



DRILLING TECHNOLOGY CHALLENGE

We will begin the webinar shortly

October 22, 2025 2:00 P.M.

EMISSIONS
REDUCTION
ALBERTA



Alberta
Government

Speaker introductions



Justin Riemer
Chief Executive Officer



Christophe Owtttrim
Executive Director,
Technology and Innovation



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Lead,
Technology Investment

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
- Webinar is being recorded and will be posted on our website

Agenda

- About Emissions Reduction Alberta (ERA)
- Drilling Technology Challenge Overview
- Program objectives
- Scope and eligibility
- Submissions and evaluation process
- Timelines
- Advice for preparing a successful submission
- Q&A

ERA-AT-A-GLANCE

VISION

Alberta has a diversified economy with competitive industries that deliver sustainable environmental outcomes and attract investment

OPERATING MODEL

Provide grants to novel, first in kind technology demonstrations & energy efficiency incentives for Alberta's businesses

MISSION

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

We support a host of technologies to achieve broad environmental and competitiveness improvements:

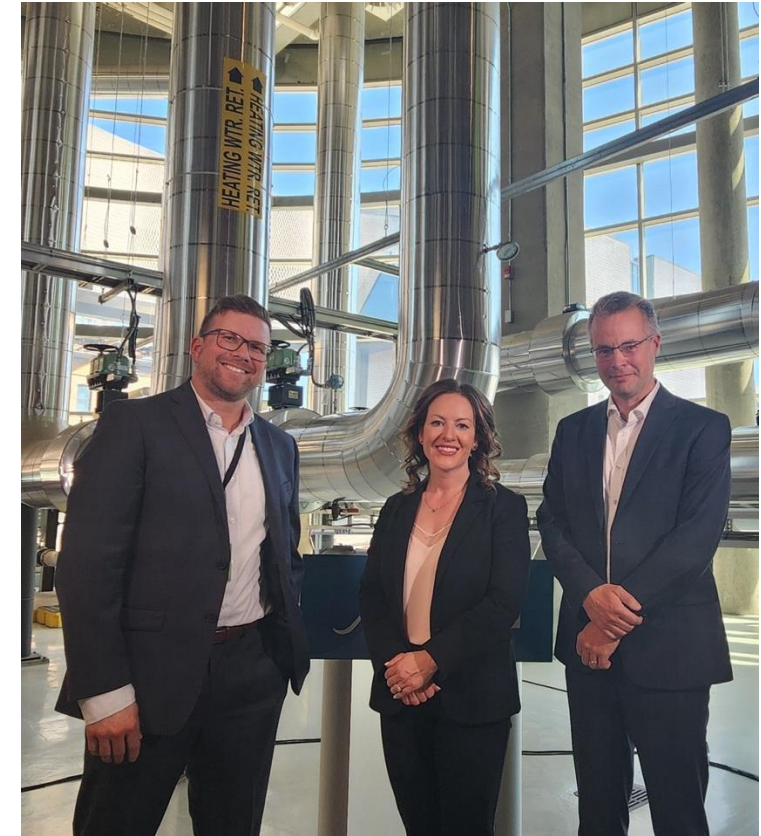
- Decarbonization
- Energy efficiency
- Recycling
- Water treatment
- Soil remediation



Lean, low-cost administration – providing good value for Albertans

Supported by the Government of Alberta

- ERA receives its funding from the Government of Alberta through the Technology Innovation Emissions Reduction (TIER) Fund.
- ERA's Board and Management prioritize alignment with the Government of Alberta and ensure strong ties and collaboration at all levels.



