



CoolSolution®



Hockey fans, curlers, even supermarket shoppers – anyone who enjoys the benefits of large-scale refrigeration might be surprised to learn that these seemingly harmless everyday activities may be having an impact on the global climate. The huge cooling systems needed to maintain ice surfaces and keep foods chilled require an enormous amount of refrigerant and energy. Both of which – along with the energy used to keep these buildings warm and comfortable for spectators, players and consumers – create greenhouse gas emissions.

Researchers with Natural Resources Canada (NRCan) have developed a very cool solution to this problem. Environmental impacts of commercial-scale cooling systems can be reduced dramatically. By looking at every part of a building’s heating, ventilation and air conditioning systems, as well as refrigeration equipment, the researchers developed a system that drastically reduces refrigerant losses and uses waste heat from the refrigeration system to warm the building.

Adapted especially for the Canadian climate, Natural Resources Canada’s innovative CoolSolution® practices and technologies are now in use in more than 100 arenas in Canada, where they are reducing energy consumption by as much as 60 percent.

These and other advances in refrigeration technology will be showcased at the Vancouver 2010 Olympic and Paralympic Winter Games, where all skating, hockey and curling venues feature Toronto-based CIMCO Refrigeration’s ECO CHILL system. Developed with the support of Natural Resources Canada, ECO CHILL is designed to recycle 100 percent of the energy used to maintain ice surfaces back into the building’s heating systems.

CoolSolution® is just one example of the Government of Canada’s commitment to innovation and the development of new technologies that is supporting Canada’s efforts to make the 2010 Winter Games socially, economically and environmentally sustainable.

To learn more about NRCan’s work in refrigeration, visit CoolSolution.nrcan.gc.ca.

nrcan-rncan.gc.ca

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