Figures accurate as of August 19, 2025

Emissions Reduction Alberta (ERA) reports on its activities on a quarterly basis. Figures are updated following each ERA Board meeting. For detailed information on projects and funding opportunities visit ERAlberta.ca.

STEEPER DRIVES ALBERTA'S LEADERSHIP IN NEXT-GEN RENEWABLE FUELS

Steeper Energy Canada Ltd. has reached a major milestone. The company successfully demonstrated its Hydrofaction® technology, an Alberta-led innovation that converts forestry and agricultural residues into low-carbon biocrude, highlighting the province's role as a leader in the global transition to sustainable fuel solutions.

"The project shows the social and environmental benefits of utilizing waste biomass that would otherwise be burned, landfilled, or left to decompose, such as reducing fire hazards, improving air quality, and enhancing soil health," said Doug Greening, Project Development Manager at Steeper Energy. "Beyond environmental benefits, the commercialization of Hydrofaction® technology will drive economic growth for Alberta, creating significant employment opportunities."

Hydrofaction® uses catalytic, supercritical water chemistry to transform biomass into biocrude oil. The resulting low-carbon fuel can be refined into diesel, marine fuel, and Sustainable Aviation Fuel—each one compatible with existing petroleum infrastructure.

"Alberta's abundant biomass residues and well-developed energy infrastructure, combined with Steeper Energy's Hydrofaction® technology, offer a viable economic pathway for forestry residues while reducing greenhouse gas emissions," said Greening.

Supported by a $5 million investment from Emissions Reduction Alberta (ERA), the project confirmed that the biocrude is consistent, high quality, and can be co-processed with local petroleum feedstocks.

The team completed assessments and explored plant design. A facility could process 2,000 barrels per day, create 2,500 jobs during construction, and 30 permanent positions upon completion.

"The achievements of this project, made possible through ERA's support, mark a significant milestone in Alberta's transition to a cleaner energy future," says Greening. "By harnessing the province's biomass resources and advancing cutting-edge technology, Steeper Energy is paving the way for reduced emissions, strengthened local economies, and continued leadership in renewable fuel production."

ALBERTA'S FIRST AND ONLY PAPER MILL PLANS TO UPGRADE EQUIPMENT

The first and only paper mill in the province, Alberta Newsprint Company (ANC), uses over 1% of the province's total electricity consumption. That's a massive emissions impact, but the mill is stepping up to reduce its footprint.

Producing high-quality newsprint and specialty-grade paper for customers across North America, and employing over 200 people, ANC is consistently ranked among the most energy efficient and highest quality paper producers on the continent.

"Energy accounts for 40 per cent of our operating costs," explains Surendra Singh, Director of Energy and Technology at ANC. "As an electricity-intensive and trade-exposed company, as well as a competitor with paper mills around the world, being energy efficient is an absolute necessity for us."

After being awarded $10 million in funding through ERA's Industrial Transformation Challenge to make upgrades to its papermaking process and equipment, ANC applied for the Strategic Energy Management for Industry (SEMI) program.

One of ANC's SEMI-supported projects is to upgrade the feeding system for their thermomechanical pulping (TMP) refiner line, a system that processes wood chips into pulp. Financial incentives from SEMI will allow ANC to replace four motors with a single, 150-horsepower PeriFeeder system.

"Equipment upgrades will help us reduce both greenhouse gas emissions and electricity use," says Poorna Chandra, Energy & Compliance Manager at ANC. "With SEMI's support, we're not only reducing our carbon footprint but also creating a blueprint for sustainable, resilient papermaking in Alberta."

ANC is also planning to implement an energy management information system (EMIS) with support from SEMI. For years, the mill has been tracking its energy usage manually.

"We always envisioned having an energy management information system to track our consumption across the facility. With ERA funding, we can justify the investment, giving us the data and control we need to optimize our real-time energy use," says Singh.

ERA's SEMI program provides industrial and manufacturing facilities with knowledge, expertise, and training in energy management. SEMI helps organizations increase profitability by reducing energy costs, growing skills and capacity building, and helping cover the cost of capital retrofits.

STEEPER ENERGY'S HYDROFACTION® TECHNOLOGY TRANSFORMS BIOMASS WASTE INTO VALUABLE LOW-CARBON FUELS

ALBERTA NEWSPRINT COMPANY IS PAVING THE WAY IN EMISSIONS REDUCTION WITH ERA-SUPPORTED ENERGY EFFICIENCY UPGRADES

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ERA is a legal tradename of the Climate Change and Emissions Management (CCEMC) Corporation and receives its funding from the Government of Alberta through the Technology Innovation Emissions Reduction (TIER) Fund.

Alberta

INVESTMENT IN TECHNOLOGY INNOVATION

320 Projects*

- **EMERGING ENERGY** (59 Projects)
- **CIRCULAR ECONOMY** (38 Projects)
- **IMPROVED EFFICIENCY** (86 Projects)
- **INDUSTRIAL DECARBONIZATION** (64 Projects)
- **CARBON MANAGEMENT** (70 Projects)

*In 2012, ERA provided $7 million in funding for three adaptation projects worth $7 million in consultation with Alberta Environment and Parks.

5.8:1* LEVERAGED FUNDING FROM PUBLIC AND PRIVATE INVESTORS

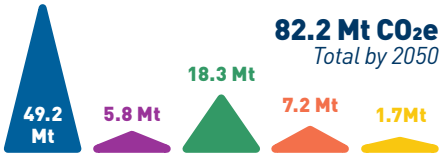
Note: To ensure accuracy of the leverage ratio, projects with high project costs are capped at $1B as these are considered an outlier.

CUMULATIVE PROJECT EMISSION REDUCTIONS

Note: GHG claims are subject to the disclaimer provided below.

28.8 Mt CO_2e *Total by 2030*

82.2 Mt CO_2e *Total by 2050*



Note: GHG claims are subject to the disclaimer provided below. We have estimated emission reductions for all projects with approved funding commitments and executed funding agreements and assumed the projects will continue successfully and as planned. Should circumstances change for these projects, emission reduction estimates may change materially.

ENERGY EFFICIENCY PROGRAMS

ENERGY SAVINGS FOR BUSINESS

STRATEGIC ENERGY MANAGEMENT FOR INDUSTRY

PROJECTS **2155**
INVESTED **$57 MILLION**
JOBS CREATED **1490**
AB GDP CONTRIBUTION **$189.1 MILLION**
ESTIMATED EMISSIONS REDUCED **4.48 Mt**

ALL PROJECTS

51,009 PERSON-YEAR** **JOBS IN ALBERTA** BY 2027
$8.19 BILLION GDP IMPACT **TO ALBERTA** BY 2027

+

69,935 PERSON-YEAR** **JOBS IN CANADA** BY 2027
$10.99 BILLION GDP IMPACT **TO CANADA** BY 2027

**A person-year is equal to one-year of employment for one individual. Please note: economic impact is reported on a calendar year basis, not fiscal year.

FUNDING BY SECTOR