TECHNOLOGY INNOVATION

\$993M

TOTAL INVESTMENT



320

PROJECTS

28.8
MILLION TONNES

OF CUMULATIVE
EMISSIONS
REDUCTION BY 2030

82.2
MILLION TONNES

OF CUMULATIVE
EMISSIONS
REDUCTION BY 2050

\$10.3 BILLION

TOTAL
PROJECT
VALUE



5.8:1



LEVERAGED
FUNDING
FROM PUBLIC
AND PRIVATE
INVESTORS

ACCELERATING UPTAKE OF COMMERCIAL-READY TECHNOLOGIES THROUGH THE ENERGY EFFICIENCY PROGRAMS

\$57M
INVESTED



2155

PROJECTS SUPPORTED
THROUGH THE ENERGY
SAVINGS FOR
BUSINESS PORTFOLIO

4.48 MT

↓ ↓ ↓ ↓ ↓
OF LIFETIME
EMISSIONS
REDUCED

ALL PROJECTS



51,009

PERSON-YEAR
JOBS IN ALBERTA
BY 2027

\$8.19 BILLION

GDP IMPACT **TO ALBERTA**
BY 2027



69,935

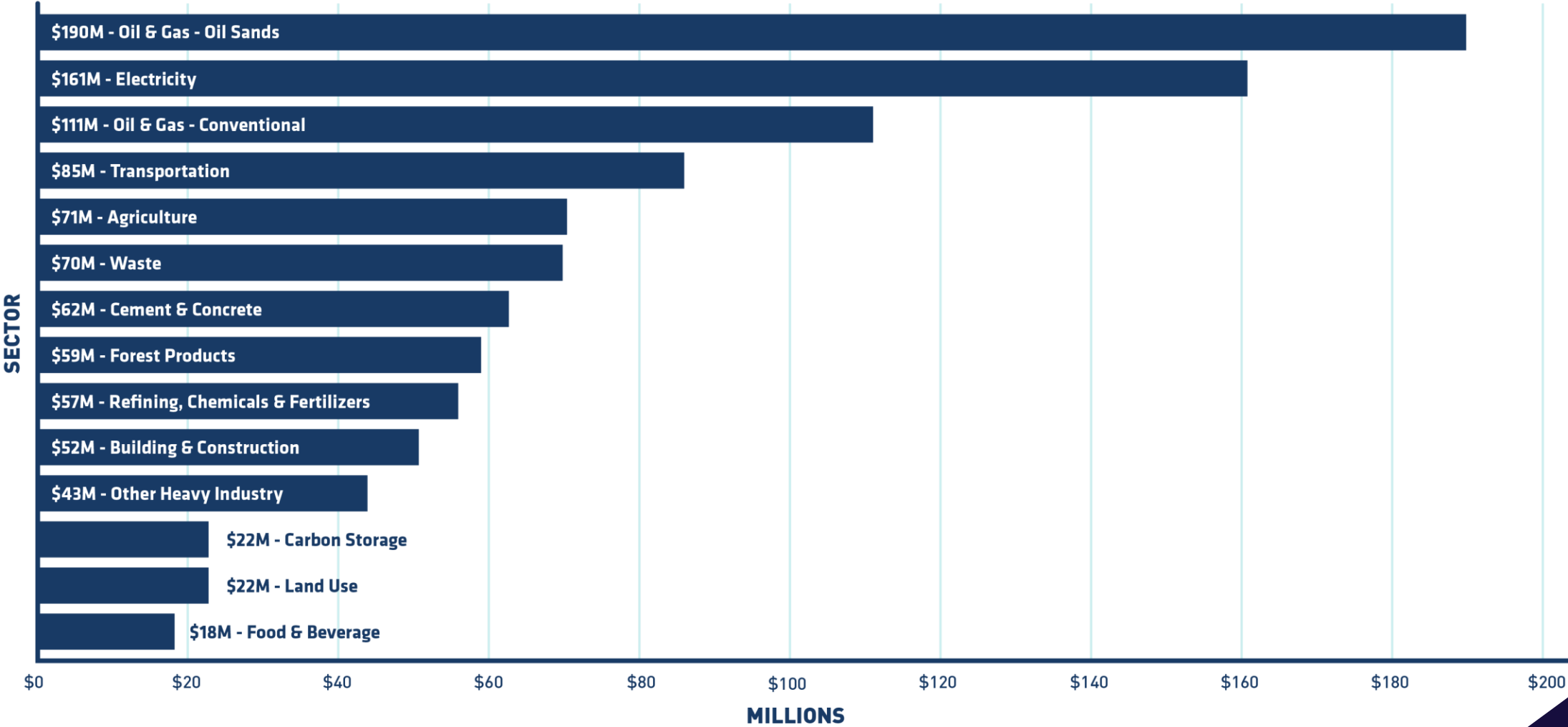
PERSON-YEAR
JOBS IN CANADA
BY 2027

\$10.99 BILLION

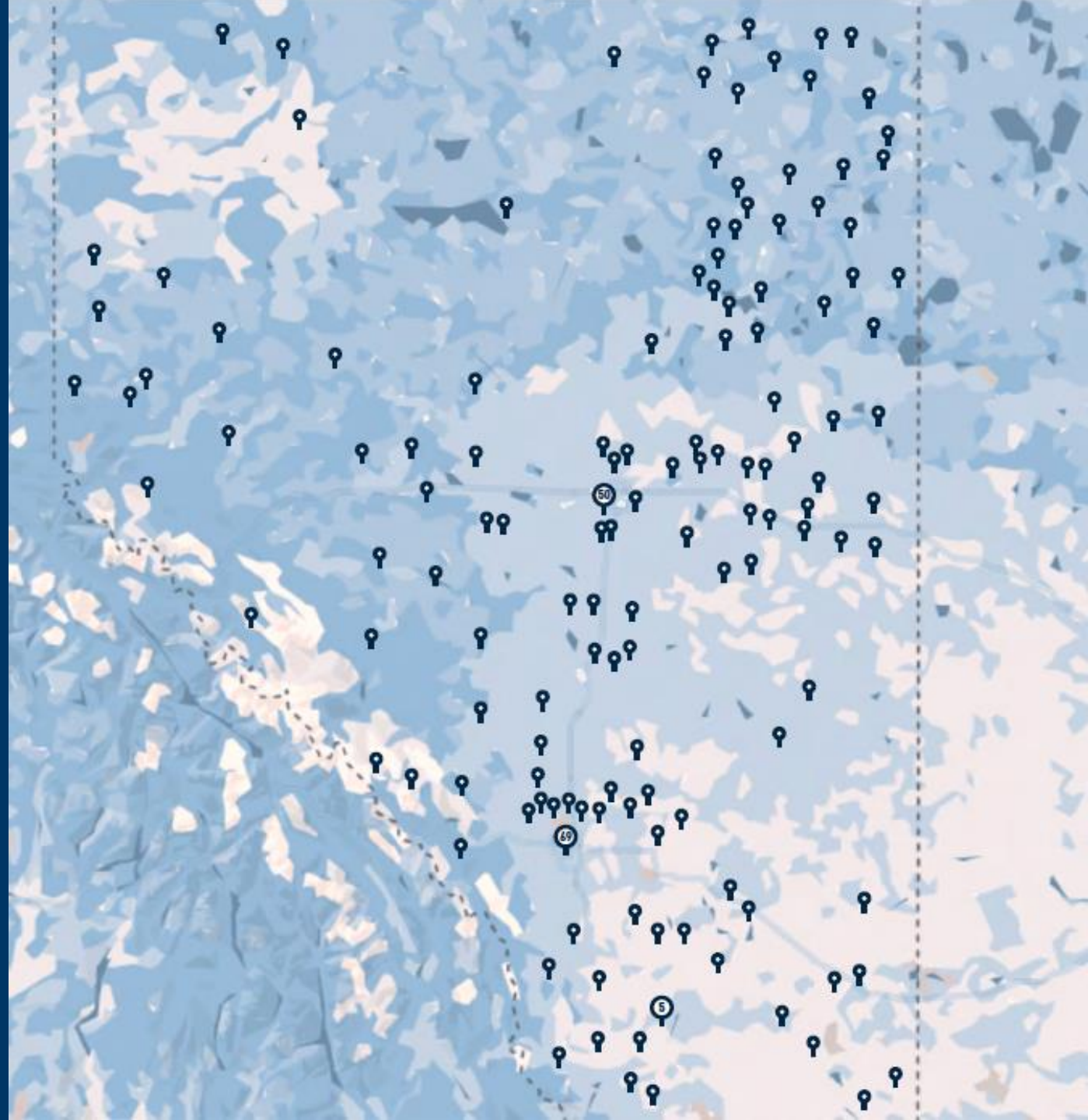
GDP IMPACT **TO CANADA**
BY 2027



FUNDING BY SECTOR



MAP OF ERA FUNDED PROJECTS



Technology Focus Areas

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

**FIFTH
EDITION**
PUBLISHED
OCTOBER 2024

EMISSIONS
REDUCTION
ALBERTA



**TECHNOLOGY
ROADMAP**

Alberta



RESHAPING ENERGY SYSTEMS



INDUSTRIAL TRANSFORMATION CHALLENGE



ACCELERATING HYDROGEN CHALLENGE



DRILLING TECHNOLOGY CHALLENGE

Up to **\$35 million** to build on more
than a century of expertise

EMISSIONS
REDUCTION
ALBERTA



Alberta
Government

Why?

- Alberta's century of drilling innovation makes it the leader in the next wave of safe, low-cost, low-emission subsurface technologies.
- Alberta-led advancements in geothermal, lithium, and other areas continue to strengthen its reputation as a powerhouse in energy innovation.
- Moving innovation from the drawing board to deployment will help de-risk ideas and deliver real results.



Funding available

- Up to \$35 million in potential funding
- Maximum \$8 million ERA contribution per project
- Minimum funding contribution of \$250,000
- Funding must be matched at least 1:1

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



Technology Examples

- Advanced Drilling Methods
- Downhole Tooling and Sensors
- Automation and Digital Optimization
- Energy-Efficient and Low-Impact Systems
- Geothermal and Critical Mineral-Specific Innovations
- Enabling Infrastructure and Support Systems



Out-of-scope technologies and projects

- Business-as-usual technologies or solutions
- Incremental efficiency improvements that do not go beyond legislated requirements
- Scopes that represent only a portion of a complete project, such as:
 - Standalone infrastructure, facilities, or building envelopes
 - Standalone pre-construction studies (FEED, feasibility, etc.)
- Geological assessments (except in the context of downhole tooling)
 - Conventional exploration wells for resource characterization

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

- **Demonstration:**

- Technology is approaching final commercial product and representative systems have been built
- Demonstration of near- or fully-commercial scale systems in an operational environment

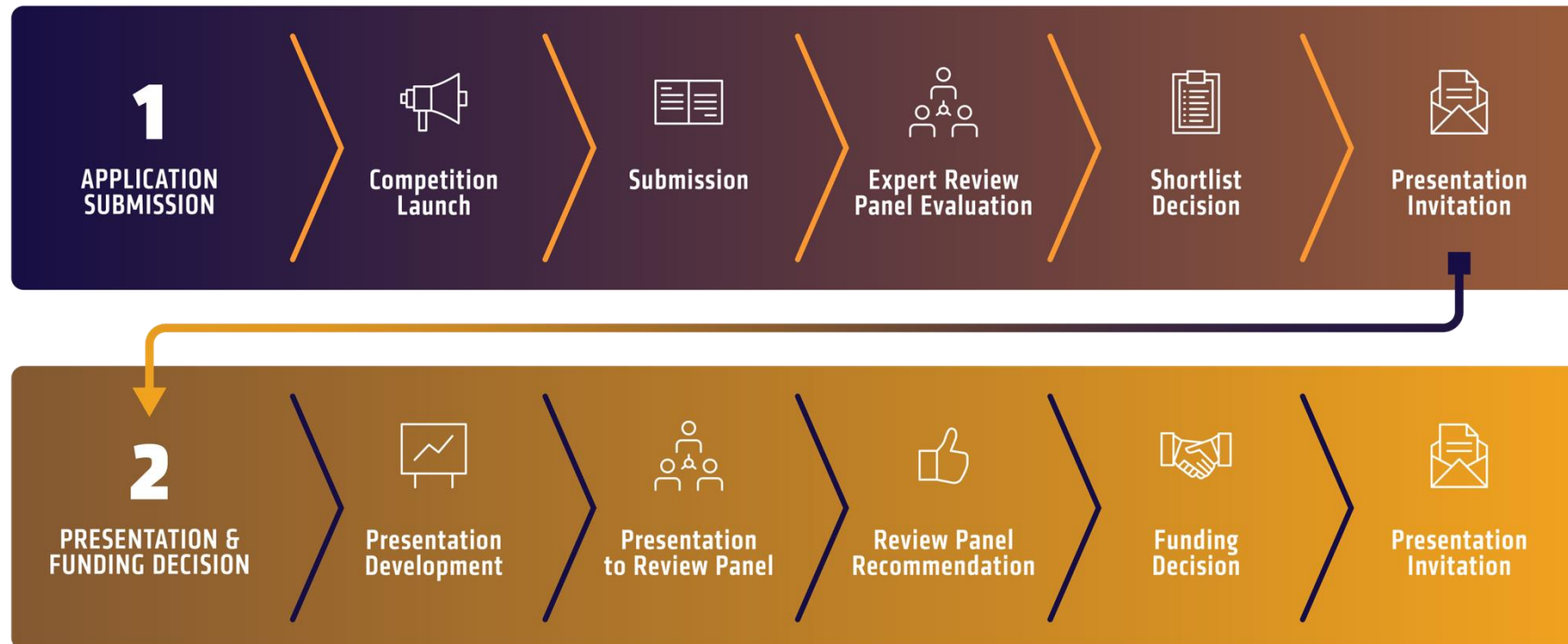
- **First-of-kind implementation:**

- 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

Project structure

- Projects must commence within 120 days of approval, currently planned for June 2026.
- Applicants may request a delayed start date of up to 12 months.
- Maximum project length is three years, plus up to three years additional time for operation and data collection, where applicable.

Submission and evaluation process



Timelines

Action	By whom	Timing
Application Submission Deadline	Applicants	January 29, 2026
Shortlist Notification	ERA	March 2026
Presentations	Applicants	April 2026
Funding Decision Notification	ERA	June 2026

Outcomes reporting and knowledge sharing

- Funding recipients must submit a project completion report, outlining outcomes, achievements, and lessons learned:
 - GHG reductions (actual and projected)
 - job creation
 - environmental benefits
 - economic benefits
- Participants may be required to commit to:
 - writing reports
 - hosting knowledge-sharing workshops
 - participating in lessons-learned or other knowledge-sharing initiatives
- ERA anticipates that all funded projects will participate in meaningful engagement and information sharing with regulators, First Nations communities, and other relevant stakeholders

Preparing an application

- 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:
 - Technology Advancement
 - Implementation & Readiness
 - Environmental Performance
 - Economic & Ancillary Benefits
 - Stakeholder Engagement
 - Commercialization & Market Fit



Questions?



Wrap up and next steps

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



A photograph of an industrial facility, possibly a water treatment plant, with large white structures and metal frameworks. Two workers in safety vests and hard hats are walking in the foreground. The CAR logo is visible on a building in the background.

THANK YOU