



WELCOME TO EFFICIENCY MANITOBA'S PRESENTATION ON ENERGY EFFICIENCY PROGRAMS FOR MUNICIPAL BUILDINGS

We'll get started at 1:00 p.m.



WELCOME & INTRODUCTIONS

EFFICIENCY MANITOBA PRESENTERS



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AGENDA

- Land acknowledgement
- Why energy efficiency
- Brief overview of Efficiency Manitoba
- Resources & tools
- Available Programs & Offers
- No & low cost savings opportunities
- Question and Answer period

We start by acknowledging that Efficiency Manitoba operates on Treaty 1 territory, the traditional gathering place of the Anishinaabeg, Cree, Oji-Cree, Dakota and Dene people, and the traditional homeland of the Métis people, and heart of the Metis Nation. It's also important to acknowledge, that we work with and serve, all 5 treaty territories. Every time we acknowledge this truth, we have an invitation, and an opportunity, to reflect on what we do, and what we can do, to make Manitoba a better place for everyone who lives here.

WHY ENERGY EFFICIENCY?

WHY IS ENERGY EFFICIENCY IMPORTANT?



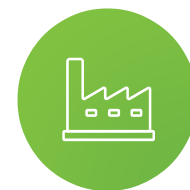
Reduces energy use and costs



Mitigates customer bill increases as energy rates increase



Reduces greenhouse gas (GHG) emissions (natural gas)



Defers the need for new infrastructure in Manitoba



Supports green jobs and economic growth

A BRIEF OVERVIEW OF EFFICIENCY MANITOBA

WHO ARE WE?



- A new Crown corporation dedicated to achieving significant annual energy savings targets
- Manitoba's one-stop-shop for energy efficiency programs and information
- Funded by Manitoba Hydro with approximately \$32.3 million from the Government of Canada's Low Carbon Economy Leadership Fund

