CASE STUDY **Slave Lake - Multi-Rec Centre**

Municipal Climate Change Action Centre

The best ice in Alberta?

Slave Lake is setting the standard for shiny, slick ice

THE CHALLENGE

In 2024, Slave Lake's Multi-Rec Centre (MRC) stood at the heart of the community, bustling with energy and activity. The arena's reputation for having Alberta's finest ice was well-earned, but maintaining that standard came with a price: over 1.2 million kWh of electricity and nearly 11,000 GJ of natural gas were needed to keep the facility running. Those numbers translated into utility bills that stacked up quickly and totalled a hefty $113,000 a year.

But inside the MRC, the story was more than just numbers on a bill. Each winter, the ice was the stage for the beloved annual Treaty 8 Cup, a vibrant indigenous led hockey tournament that drew crowds and athletes from near and far. The ice surface had to be perfect—fast, smooth, and durable—throughout the entire weekend, demanding constant attention from the staff and persistent use of the arena's systems.

Behind the scenes, a dedicated team worked tirelessly, determined to balance the needs of world-class ice with the realities of rising utility costs and aging infrastructure. The challenges were many, but so too were the opportunities for innovation and improvement.

THE SOLUTION

Determined to maintain their proud legacy of some of Alberta's best ice in the face of rising utility costs, the Town set out to re-imagine how their arena operated. With support from MCCAC funding, they invested in innovative solutions that would transform both the ice surface and the community's carbon footprint.

The team added REALice, a technology that lets them flood the rink with cold water instead of hot. By eliminating microscopic air bubbles and impurities, REALice creates a flawless, glassy surface while slashing the natural gas and electricity needed for heating and refrigeration.

Then came the highly durable, reusable arena liners, a sleek alternative to traditional ice paint. Installing these liners was a game-changer: ice-making became faster, staff spent far less time prepping, and the arena saved thousands of dollars each year on paint. The liners' design also improved heat transfer, so the ice plant ran more efficiently. When paired, these innovations revealed crisp lines, vibrant logos, and bold advertisements through clear ice.

Even the Zamboni got an upgrade, swapping propane for electric power, ensuring both rinks stayed in top condition with minimal emissions. Together, these changes reduced bills and emissions and helped Slave Lake continue its reputation for excellence.

THE MUNICIPALITY

The Multi Rec Centre in the **Town of Slave Lake** *is known for having some of Alberta's best ice, thanks to great staff and targeted energy efficiency projects that result in hard, durable, and fast ice surfaces that set quickly after each flood and can withstand heavy tournament use. What does Slave Lake do differently to get these results, and how can other community arenas replicate their success? The secret lies in energy-saving technology.*

Slave Lake accessed rebates from the Government of Alberta via MCCAC's energy efficiency programs, including the Community Energy Conservation program. The $95,000 in funding allowed them to make $165,000 of upgrades over five projects.

FUNDING

$263K

from four MCCAC programs

ACTION

7

energy conservation projects

SUCCESS

123 t↓

greenhouse gas emissions savings per year

193K↓

kWh annual electricity savings

$31K↓

energy cost annual utility cost savings

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SMOOTH TRANSITIONS FOR THE MRC

THE PROBLEM	THE FIX
Traditionally, ice lines are painted on an initial layer of ice, and then additional layers are added on top, which is a time-consuming process	Reusable liner eliminates staff time, takes less time to freeze, and looks sharp. Rebate: $37,500. Yearly savings: $8,700
Hot water is used when building and flooding the ice to remove impurities. While this works, it requires a substantial amount of natural gas to heat the water	A REALice system removes impurities without heating. This reduces natural gas consumption and therefore costs. Rebate: $26,700. Yearly savings: $7,900
EV charging in the Town was extremely limited, specifically level 3 charging	Level 3 chargers installed at the MRC provide a fast-charging option for EV drivers. Rebate: $124,000
Propane ice resurfacers emit exhaust fumes and can be costly to operate	Electric ice resurfacers eliminate any indoor emissions. Rebate: $43,000
Indoor lights were as old as each section of the building, dating as far back as the 1970s	Installation of 144 LED T8 lamps. Rebate: $10,300. Yearly savings: $8,600
Outdoor lights were inefficient and ineffective	Installation of 37 high-efficiency LED light fixtures. Rebate: $11,600. Yearly savings: $4,800

WHAT ARE LOCALS SAYING?

"These upgrades demonstrate the Town's commitment to investing in projects that improve operational efficiency, reduce costs, and support environmental sustainability. We are grateful to MCCAC's funding supporting projects that benefit both our community and the environment."

Joe Dixon, Director of Community Services

THE COMMUNITY ENERGY CONSERVATION PROGRAM

The Community Energy Conservation (CEC) program provides financial rebates to municipalities to help identify energy-saving opportunities and implement retrofit projects in municipally-owned facilities. The CEC program helps facilities save energy, save money, and become more comfortable, thanks to a grant from the Government of Alberta. The program was designed and delivered by the Municipal Climate Change Action Centre, a partnership of:

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