



ADVANCED MATERIALS CHALLENGE



Speaker introductions

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Housekeeping

- Microphones are muted
- If you called by telephone, select “telephone” and enter your audio PIN
- Type questions into the “Questions” section of the control panel
- We answer as many questions as possible after the presentation
- If you have technical difficulty during the webinar (interface or audio) contact Kevin at kduncan@eralberta.ca
- Webinar is being recorded and will be posted on our website

Agenda

- About Emissions Reduction Alberta (ERA)
- Advanced Materials Challenge Overview
 - Scope and eligibility
 - Submission and evaluation process
 - Timelines
- Advice for preparing a successful submission
- Q&A

About ERA

MANDATE

Reduce GHG emissions and grow Alberta's economy by accelerating the development and adoption of innovative technology solutions.

VISION

Alberta has competitive industries that deliver sustainable environmental outcomes, attract investment, and are building a diversified, lower carbon economy.

STRATEGIC PRIORITIES



TECHNOLOGY INNOVATION

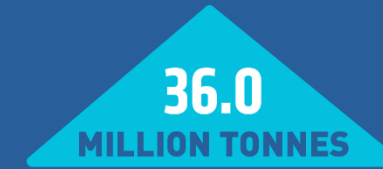
\$954M

TOTAL INVESTMENT

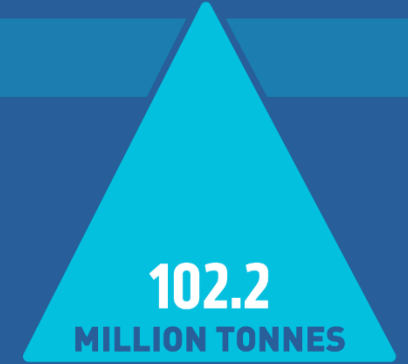


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PROJECTS



36.0
MILLION TONNES