OUR HISTORY

Efficiency Manitoba Act
proclaimed

Efficiency Manitoba Board of
Directors appointed

Province announced Efficiency
Manitoba CEO

2019



Ministerial approval of
2020-23 Efficiency Plan
with amendments

Official commencement
on April 1, 2020



2018

Submission of the
2020-23 Efficiency Plan to the
Public Utilities Board

3-month regulatory process
including a public hearing



2020

OUR MANDATE



1.5%

Reduce Manitoba's electricity consumption by 1.5% annually



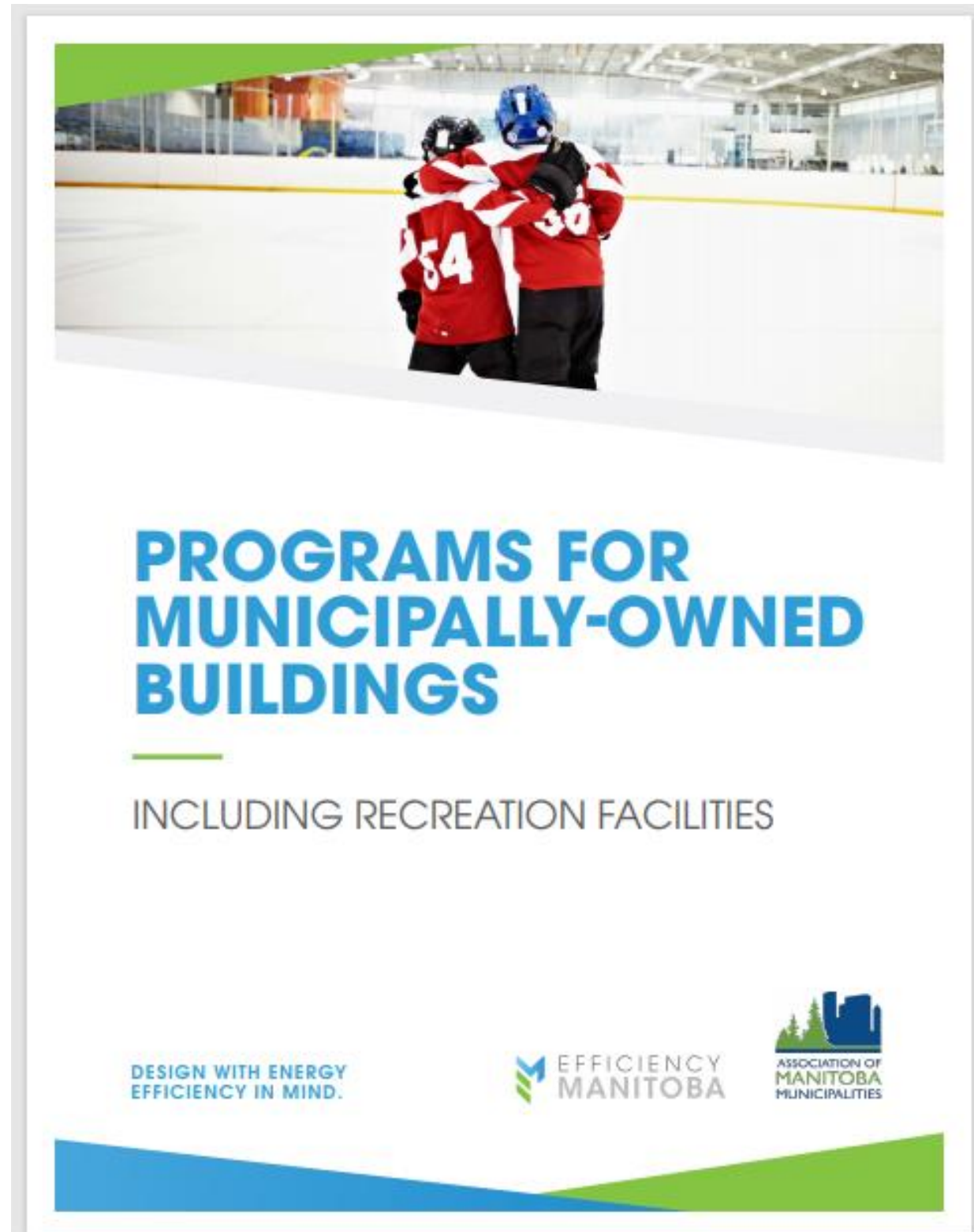
0.75%

Reduce Manitoba's natural gas consumption by 0.75% annually

- ✓ Achieve aggressive savings targets
- ✓ Deliver cost-effective efficiency programs and services
- ✓ Create programs for as many Manitobans as possible to participate
- ✓ Promote involvement of the private sector

RESOURCES & TOOLS

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- Efficiency Manitoba Programs for Municipally-Owned Buildings Including Recreation Facilities – *a brochure highlighting popular programs most common for municipal buildings.*
efficiencymb.ca/municipalbrochure

RESOURCES & TOOLS



ENERGY EFFICIENCY GUIDE

FOR MUNICIPAL
RECREATION FACILITIES

DESIGN WITH ENERGY
EFFICIENCY IN MIND.

EFFICIENCY
MANITOBA

ASSOCIATION OF
MANITOBA
MUNICIPALITIES

- Energy Efficiency Guide for Municipal Recreation Facilities – *a 100 page comprehensive guide to help facility operators identify no and low cost savings opportunities.*

efficiencymb.ca/recguide

PROGRAMS & OFFERS

NEW CONSTRUCTION

NEW CONSTRUCTION



- Efficiency Manitoba's New Buildings Program provides you with incentives for energy modelling and construction when you design and build a new energy-efficient building.
- Enjoy lower heating and cooling costs, less condensation and drafts, improved occupant comfort, improved building aesthetics, increased building value, and a reduced environmental footprint.

