



Something for Everyone

Implementing comprehensive conservation measures and adding solar power at Servus Credit Union Place led to significant cost savings for St. Albert's most energy intensive municipal building.

THE CHALLENGE

St. Albert's multi-purpose leisure facility, Servus Credit Union Place, receives over 1.5 million visitors a year. With so much to offer, the 15 year old facility is the greatest energy consumer of all St. Albert's municipal facilities—emitting 6,075 tonnes of greenhouse gases in 2019.

THE SOLUTION

To significantly cut back on Servus Place's energy needs, the City of St. Albert's Municipal Energy Specialist initiated four major projects, targeted to take advantage of the Action Centre's grants and rebates.

Over the course of 2020–21, Servus Place was upgraded with eight variable frequency drives in the aquatic centre, a REALice water treatment system for one arena, and retrofitted LED lighting systems in parts of the facility. Additionally, the largest solar panel array in St. Albert was installed on the rooftop, generating 1.1 MW of electricity.

Together, these improvements eliminated 1,160 tonnes of annual greenhouse gas emissions and save close to \$200,000 every year.

SERVUS PLACE

St. Albert, the second-largest city in the Edmonton Metropolitan Region, is home to Servus Credit Union Place. With over 320,000 ft² of recreational facilities, including four ice rinks, an aquatic centre, a fitness centre, indoor playground, gymnasium and two field houses, "there is something for everyone" at Servus Place.



GOAL

PROJECTS

SUCCESS

20% ↓

greenhouse gas emissions reduction below 2019 levels

4 🔧

energy conservation and renewable energy projects

1,160t ↓

greenhouse gas emissions annual reduction

20% ↓

greenhouse gas emissions reduction below 2019 levels

\$198,585 ↓

annual utility cost savings

MEET THE MUNICIPAL ENERGY MANAGER



Cassie Kupsch, Municipal Energy Specialist

Cassie Kupsch is a Mechanical Engineer and Energy Manager In-Training with the City of St. Albert. Since 2019, Cassie Kupsch has been supporting renewable energy and energy efficiency-related projects to advance the City's GHG reduction goals and realize cost savings for the City of St. Albert as their Municipal Energy Specialist.



LESSONS LEARNED

Focusing efforts on their most energy-intensive facility enabled the City of St. Albert to quickly gain significant financial savings. These savings will allow for further upgrades and retrofits in the future.

In fact, as of 2022 the City of St. Albert is planning to continue the upgrades by adding another REALice water treatment system, to retrofit the remaining lighting systems with LEDs, and to install electric vehicle charging stations in the parking lot.

Together, these upgrades would eliminate another 120 tonnes of greenhouse gas emissions each year.

Strategically selecting projects based on the Action Centre's grants and rebates (including the Alberta Municipal Solar Program and Recreation Energy Conservation Program) reduced the payback period, which helps build a business case for the upgrades.

KEY ACTIONS IMPLEMENTED

- 🔑 Reducing flood water temperature: resurfacing the ice with 4°C water instead of 52°C saves energy, reduces the load on compressors and allows brine temperature to warm several degrees, all while maintaining ice quality.
- 🔑 Lighting retrofit: LEDs produce higher quality light than fluorescent, use a fraction of the energy compared to halogens, and last tens of thousands of hours longer, reducing maintenance costs.
- 🔑 Installing variable frequency drives (VFDs): running motors only as needed reduces electricity loads and increases the lifespan of the motors.
- 🔑 Adding solar power: generating electricity from solar reduces greenhouse gas emissions and provides energy security.



THE MUNICIPAL ENERGY MANAGER PROGRAM

The Municipal Energy Manager Program provides funding for Alberta municipalities to hire an energy manager. Participating municipalities receive up to \$80,000 in salary to hire a professional to develop energy management plans, improve building performance, and produce noticeable energy savings.

The program was designed and delivered by the Municipal Climate Change Action Centre, a partnership of:

