



# INDUSTRIAL TRANSFORMATION 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 Neil at [nwedin@eralberta.ca](mailto:nwedin@eralberta.ca)
- Webinar is being recorded and will be posted on our website

# Agenda

- About Emissions Reduction Alberta (ERA)
- Industrial Transformation 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

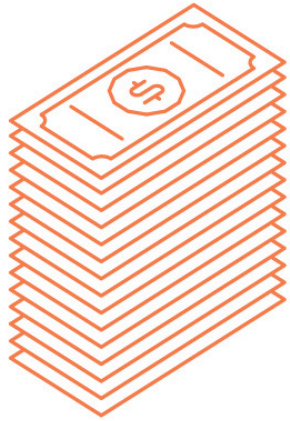


SUPPORTED BY:



# TECHNOLOGY INNOVATION

**\$935**  
**MILLION**  
TOTAL INVESTMENT



**277**  
**PROJECTS**

**42.5**  
MILLION TONNES  
OF CUMULATIVE  
EMISSIONS  
REDUCTION  
BY 2030

**117.6**  
MILLION TONNES  
OF CUMULATIVE  
EMISSIONS  
REDUCTION  
BY 2050

**\$8.8 BILLION** TOTAL PROJECT VALUE




**8.5:1**

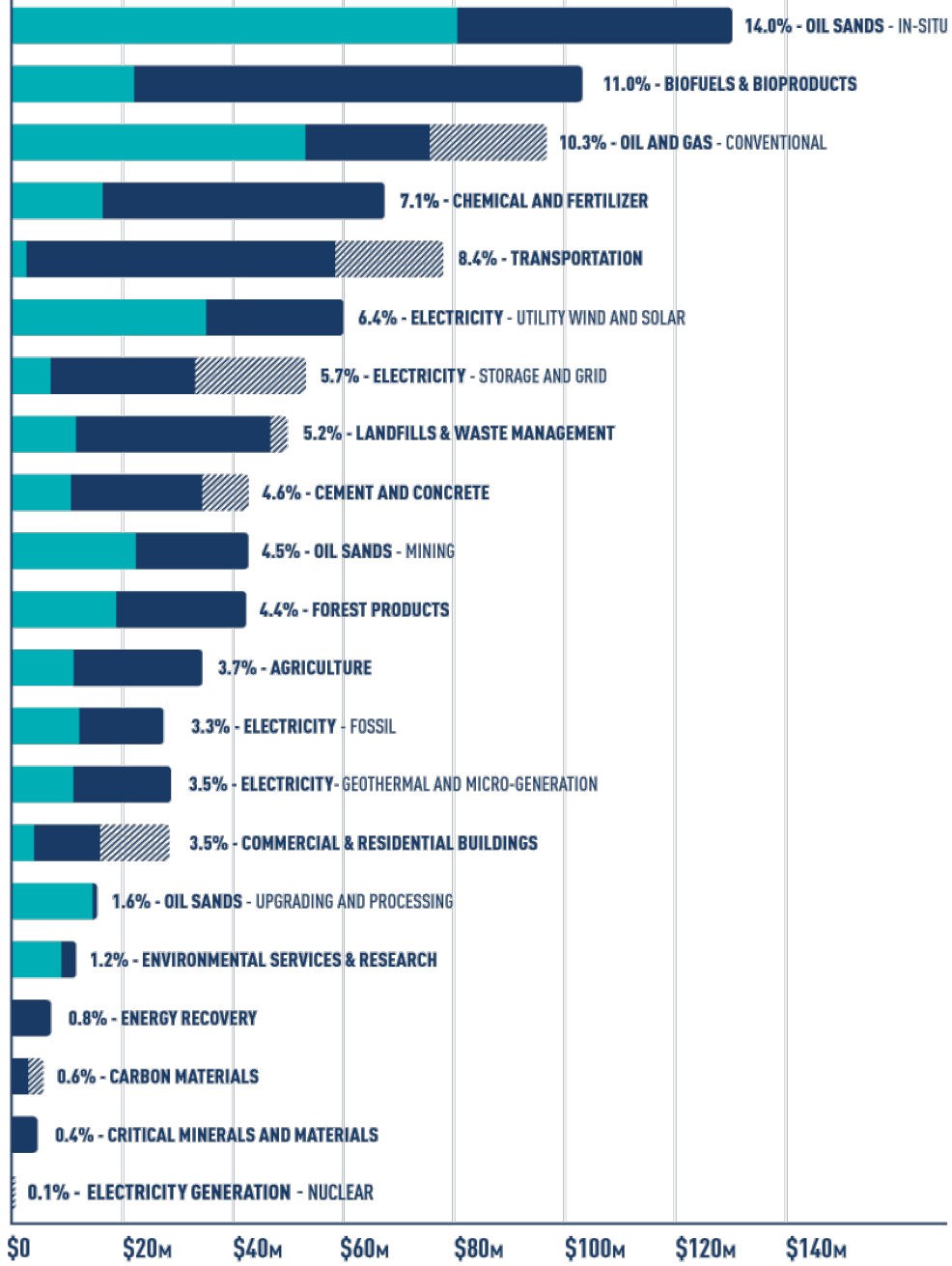
LEVERAGED  
FUNDING  
FROM PUBLIC  
AND PRIVATE  
INVESTORS

## ALL PROJECTS

**35,300** PERSON-YEAR  
JOBS IN ALBERTA  
 **BY 2027**

 **\$5.4 BILLION**  
GDP IMPACT  
TO ALBERTA  
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**

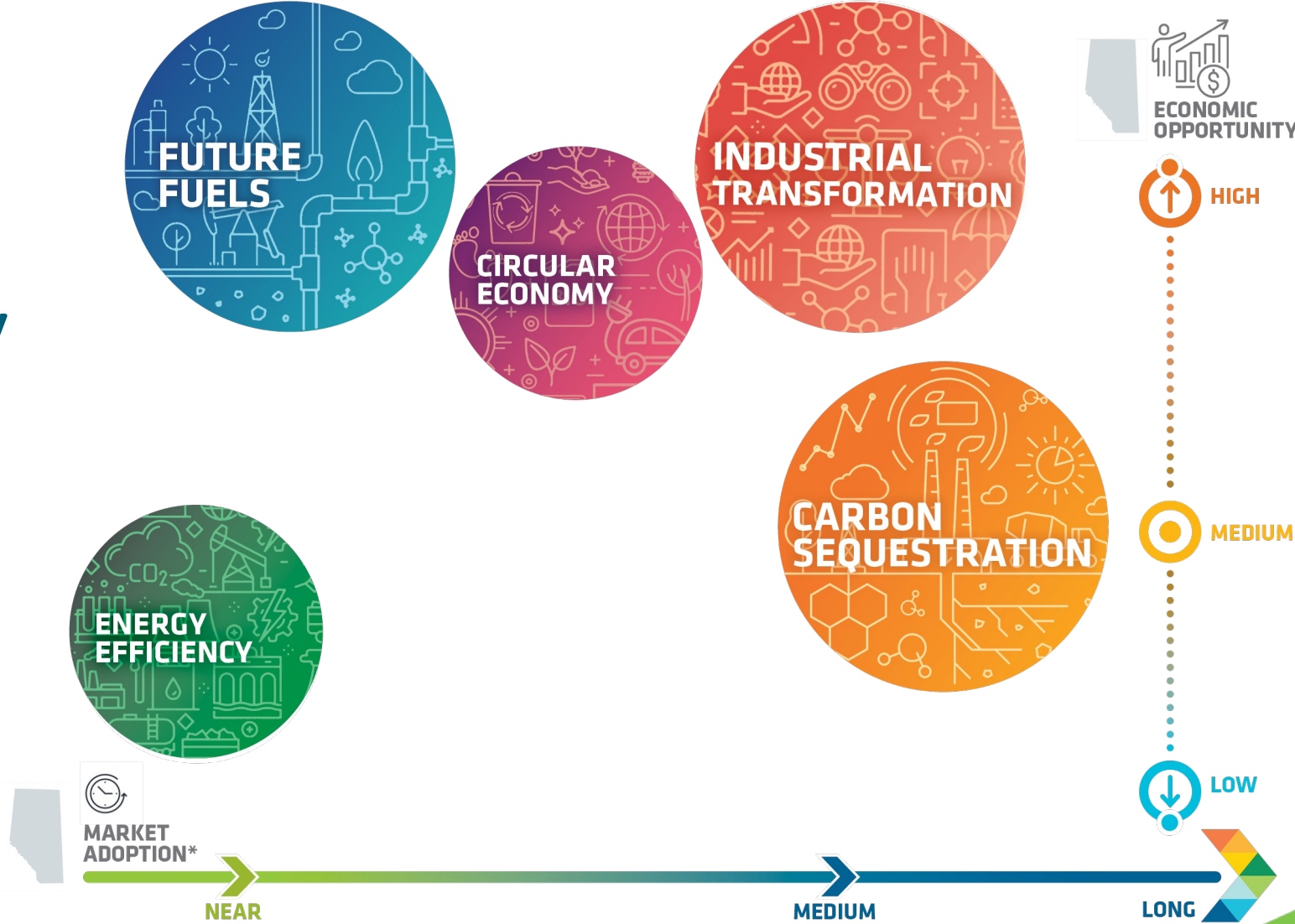
Projects have an executed contribution agreement. Funds have been committed.

**CONTRACTING**

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



# Technology Roadmap





# INDUSTRIAL TRANSFORMATION CHALLENGE

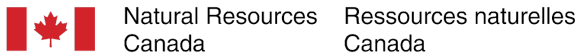


# ACCELERATING HYDROGEN CHALLENGE



# EMERGING INNOVATORS CHALLENGE

# TRUSTED PARTNERS





# INDUSTRIAL TRANSFORMATION CHALLENGE

# Call objectives

- ERA's Industrial Transformation TRM focus area
- Dual outcomes: GHG reductions, economic benefits
- Disruptive innovation for Alberta's industrial sector
- Support pathway to net zero
- Beyond first-mile solutions

# Project structure, term, and initiation

- ERA funds “Projects” with clear objectives, milestones, timelines, deliverables and a budget
- Maximum length is three years, plus one year of operational time where applicable
- Projects must commence within 120 days of approval\* (potential for delayed start date of up to 12 months)
- Technologies must be demonstrated or deployed in Alberta

# Funding overview

- Up to \$50 million available
- Maximum \$10 million per project\*
- Minimum of \$500,000
- 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

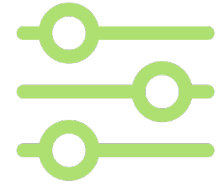
# Eligible applicants



**LARGE INDUSTRIAL  
EMITTERS**



**POST SECONDARY  
INSTITUTIONS**



**RESEARCH  
ORGANIZATIONS**



**SMALL AND MEDIUM  
ENTERPRISES**



**MUNICIPALITIES**



# Technology examples

- Onsite industrial clean heat production
- Electric boilers, industrial heat pumps, and other means of electrifying industrial heat
- Onsite thermal energy storage
- New processes, chemistries, etc. for cement, fertilizer, plastics, pulp and paper, oil and gas upgrading/refining, and other industries
- Novel oil and gas extraction
- Clean feedstocks for manufacturing and chemicals

# Technology examples

- Transformative agricultural technologies and practices including technology like sensors or robotics, advanced fertilizers, and novel harvesting techniques and fertilizers
- Novel approaches for reduction/elimination of methane emissions
- Major industrial facility upgrades
- New industries and products, such as:
  - Hydrocarbons beyond combustion
  - Energy materials (supply chains for batteries, electrolyzers, supercapacitors, etc.)
  - Critical minerals (lithium, vanadium, etc.)

# Technology stage of development

- **Field Test / Pilot:**
  - Technology or innovation is ready to be field-tested in an operational environment.
  - Scale-up of prototypes to representative pilot scale and subsequent in-field testing of pilot units.
- **Commercial Demonstration:**
  - Technology or innovation is approaching the final commercial product and representative systems have been built.
  - Demonstration of near- or fully-commercial scale systems in an operational environment.
- **First-of-Kind Commercial Implementation:**
  - Technology is ready for first-of-kind commercial deployment.
  - Design, construction, and operation of the technology in its final commercial form, with the intent to operate the technology for its full commercial life.

# 1 EXPRESSION OF INTEREST (EOI) STAGE



# 2 FULL PROJECT PROPOSAL (FPP) STAGE



# 3 PROJECT EXECUTION STAGE



Submission  
and  
evaluation  
process

# Timelines

<b>Action</b>	<b>By whom</b>	<b>Timing</b>
Expression of Interest Submission Deadline	Applicants	June 21, 2024
Expression of Interest Shortlist Notification	ERA	Mid-August 2024
Full Project Proposal Submission Deadline	Applicants	October 2024
Full Project Proposal Oral Presentation	Applicants	Late November 2024
Funding Decision Notification	ERA	December 2024

# Outcomes reporting and knowledge sharing





# ghgt-17

**OCTOBER 20-24, 2024**  
Calgary TELUS Convention Centre, AB, Canada



**HOSTED BY:**



# Preparing a successful submission

- Start now: <http://eralberta.ca/apply-for-funding/>
- Register on ERIMS: <https://erims.outcome-plus.com/>
- Read the guidelines documents
  - Call for Expressions of Interest
  - Eligible Expense and Cost Instructions
- Review the evaluation criteria:
  - Technology opportunity
  - GHG and cost benefits
  - Adoption potential
  - Project implementation plan



# Preparing a successful submission

- 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
  - Broader benefits

Questions?

# Wrap up and next steps

- Unanswered questions?
  1. Review the guidelines and supporting materials online, [eralberta.ca](http://eralberta.ca)
  2. Email remaining questions to [applications@eralberta.ca](mailto:applications@eralberta.ca)
- Begin your submission today

Thank you!