NEW CONSTRUCTION – OFFER DETAILS



- Design and construct a new, energy efficient commercial or institutional building
- Receive up to \$10,000 toward energy modelling
- Receive up to \$2.00/square foot toward construction
- Must apply before tender date and before construction permit issued

SMALL BUSINESS PROGRAM FOR SMALL MUNICIPAL BUILDINGS

SMALL BUSINESS PROGRAM FOR SMALL MUNICIPAL BUILDINGS



- Available starting July 1st for municipal buildings 15,000 square feet or smaller (excludes square feet of ice surfaces).
- Free Basic energy-efficient upgrades as well as a free lighting and insulation assessment.
- Premium upgrades, for which Efficiency Manitoba covers 70% of the total project cost of your lighting and insulation project, including materials and installation.
- Efficiency Manitoba's service provider, Ecofitt, will work with you to install your new energy-efficient upgrades.

SMALL MUNICIPAL BUILDINGS – OFFER DETAILS



Basic Upgrade

- Free A-line LED bulbs to help you save instantly on your energy bill.
- Free faucet aerators, showerheads, and pre-rinse spray valves to help you save instantly on your water and energy bills.
- Free installation.
- Free lighting and insulation assessment to find out how you can save more.

SMALL MUNICIPAL BUILDINGS – OFFER DETAILS



Premium Upgrade

- LED linear lamps.
- Specialty LED bulbs.
- LED exit signs.
- Lighting controls.
- Smart thermostats.
- Open attic insulation for pitched roofs.
- We cover 70% of all material and installation costs.

BUSINESS LIGHTING PROGRAM FOR MUNICIPAL BUILDINGS

BUSINESS LIGHTING PROGRAM FOR MUNICIPAL BUILDINGS



- Your building's indoor and outdoor lighting can use a considerable amount of energy. The Business Lighting Program can help you lower your energy bills and reduce your maintenance costs.
- When you upgrade to energy-efficient LED lighting, you can receive incentives covering a significant portion of your lighting material costs. LEDs use significantly less energy than traditional lighting and can be easily customized for your building's needs.

LIGHTING FOR MUNICIPAL BUILDINGS – OFFER DETAILS



LED Lamps

- Screw-in, Specialty, T-LED

LED Fixtures

- Fixtures, Retrofit Kits

Lighting Controls

- Occupancy Sensors
- Control Systems

LED Backlit Signs

INSULATION & WINDOWS

INSULATION & WINDOWS



- By installing roof insulation, wall insulation, and high-performance windows, you can reduce your energy costs and extend the life of your building.
- The Building Envelope Program can cover up to 100% of your insulation material costs or the incremental cost of high-performance versus standard window.
- Benefits include lower heating and cooling costs, less condensation, reduced outdoor noise infiltration, and improved indoor comfort and air quality.

GROUND SOURCE HEAT PUMPS

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- Ground source heat pumps are efficient, economical, and environmentally friendly.
- Upgrading to a ground source heat pump can reduce your current electric heating costs by up to 60% and protect you from the impacts of future heating costs.
- Incentives are available to make your upgrade easier and more affordable –up to \$2.50 per square foot heated by a ground source heat pump system.

ENERGY MANAGER INITIATIVE

ENERGY MANAGER INITIATIVE

- Provides co-funding for a municipality to hire or appoint an energy manager to develop and implement an energy management program.
- Agreements last for three years, and incentives provided through the initiative are in addition to incentives provided by other Efficiency Manitoba programs.
- Funding to train the energy manager (\$5,000 per year is available for professional development) and to conduct an energy management assessment (\$10,000 is available for retaining consulting services).



COMMUNITY ENERGY EFFICIENCY PROGRAM

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- Municipalities are provided with the support to hire an Energy Efficiency Advocate to create and implement community energy efficiency plans with guidance from Efficiency Manitoba's energy experts.
- These plans help communities lower their overall energy consumption by taking part in Efficiency Manitoba's programs. Hired by the municipality, the energy efficiency advocate helps foster a culture of conservation in the community, empowering its citizens to participate in energy-saving initiatives.

