



TAILINGS TECHNOLOGY CHALLENGE

Up to **\$50M** to support new
technologies for oil sands
mine water and tailings.

Online Submission:

<https://grant-manager.com/erims>

Deadline:

Wednesday September 24, 2025,
5:00 PM MDT (UTC-6h)

CALL FOR PROPOSALS
GUIDELINES



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Legal Notice

Emissions Reduction Alberta is a registered tradename of the Climate Change and Emissions Management (CCEMC) Corporation and is referred to as ERA throughout this document. By submitting Proposal Submission (“Submission”), you confirm that you have read, understand and accept the information contained in this Call for Expressions of Interest and, that each of you, the applicant (the “Proponent”), and any project partners agree as follows:

- a) ERA may at any time suspend, terminate, cancel, withdraw, amend or alter all or any portion of this request for proposals (“RFP”) Submission stage (“Submission Stage”), including but not limited to the Submission requirements, the Submission selection and review process and the Submission eligibility criteria.
- b) ERA reserves the unqualified right to accept or reject any or all Submissions for any reason. ERA is not required to accept the highest ranked Submission nor is it required to accept any Submission recommended for advancement to the presentation stage (“Presentation Stage”) by the applicable ERA evaluators.
- c) Submissions that do not comply with the requirements described in this RFP may be rejected in whole or in part or not considered by ERA. ERA reserves the unqualified right to accept or reject a non-compliant Submission.
- d) This Submission Stage is an invitation for Submissions only. It is not an offer and the submission of an Submission does not create a contract or agreement of any kind between ERA and the Proponent.
- e) No conduct, act or omission of CCEMC, CCEMC operating as ERA, or its directors, officers, consultants, project advisors, agents, servants and their respective successors and assigns (collectively the “ERA Parties”), other than a written notice to the Proponent in writing signed by an authorized person for ERA, will constitute an acceptance of an Submission.
- f) Acceptance of an Submission does not create any binding contract between ERA and the Proponent. ERA shall not be obligated in any matter whatsoever to any Proponent until a written contribution agreement (“Contribution Agreement”) between CCEMC operating as ERA and the Proponent has been duly executed relating to an approved project.
- g) As between the parties, the Submission and all documents and materials you submit to ERA in connection with the Submission Stage and all intellectual property in and to the foregoing are the exclusive property of ERA immediately upon delivery to ERA. For clarity, this refers to the materials themselves, not to any technology or innovations disclosed or discussed in them. Intellectual property developed during the course of the project will be addressed through the Contribution Agreement and will normally be owned by the Proponent.
- h) You, the Proponent and any project partners will keep this Submission Stage confidential and will not use, reproduce or distribute it, any portion of it, or any data, information, drawings, or specifications included in or provided with it except as necessary to prepare subsequent deliverables as requested by ERA.

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- i) Neither ERA nor any of ERA Parties will have any liability whatsoever to you, the Proponent or any project partners, or any of them, in connection with this Submission Stage or any Submission prepared in response to it.
 - j) You, the Proponent and any project partners will not make a claim against CCEMC, CCEMC operating as ERA, or ERA Parties for any reason whatsoever or howsoever relating to this Submission Stage. You are undertaking the expenditures required to prepare and submit a Submission entirely at your own risk, and you waive any right and release ERA and ERA Parties from any demands, liability, claim or recovery for costs, expenses, or damages incurred whatsoever or howsoever arising out of or relating to this Submission Stage or any Submission prepared in response to it, whether such right or claim arises in contract, negligence or otherwise.
 - k) ERA takes no responsibility for the accuracy of the information supplied during this Submission Stage process by ERA or ERA Parties.

1 Introduction

1.1 ERA

Emissions Reduction Alberta (“ERA”) is a registered tradename of the Climate Change and Emissions Management (CCEMC) Corporation. For 15 years, ERA has responsibly invested revenues from Alberta’s Technology and Innovation for Emissions Reduction (TIER) fund – the carbon price paid by large industrial emitters in Alberta – to accelerate the development and adoption of innovative clean technology solutions. Since inception in 2009, ERA has committed \$970 million to 306 projects worth \$7.32 billion that are helping reduce greenhouse gas (GHG) emissions, create competitive industries, and lead to new business opportunities in Alberta. These projects are estimated to deliver cumulative GHG reductions of more than 34 million tonnes CO₂e by 2030 and nearly 95 million tonnes CO₂e by 2050.

1.2 Document Scope

This Call for Proposals (“Call”) is inviting project proposals to be considered for ERA funding in a competitive process. Proposals will be accepted and evaluated in a 1.5 stage process: a single proposal submission, followed by an invitation to a presentation for shortlisted applicants. Applicants that are successful in both stages will proceed to Contribution Agreement development and project execution. These instructions provide information about the proposal stage only. Information specific to the presentation stage will be available when presentation invitations are made.