OF CUMULATIVE
EMISSIONS
REDUCTION BY 2030



102.2
MILLION TONNES
OF CUMULATIVE
EMISSIONS
REDUCTION BY 2050

\$7.42 BILLION

TOTAL
PROJECT
VALUE



6.8:1

LEVERAGED
FUNDING
FROM PUBLIC
AND PRIVATE
INVESTORS

ACCELERATING UPTAKE OF COMMERCIAL-READY TECHNOLOGIES THROUGH THE ENERGY SAVINGS FOR BUSINESS PROGRAM

\$47M
INVESTED



2143

PROJECTS SUPPORTED
THROUGH THE ENERGY
SAVINGS FOR
BUSINESS PORTFOLIO

3.7 MT

OF LIFETIME
EMISSIONS
REDUCED



ALL PROJECTS

46,505



PERSON-YEAR
JOBS IN ALBERTA

BY 2027



\$6.99 BILLION

GDP IMPACT TO
ALBERTA BY 2027

63,409

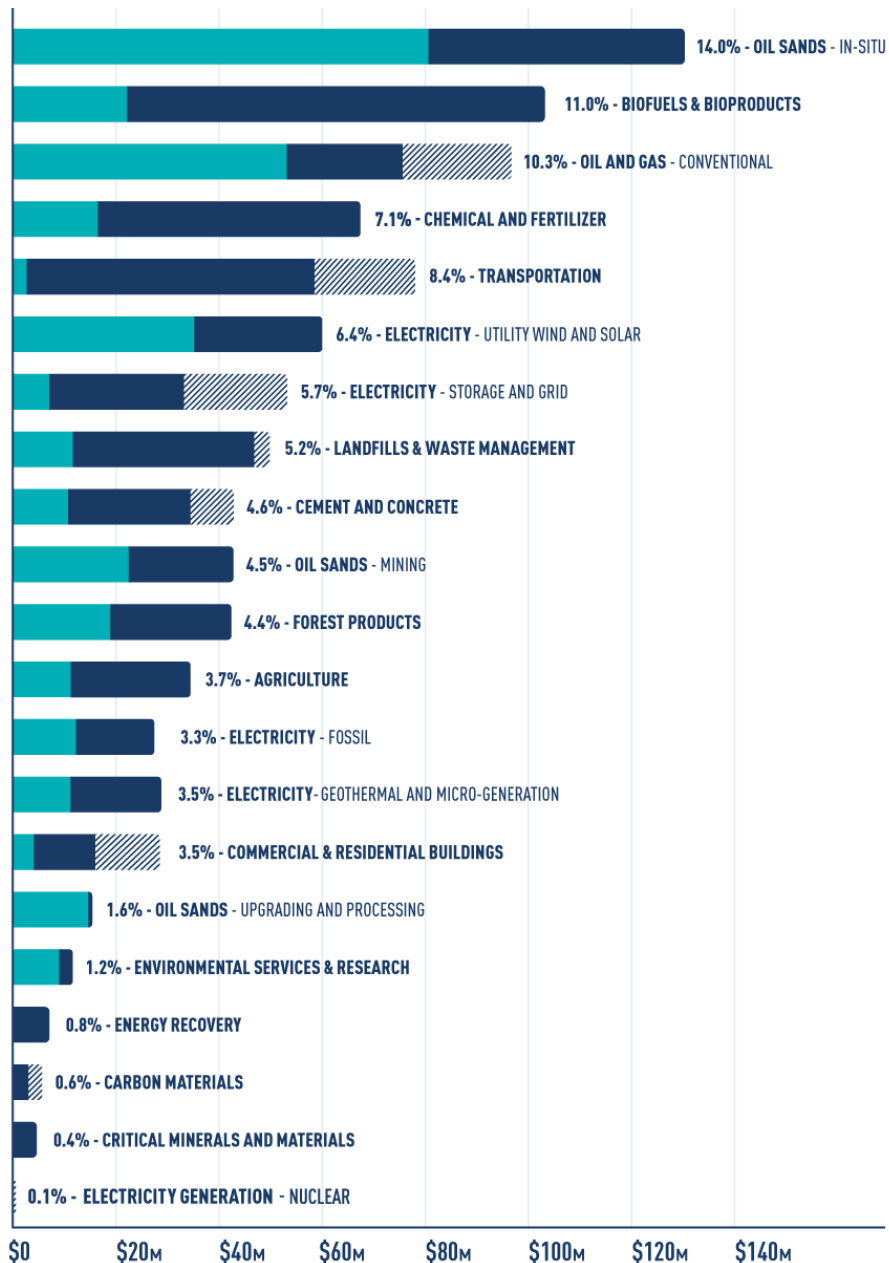


PERSON-YEAR
JOBS IN CANADA

BY 2027

\$9.26 BILLION

GDP IMPACT TO
CANADA BY 2027



INVESTING IN A BALANCED PORTFOLIO: ERA'S INVESTMENTS BY SECTOR

COMPLETED

Projects have completed all requirements as per the contribution agreement.

IN PROGRESS

Projects have an executed contribution agreement. Funds have been committed.

CONTRACTING

Projects approved for funding but in the process of executing the contribution agreement.

**FIFTH
EDITION**

PUBLISHED
OCTOBER 2024

EMISSIONS
REDUCTION
ALBERTA

**TECHNOLOGY
ROADMAP**

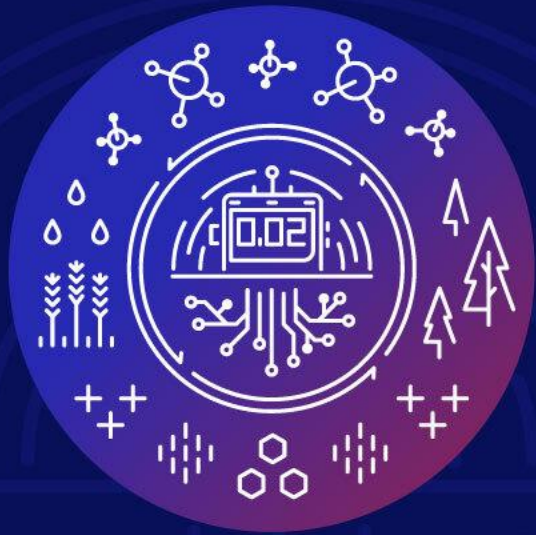
Alberta

Technology focus areas

- Carbon Management
- Improved Efficiency
- Emerging Energy
- Industrial Decarbonization
- Circular Economy