COMMUNITY ENERGY EFFICIENCY PROGRAM – OFFER DETAILS

Funding

	Year One	Year Two
Population > 5,000	80% of Advocate's salary to a maximum of \$40,000	80% of Advocate's salary to a maximum of \$40,000
Population < 5,000	80% of Advocate's salary to a maximum of \$25,000	80% of Advocate's salary to a maximum of \$25,000

* Only one position can be funded per Municipality or partnership.

- Neighboring municipalities can partner to share an Energy Efficiency Advocate.
- The next call for interested municipalities will take place in the fall of 2021.
- Efficiency Manitoba will work through the AMM to ensure all municipalities are aware of the opportunity in the fall.

COMMUNITY ENERGY EFFICIENCY PROGRAM



- City of Selkirk is the first municipality to receive funding for an Energy Efficiency Advocate through Efficiency Manitoba's Community Energy Efficiency Program.
- Selkirk will receive funding over two years to employ a local Energy Efficiency Advocate, who will identify and facilitate energy-efficient upgrades within the community

CUSTOM ENERGY SOLUTIONS

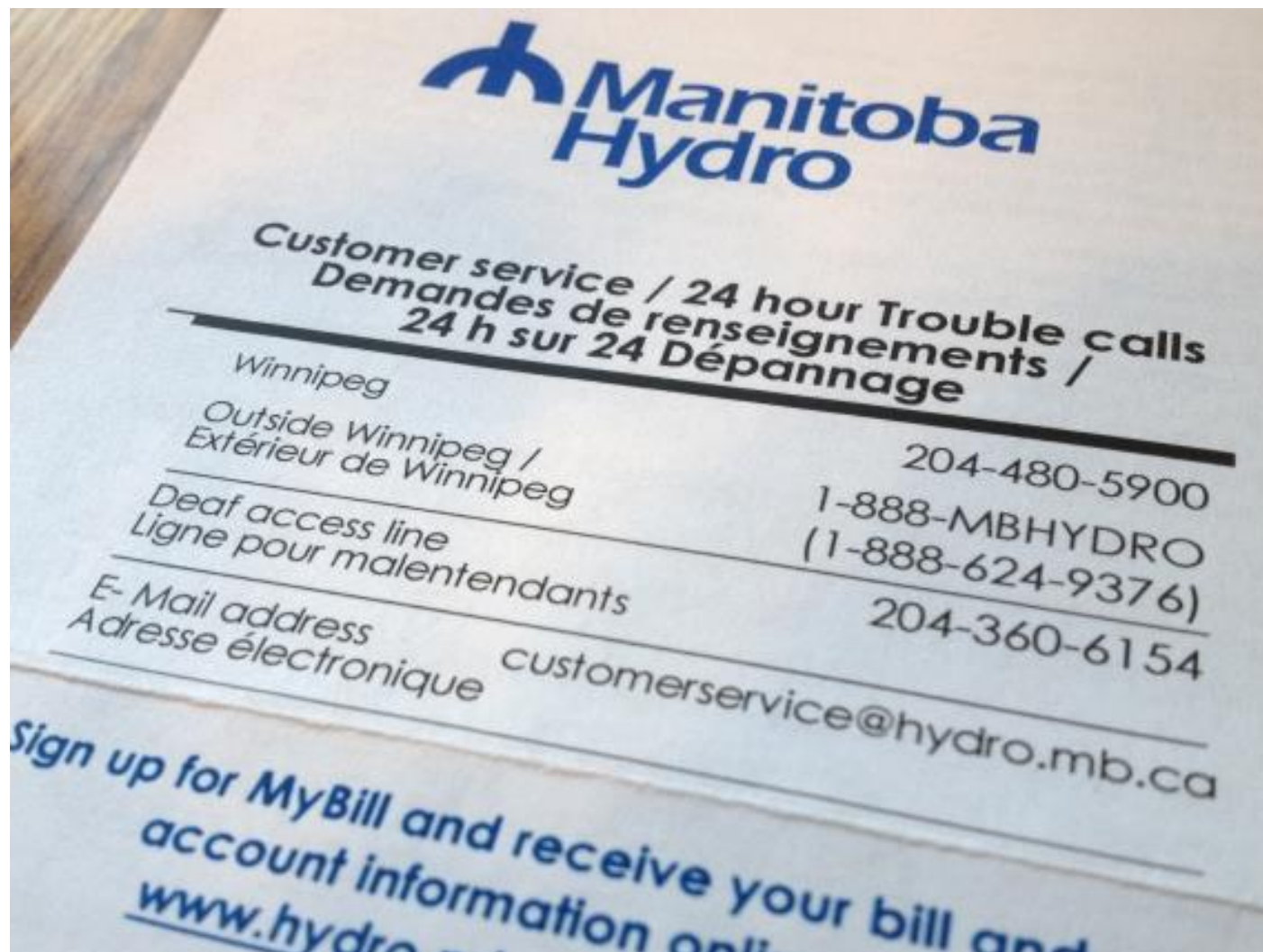
CUSTOM ENERGY SOLUTIONS



- Efficiency Manitoba can help you save on electricity and natural gas usage with measures that are designed specifically for your facility.
- Successful past projects include ice plant heat recovery for shower and flood water, low-emissivity ceilings, brine pump cycling, floating head pressure controls and raised suction pressures, oversized condensers, and high efficiency compressors.