A description of ERA’s overall funding process can be found on the ERA website at <https://eralberta.ca/apply-for-funding/>.

Note: Applicants who have questions about the submission and evaluation process or who wish to discuss their potential submission with ERA are invited to email applications@eralberta.ca. Inquiries will be directed to appropriate personnel within ERA.

2 Call for Proposals Scope

2.1 Background and Context

Alberta’s oil sands mining operations produce several high-volume waste streams as part of normal operation, including tailings and oil sands mine water (OSMW). Alberta’s oil sands tailings and mine water factsheet¹ describes tailings as “a mixture of water, sand, clay, unrecovered bitumen, and solvent, including some organic and inorganic compounds.” Similarly, OSMW is defined as all water

¹ <https://www.alberta.ca/system/files/epa-oil-sands-tailings-and-mine-water-factsheet-20240412.pdf>

on site, including water used or produced during oil sands processes (including process water, water extracted from tailings, basal mine water, etc.). Some OSMW, also known as oil sands process water (OSPW), may contain various contaminants including residual bitumen, chemicals, heavy metals, salts, organic compounds, and other impurities that preclude reuse or release of this water.

Tailings and OSPW are currently stored in tailings ponds consisting of engineered structures and depleted mine pits. As of 2024, the total tailings inventory exceeded 1.4 billion cubic meters². These tailings ponds represent environmental, regulatory, and reputational challenges for operators, and are also a concern for local Indigenous communities who have an interest in protecting the land and water in their territories and a right to be informed and engaged on potential impacts.

Oil sands companies are obligated to return all mine sites to self-sustaining, locally common boreal forest after end of mine life³. In addition to challenging timelines for reclamation, un-remediated tailings ponds are a source of liability for operators. It is also important to note that current volumes of stored tailings and water as well as future activities to reduce volumes and reclaim sites can have impacts on local communities including Indigenous peoples. As such, improved solutions for tailings and OSMW treatment, volume reduction, and management could offer the following benefits:

- Reduced costs for tailings management and full remediation, resulting in improved cost competitiveness and reduced financial liabilities for oil sands operators;
- Reduction in stored tailings volumes and shortened timelines for site reclamation;
- Increased rates of water recycling and reuse on-site, reduced freshwater use, and/or increased volumes of clean water for potential return to downstream ecosystems and communities;
- Reduction in air emissions currently released from tailings ponds including methane and volatile organic compounds; and
- Reduced risk of wildlife exposure or impacts to water and land from loss of containment.

With end of mine life approaching for some operations, solutions for treating OSMW not currently permitted for discharge are of critical importance to reclamation and closure. Due to the high volume of water that will require different forms of treatment, utilizing low energy methods will be an important factor. There remains a significant need to continue investing in innovative technologies to economically reduce the volume of tailings and OSMW and facilitate an accelerated remediation and reclamation of tailings ponds.

² Alberta Energy Regulator. (2024). State of Fluid Tailings Management for Mineable Oil Sands Report, 2023 IN Industry Performance. Retrieved June 03, 2025 from <https://www.aer.ca/data-and-performance-reports/industry-performance#tailings>

³ Government of Alberta. (Aug 2024). Oil sands tailings and mine water management. Retrieved June 03, 2025, from [Oil sands tailings and mine water](#)

Via this call, ERA hopes to support the following outcomes:

- **De-risking, Advancement, and Deployment of Scalable and Cost-Effective Solutions:** Support for technologies to reduce tailings volumes, treat OSMW, and enable large-scale implementation with lower costs. Funding will de-risk technology validation at meaningful scale, enabling field testing and demonstration in real-world conditions.
- **Improved Environmental and Reclamation Outcomes:** Reduction in GHG emissions, energy inputs, land disturbance, wildlife impacts, and containment failure risk, while accelerating site readiness for mine closure and reclamation.
- **Water Use Optimization:** Reduce net water impacts, support a pathway to safe water discharge or reuse, and reduce reliance on freshwater resources.
- **Lower Operating Costs and Reduced Liabilities:** Reduce long-term environmental liabilities and improve cost efficiency for oil sands operators to meet reclamation obligations, especially as sites approach closure.
- **Enhanced Industry Collaboration:** Strengthen partnerships to facilitate site access, share best practices, and collaborate on multi-party initiatives.
- **Meaningful Stakeholder Consultation and Engagement:** Leveraging projects in this area to drive knowledge sharing and impactful conversations around responsible development, environmental performance, community impacts, and site reclamation.

