A modern office lobby with a curved, multi-level design. The floor is highly reflective, showing the ceiling and the person walking. A blurred silhouette of a person in a dark shirt and pants is walking across the lobby. The walls are light-colored with large windows. Two large black spheres are on the floor. A blue curved graphic is on the left side of the image.

Solutions for Improving the Energy Efficiency of Your Cooling Systems

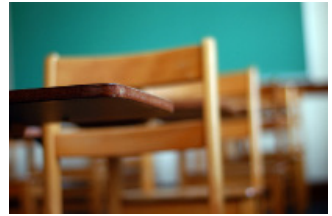
SMARTCOOL™

Smartcool's Solutions

Smartcool delivers cutting edge energy efficiency and cost reduction solutions for businesses around the world.

"We customize our solutions to fit your business, not the other way around. You receive all the benefits of greater energy efficiency without any negative impact on your business."

Steven Martin, Executive Vice President, Smartcool




With solutions tailored to the needs of each client, Smartcool offers the following benefits:

- Direct electricity reduction and improved energy efficiency for all air conditioning, refrigeration and heat pump systems (HVAC-R)
- Reduction of operation and maintenance costs for facilities
- Reduction of carbon footprint and compatibility with green initiatives
- Receive financial incentives such as rebates from utilities & governments

Smartcool's solutions are risk free.

- Compatible with all existing equipment and controls
- Maintain temperature and humidity settings
- Rapid installation with no or minimal system downtime
- Verifiable savings

Start Saving Energy Today



Smartcool can provide you with an energy review of your air conditioning, refrigeration and heat pump usage at no cost and no obligation.

International energy consumption is projected to increase by 50% between now and 2030. Energy costs and greenhouse gas emissions will continue to rise. Energy efficiency can help curb these increases, producing environmental and financial benefits.

Can you afford not to act?

Smartcool's energy review identifies where we can achieve energy savings in your facility and the period for return on investment.

The energy review is the first step to becoming one of the thousands of organizations worldwide that Smartcool has helped to save money and become more energy efficient.

Smartcool's steps to energy savings:

- Complimentary energy review
- Energy savings proposal
- Installation
- Energy & financial savings begin immediately

"We believe we can help your organization to make a difference. Our custom energy review will show you the savings we can achieve and identify your return on investment."

Chris Lefaire, Executive Vice President, North America, Smartcool

The Cooling Challenge

Even with the most modern controls and efficient equipment, Smartcool saves energy.

In HVAC-R systems, compressors consume about 70% of the total energy used by the system.

Conventional control of HVAC-R equipment:

- Temperature naturally varies over the cooling cycle as the load changes and the controls load and unload the system. This creates a control 'band'. At the top of the 'band', the system is working at its maximum efficiency.
- As the temperature in the controlled space (the office, the refrigerator, etc.) is cooled, the system's capacity to continue removing heat from the space drops dramatically.
- At the bottom of the 'band', the system is using almost twice as much energy and time per degree of cooling.



Smartcool reduces the electricity usage (kWh) and demand (kW) of air conditioning, refrigeration and heat pump systems by improving the performance of their compressors while maintaining temperature and humidity control.

Adaptive Energy Efficiency Systems



Smartcool's technology continuously monitors the compressor cycles to identify opportunities for energy savings.

The ECO³™ or ESM™ is installed between the primary controller and the compressor in a customer's HVAC-R system. How savings are achieved is dependent on the nature of the customer's equipment.

Cycle Optimization:

Smartcool's technology dynamically adjusts the length of each cooling cycle in order to help the compressor operate more often within the most efficient suction pressure band.

This solution is used by thousands of packaged air conditioning, refrigeration and heat pump systems around the globe.

Load Modulation:

Smartcool's technology works within existing control methodologies to modulate load for periods of time during the cooling cycle.

This solution is used by thousands of chilled line systems worldwide.

With either solution, the technology will automatically pull itself out of the circuit when necessary to prevent over-cycling or temperature increases. Smartcool's solutions do not impact existing manufacturer warranties.

"The ECO³™ and ESM™ bring our energy efficiency technology to your business, simply by improving the performance of your current equipment. You'll see energy savings right on the display and financial savings in your pocket."

Chris Lefavre, Executive Vice President, North America

Proven Results

Smartcool's energy efficiency solutions have been adopted by some of the world's most prominent companies across a range of industries.

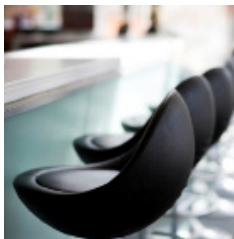
Here are just a few sample results from energy efficiency projects Smartcool has completed for clients with various cooling equipment and needs.



Mission Critical A/C

Annual Energy Savings:
230,400 kWh

Annual GHG Savings:
140,965 kg



Comfort A/C and Heat Pumps

Annual Energy Savings:
187,100 kWh

Annual GHG Savings:
110,200 kg



Commercial Refrigeration

Annual Energy Savings:
150,380 kWh

Annual GHG Savings:
92,000 kg



Industrial Refrigeration

Annual Energy Savings:
166,400 kWh

Annual GHG Savings:
101,800 kg

Full case studies and results from independent third party testing are available online at www.smartcool.net

Contact us to learn more about our solutions, or book your complimentary energy review today.



Smartcool is a global clean technology company helping some of the world's largest organizations enhance their profitability, while lowering their carbon footprint.

Publicly listed on Canada's TSX Venture Exchange (TSX-V: SSC), Smartcool has been recognized for excellence within the clean technology industry.



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