EMISSIONS
REDUCTION
ALBERTA

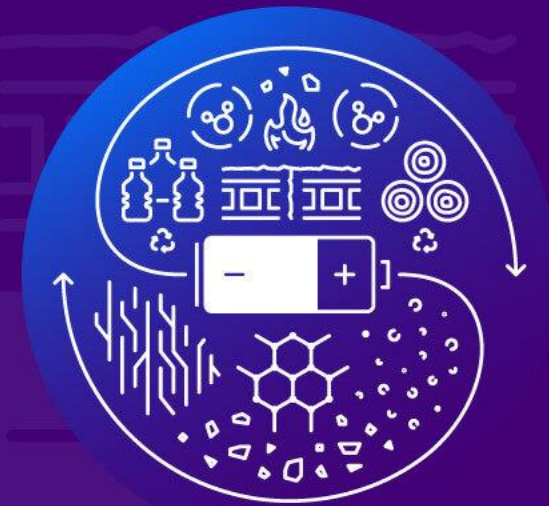
Alberta



EMERGING INNOVATORS CHALLENGE



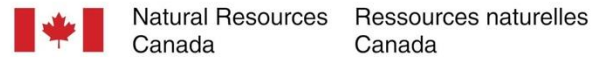
INDUSTRIAL TRANSFORMATION CHALLENGE



ADVANCED MATERIALS CHALLENGE

Trusted Partners

Alberta





ADVANCED MATERIALS CHALLENGE



Background

- Alberta is a major producer of natural resources, material goods, and manufactured products
- Subsectors include: cement, plastics, metals, forest products, chemicals, etc.
- Common needs across materials sectors:
 - reduce embodied carbon
 - enhance material properties with additives and/or new formulations
 - improve circularity
- Alberta Innovates has led the way on many new materials like high value carbon
- ERA funding can accelerate commercialization and scale up of nascent technologies

Funding overview

- Up to \$40 million available
- Maximum \$5 million per project
- Minimum of \$250,000
- Funding must be matched at least 1:1
- Leverage with funding partners where possible

See ***Eligible Expense and Cost Instructions*** for details regarding eligibility of costs

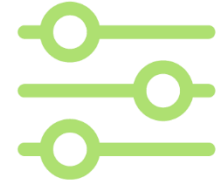
Eligible applicants



**LARGE INDUSTRIAL
EMITTERS**



**POST SECONDARY
INSTITUTIONS**



**RESEARCH
ORGANIZATIONS**



**SMALL AND MEDIUM
ENTERPRISES**



MUNICIPALITIES



Technology examples

- Novel carbon materials
- Production of non-combustion products from bitumen or other hydrocarbons
- Circular plastics and other low-emissions plastics technologies
- Novel materials with applications in carbon capture and sequestration
- Novel production and/application of biochar and other carbon-absorbing minerals

Technology examples, cont'd

- Production and processing of critical minerals
- Material performance enhancements and/or embodied carbon reduction
- Novel materials solutions for emissions reduction in industry
- Waste-to-value and recycling solutions for waste streams (municipal, food, agricultural, industrial, wastewater, etc.)
- Energy supply chain
- Biomaterials and bioproducts

Out of scope technologies

- Business as usual recycling or waste management processes
- Production of plastic feedstocks without an end-user
- Biochar production without an end-user
- Projects whose primary focus is production of biofuels or other fuels
- Standalone pre-construction studies



Technology stage of development

- Prototype
- Field Test / Pilot
- Commercial Demonstration
- First-of-Kind Commercial Implementation

Project structure, term, initiation

- ERA funds “Projects” with clear objectives, milestones, timelines, deliverables and a budget
- Maximum length is three years, plus one year of operational time
- Technologies must be demonstrated or deployed in Alberta

1 EXPRESSION OF INTEREST (EOI) STAGE



2 FULL PROJECT PROPOSAL (FPP) STAGE



3 PROJECT EXECUTION STAGE



**Submission
and
evaluation
process**



Timelines

Action	By whom	Timing
Expression of Interest Submission Deadline	Applicants	January 22, 2025
Expression of Interest Shortlist Notification	ERA	March 2025
Full Project Proposal Submission Deadline	Applicants	April 2025
Full Project Proposal Oral Presentation	Applicants	May 2025
Funding Decision Notification	ERA	June 2025

Outcomes reporting and knowledge sharing



Preparing a successful submission

- Start now: <http://eralberta.ca/apply-for-funding/>
- Register on Grant Manager: <https://erims.outcome-plus.com/>
- Read the guidelines documents
 - Call for Expressions of Interest
 - Eligible Expense and Cost Instructions
- Review the evaluation criteria:
 - Innovation opportunity
 - Implementation Plan
 - GHG Benefits
 - Non-GHG Benefits
 - Market and Value Proposition

Additional tips

- Use clear language and address each point in template
- Provide complete responses
- Don't wait until the last day to submit
- Increase your visibility through our trusted partners
- Content reminders:
 - Our mandate centers around GHG reductions
 - Identify your project site
 - Emphasize broader benefits and line of sight to commercialization



Questions?

Wrap up and next steps

- Unanswered questions?
 1. Review the guidelines and supporting materials online, eralberta.ca
 2. Email remaining questions to applications@eralberta.ca
- Begin your submission today

Thank you!