NO & LOW COST SAVINGS OPPORTUNITIES

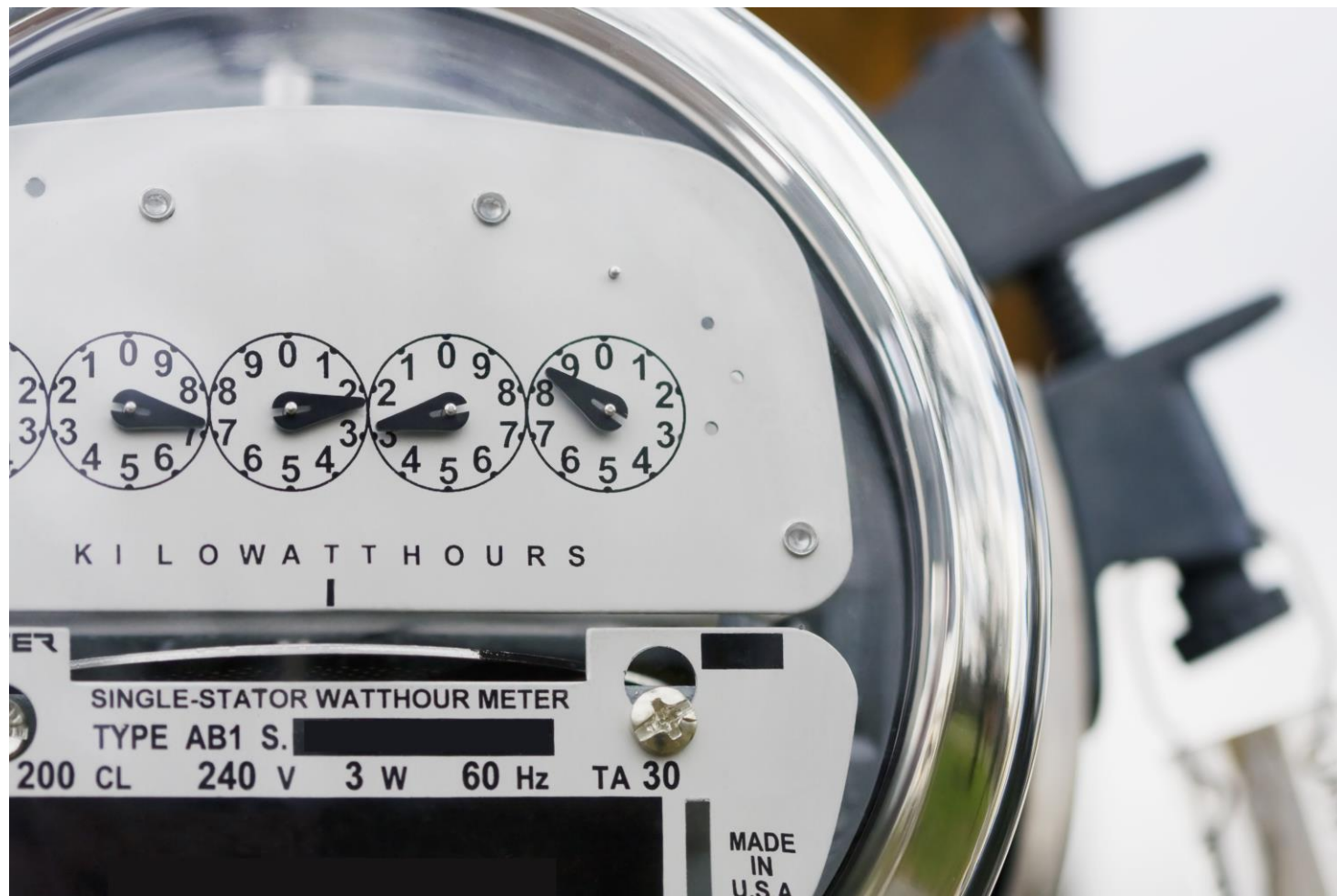
ELECTRICITY BILLS EXPLAINED



Bills are comprised of these charges:

- Basic Charge
 - This includes the direct costs of metering, portions of the distribution system, as well as billing and customer service administration.
- Energy Charge
 - That portion of the charge for electric service based upon the electric energy (kWh) consumed.
- Demand Charge
 - That portion of the charge for electric service based upon the peak electric capacity (kVA) required each month.
- Taxes

