

BIG MOVE 7



Big Move Seven: Clean and Re-Energize Industry

The industrial sector is anticipated to be responsible for one-third of Regina's total emissions from 2016 to 2050 under a business-as-planned scenario. While the City has limited direct input on the operational choices of existing industry, industry energy and emissions profiles are being shaped by other factors. These factors include federal regulations and consumer demand. Increasing process efficiency can be explored by companies to reduce energy use expenditures. The City can facilitate this advancement by hosting working groups, sharing the best practices, and publicly showing support.

After efficiency measures, the industrial sector must consider alternative fuels. This is driven by carbon pricing, which compels some industries to electrify their process or choose fuels such as renewable natural gas or biodiesel.

Understanding the Sector: Primary Industry

Primary industry includes any industry that is involved with the extraction of natural resources from the earth so they can be converted to products used by people. In other words, the term primary relates to the interaction with natural materials, not with the size of the industry in the community. Primary industries that are present in Regina include oil and gas and mining. These industries support the community's economy and employ approximately one percent of the community's labour force.¹⁰

When industry already exists in a community, the local government has relatively little ability to control its activities because they are typically regulated by the federal government. This does not mean, however, that there is no movement in industry toward lowering emissions.

Federal regulations continue to evolve and are requiring primary industry to lower emissions. An example of this is the federal carbon tax. Industry, like all other businesses, is also influenced by consumer demand. As the world shifts towards renewable energy, there is lesser demand from consumers for fossil-fuel-based energy and products. Therefore, there is an economic and business imperative for industry to adapt and not be left behind.

In Regina, Federated Co-operatives Ltd. recently announced its plans to be a net-zero entity by 2050. This is a commendable target and a significant market signal, considering the co-operative's size, economic influence, and roots in the fossil-fuel industry.

¹⁰ Communication with Economic Development Regina.

Big Move Seven: Clean and Re-energize Industry Actions

ACTION	GREENHOUSE GAS (GHG) IMPACT	CO-BENEFITS	COST	IMPLEMENTATION MECHANISMS	TIMING
7.1 Industrial efficiencies		Equity: Enabler Employment: Medium Cost Effectiveness: Medium	\$\$\$\$\$	Program: Industry energy roundtable.	Start: 2023 Completion: 2045
7.2 Industrial energy shift: renewable natural gas and hydrogen		Equity: Enabler Employment: Medium Cost Effectiveness: Low	\$\$\$\$\$	Program: Industry energy roundtable.	Start: 2035 Completion: 2050
7.3 Industrial process heat shift: electrification		Equity: Enabler Employment: Medium Cost Effectiveness: Medium	\$\$\$\$\$	Initiative: Industrial waste heat feasibility study.	Start: Immediately Completion: 2050
7.4 Primary industry implements net-zero targets	Unknown	Unknown	Unknown	Program: Industry energy roundtable.	Start: 2023 Completion: 2050

GHG IMPACT

- Low: <1,000 ktCO₂e
- Medium: 1,000 – 2,000 ktCO₂e
- High: >2,000 ktCO₂e

CO-BENEFITS

- EQUITY –**
- Enabler:** No discernible direct effect, but positive outcomes may occur in concert with other actions
 - Low:** May favour certain groups or create greater disparity
 - Medium:** More likely to be implemented fairly, but existing powerful groups may still be at an advantage
 - High:** Contributes to enhanced equity

- EMPLOYMENT –**
- Enabler:** Enables employment
 - Low:** 0 – 5 person years of employment per \$million invested
 - Medium:** 5 – 10 person years of employment per \$million invested
 - High:** >10 person years of employment per \$million invested

- COST EFFECTIVENESS –**
- Low:** This action will have a net cost
 - Medium:** This action will break even
 - High:** This action will have a net return/benefit.

COST

- \$\$\$\$\$ <\$1 million
- \$\$\$\$ \$1 million – \$100 million
- \$\$\$ \$100 million – \$500 million
- \$\$\$ \$500 million – \$1 billion
- \$\$\$\$ >\$1 billion