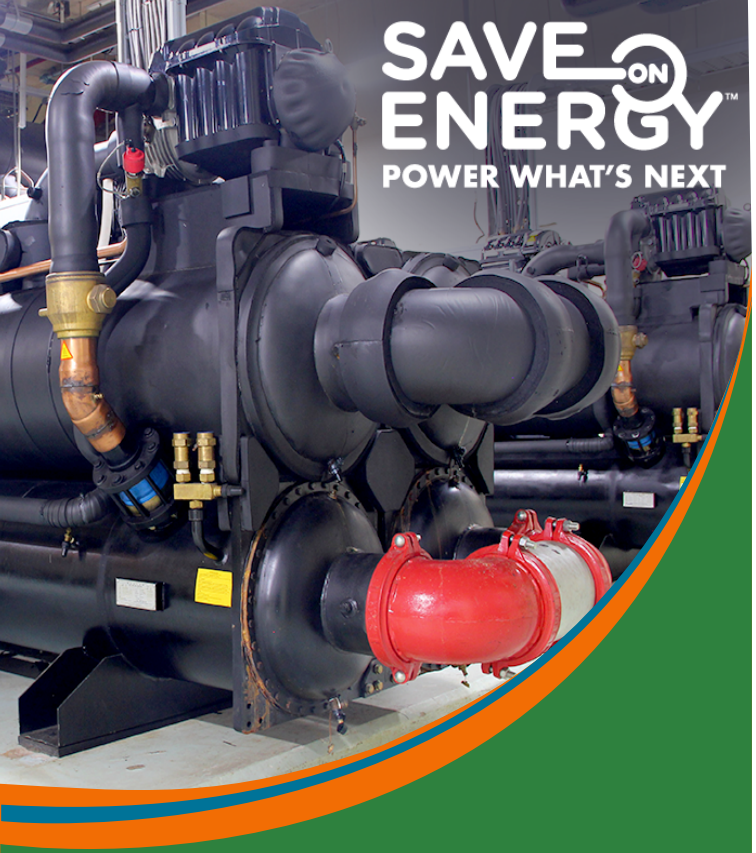


SAVE ON ENERGY™
POWER WHAT'S NEXT

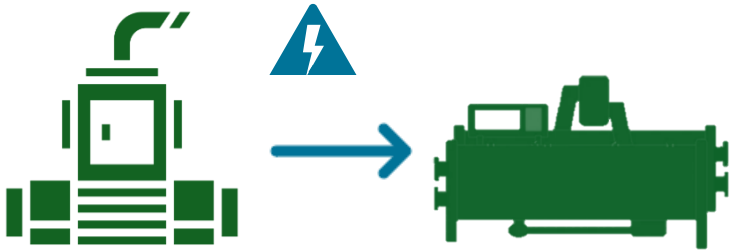
CHILLER UPGRADE

When it's time to replace your chiller, consider size, speed control and fuel source.

- Reducing electricity consumption and demand during peak periods when chillers often operate nearly doubles the operating cost savings.
- Speed control with a variable frequency drive is critical to avoiding energy waste and reducing maintenance on single-chiller systems.
- Electricity, emissions and cost savings persist for 20 years or more.

Sources:
NRCan, *Technical Fact Sheet: Choosing a High-Efficiency Chiller System*, https://www.nrcan.gc.ca/energy/publications/efficiency/6037
The Engineering Mindset, https://theengineeringmindset.com/energy-savings-from-replacing-a-chiller/

Chillers provide space cooling in commercial buildings by using a refrigerant to transfer heat away from air-conditioned spaces. Chillers are a major energy end user in most mid-tier commercial buildings. Improving the efficiency of your chiller through right sizing and speed control can dramatically reduce your energy consumption and operating costs. Right sizing matches the capacity of the chiller or chillers to your building's design load, while speed control enables the chiller to ramp up and down in response to occupant needs.



Replacing an old absorption chiller with a new electric chiller can lead to significant energy and cost savings. High-efficiency electric chillers offer a significantly higher coefficient of performance compared to absorption chillers, meaning they transfer more heat away from the space per unit of energy input.

Case Study: Corus Quay

Corus Quay, a 564,000 ft^2 LEED Gold building in Toronto, installed a dual-compressor, centrifugal chiller with integrated variable speed drives. The high-efficiency electrical chiller consumes 35% less energy than a standard chiller, while reducing operating noise and vibration.

SAVE ON ENERGY™
POWER WHAT'S NEXT

The Save on Energy Retrofit program offers incentives for the purchase of a new chiller. You can get up to $1,320 for an air-cooled chiller, up to $24,300 for a water-cooled centrifugal chiller and up to $25,700 for a water-cooled positive displacement chiller.

Visit the Save on Energy Retrofit program page to learn more. For more information or to get in touch with a Save on Energy representative in your area, please contact the Retrofit Support Line at 1-844-303-5542, or email retrofit@ieso.ca.