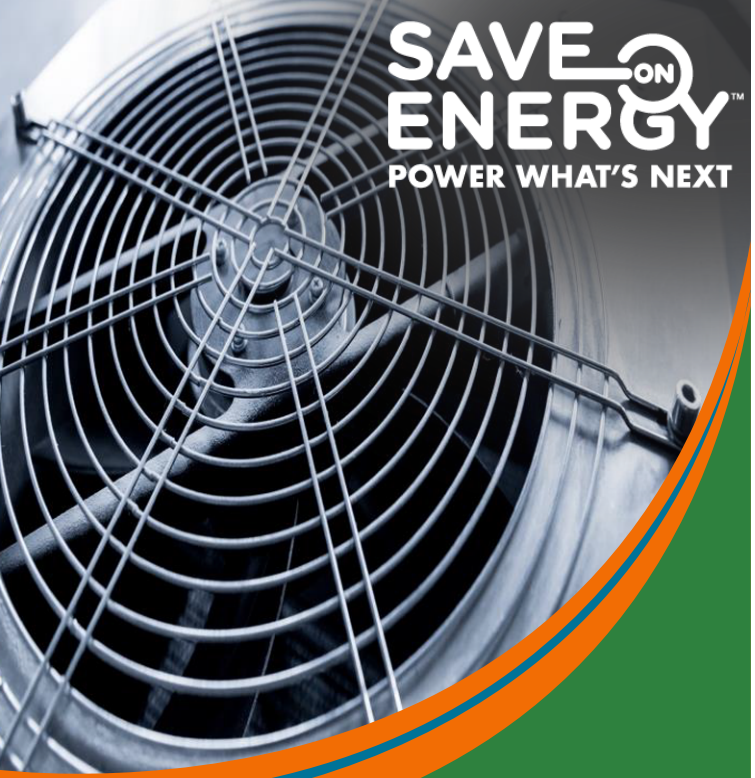


SAVE ON ENERGY™
POWER WHAT'S NEXT

ELECTRONICALLY COMMUTATED MOTORS

ECMs can save 75% of fan energy consumption in fan coil units, while improving air quality, reducing noise and maintenance costs.

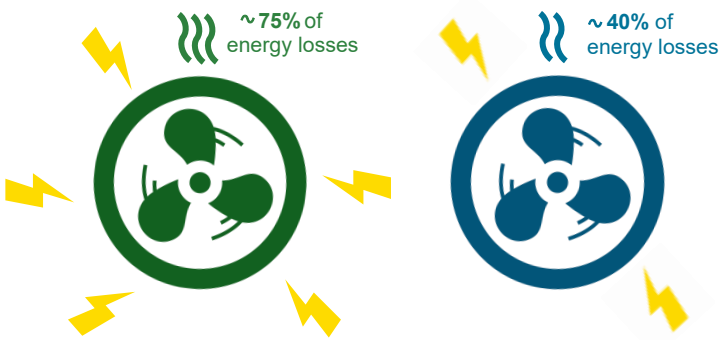
- Improved ventilation and air quality.
- Quieter than a standard fan motor.
- Reduced electricity consumption and demand during peak periods.
- Longer lifetime than a standard fan motor.

Sources:
Energy Smart Grocer, *ECMs: Keep Cool While Cutting Your Operating Costs,* https://energysmartgrocer.org/ca/documents/PG&E-ESG-Factsheet-ECM-final.pdf

TakeCharge ECM Motors, https://takechargenl.ca/business/product-rebates/electrically-commutated-motors/

Case study source: CIET-TdS Dixon, 2021

Electronically commutated motors (ECM) offer a simple, cost-effective upgrade for fan coil units in HVAC applications, as well as for evaporator fans in refrigerated display cases, walk-in coolers and freezers. ECMs save energy by reducing friction in the motor with permanent magnet technology and integrated speed control. This enables ECMs to achieve overall efficiencies of 60% or greater, compared to 25% efficiency with conventional motors.



Replacing a conventional motor with a new ECM saves energy through reduced motor friction and heat losses, as well as integrated speed control that matches the motor speed to the system load.

Case Study: Municipal Building

An Ontario regional municipality replaced all of the fan coil units in its administration building with high-efficiency fan coil units that have ECMs. Based on data from the manufacturer, this simple retrofit project expects to reduce fan coil unit energy consumption by 70% to 80%, and to reduce peak demand by 80 to 100 W per fan coil unit.

SAVE ON ENERGY™
POWER WHAT'S NEXT

The Save on Energy Retrofit program offers an incentive of $50 for the purchase of an ECM fan motor.

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.