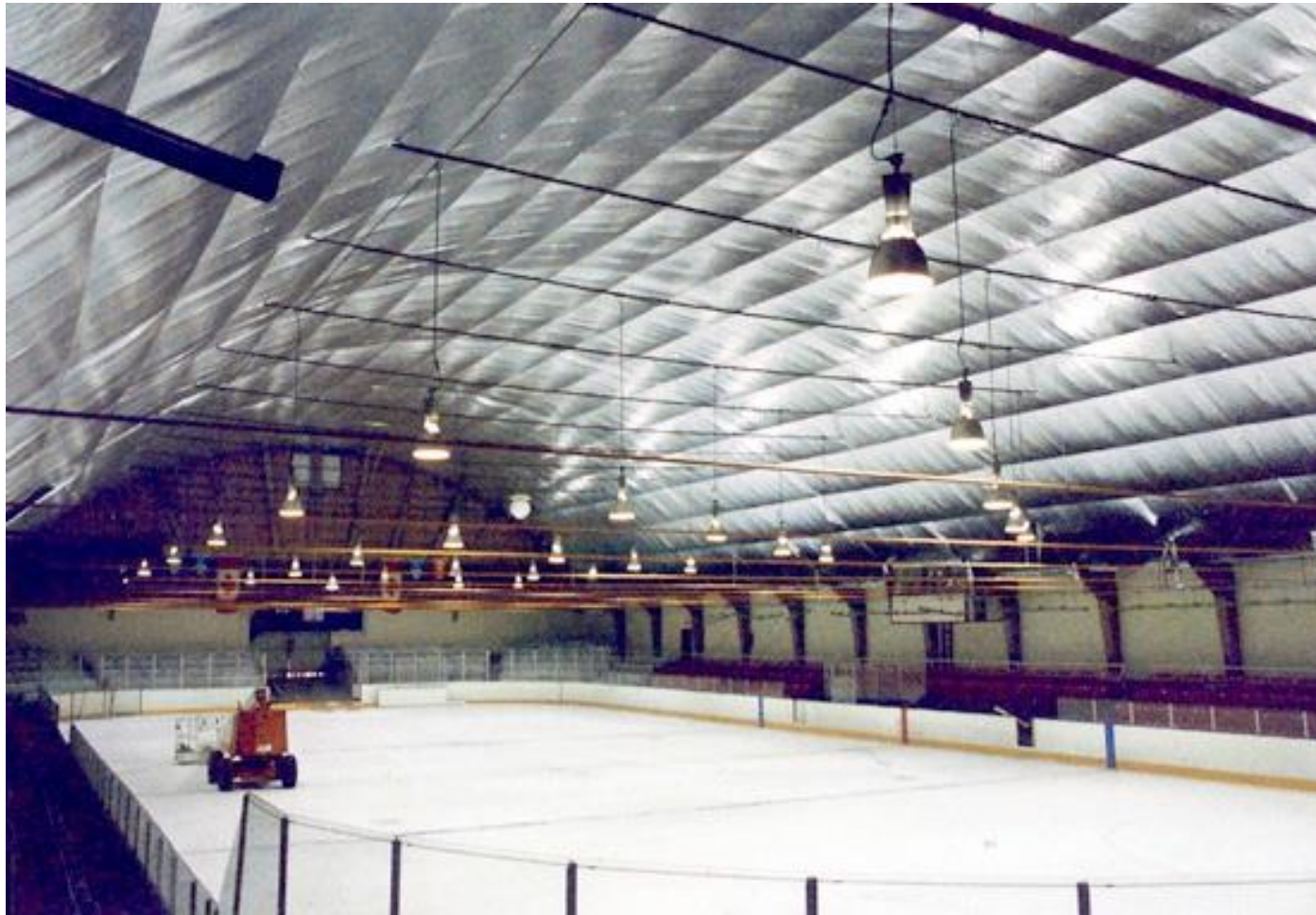
DEMAND CHARGES EXPLAINED



Demand Charges:

- Peak demand is the peak rate of demand for power in kilovolt-amps (kVA) recorded since the last meter reading.
- The billed demand is the highest actual demand recorded in a 15 minute floating time frame. Therefore, a motor has to operate for only 15 minutes to set the demand for the entire month.

REDUCING DEMAND CHARGES



Reducing Demand Charges:

- Manually schedule equipment operation to ensure that major equipment is not all on at the same time (unforgiving of mistakes).
- Electrical interlocks to prevent 2 pieces of equipment from operating at the same time.
- Automatic systems which monitor building demand & turn off selected (non-essential) loads on an assigned priority basis.
- Coordinate the startup and shutdown of the ice plant with the electric meter reading:
 - Read the meter before startup in the fall.
 - Read the meter after shutdown in the spring.

NO & LOW COST SAVINGS OPPORTUNITIES



- Temperature setback during unoccupied periods (caution if using electric heat – may increase demand charge).
- Ice thickness of 1 inch.
- Switch fuel source (natural gas usually cheaper than electricity).
- Dump ice shavings outside.
- Only heat shed when spectators are in attendance.

NO & LOW COST SAVINGS OPPORTUNITIES – CONTINUED...



- Unplug and turnoff equipment during summer shutdown including fridges, freezers, beverage coolers, heaters, and lights.
- Benchmark your facility to similar facilities.
- Optimize ice temperatures:
 - 20 F to 22 F for hockey
 - 24 F to 26 F for figure skating
 - 26 F to 28 F for recreational skating
- Optimize bring temperatures:
 - 16 F supply and 18 F return for hockey
 - 22 F supply and 24 F return for curling

THANK YOU

QUESTION AND ANSWER PERIOD

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CONNECT WITH US



FOLLOW



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