This Call for Proposals is dedicated to advancing the most promising technologies and solutions to support tailings and OSMW management and treatment in Alberta's oil sands industry. This Call complements the [recommendations](#) from the Government of Alberta's Oil Sands Water Steering Committee ("Committee") and ERA's 2025-28 [Business Plan](#).

ERA and this Call are funded by the Government of Alberta's Technology Innovation and Emissions Reduction (TIER) Fund.

2.2 Call Focus and Technology Areas

ERA's Tailings Technology Challenge will invest in scale-up, pilot, demonstration, and first-of-kind commercial technologies and solutions related to the **reduction and management of tailings and mine water** in Alberta. The Call aims to unlock critical solutions (which may be technologies, practices, or combinations thereof) to manage and remediate tailings and mine water. The program will support both entirely novel technologies as well as solutions that improve current processes or enable the reduction or avoidance of tailings and tailings water treatment.

Example Technology Areas

This Call for Proposals is not technology prescriptive. The following list provides a non-exhaustive set of examples of solutions that ERA believes may align well with this Call's targeted outcomes:

- Tailings dewatering and volume reduction
 - Novel centrifuge and filtration systems
 - Advanced evaporation techniques
 - Low-energy or passive tailings treatment
 - Extraction of additional bitumen and/or value-added materials from tailings streams

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- Management and conversion of air pollutant releases (including GHGs) from tailings ponds
 - Upstream technology solutions that reduce the volume of tailings production from oil sands mining activities, e.g. solutions that produce dry stackable tailings or that have a reduced water footprint
 - Water treatment, optimization, and volume reduction
 - Novel filtration/separation/membrane technologies
 - Advanced oxidation and electrochemical treatment
 - Solutions that enable water recovery or re-use in oil sands processes, including treatment to enable water sharing between sites
 - Wetlands and other nature-based-solutions for passive treatment
 - Novel treatment and permanent disposal solutions for water treatment byproducts and non-releasable waste streams
 - Bioaugmentation and similar approaches to treat contaminants such as naphthenic acids
 - Tailings and OSMW remediation and reclamation
 - Phytoremediation, mycoremediation, and similar
 - Advanced techniques for tailings and land remediation
 - Nature based solutions for remediation and accelerated re-naturalization
 - Enabling solutions for tailings and water management
 - High volume continuous monitoring of water quality
 - Novel approaches to quantify and monitor naphthenic acid content
 - Biomarkers and other approaches to track, measure, and optimize reclamation progress
 - Shared infrastructure for testing of tailings and/or water management technologies

This Call is seeking transformative opportunities to materially manage and remediate tailings and mine water in Alberta. All proposed solutions must focus on tailings and/or water management and must demonstrate a clear line of sight towards realized benefits through the project.

In the spirit of complete solutions, proponents may elect to submit a single proposal featuring multiple individual technologies that all contribute to targeted outcomes for tailings and water.

Out-of-Scope Technologies and Projects

Examples of opportunities that are out of scope for this Call include:

- Business as usual technologies or solutions
- Technologies primarily related to bitumen extraction (such as novel exploration techniques, new approaches to mining, solvent-based in-situ extraction, and similar)
- Standalone pre-construction studies such as feasibility, front-end engineering, or opportunity assessments without testing or deployment of technology
- Conventional tailings and water infrastructure (e.g. dykes, ponds, pipelines, etc.) except where directly in support of eligible projects

Alignment with other ERA Funding Opportunities

ERA's [Technology Roadmap](#) (Fifth Edition) and 2025-28 [Business Plan](#) identify several interrelated focus areas for upcoming funding opportunities that complement this Call for Proposals. These technology areas are summarized below

Program	Technology Focus	Timelines
Advanced Materials Challenge	Technologies and solutions related to the design, production, manufacturing, and lifecycle of new and existing materials and products.	Intake closed
Industrial Transformation Challenge (2025)	Technologies and solutions to reduce emissions and deliver broad environmental benefits for Alberta's natural resource and industrial sectors.	Intake closed
Tailings Technology Challenge (this call)	Technologies and solutions for reducing and managing tailings and treatment of oil sands mine water	Launch in Summer 2025
Drilling Accelerator Challenge	Innovative next-generation drilling technologies to support geothermal, oil and gas, critical mineral extraction, and other industries.	Launch in Fall 2025 (TBC)
Industrial Transformation Challenge 2026	Technologies and solutions to reduce emissions and deliver broad environmental benefits for Alberta's natural resource and industrial sectors.	Launch in Spring 2026 (Tentative)

ERA encourages applicants to contact applications@eralberta.ca to discuss the alignment of their project with the specific aims of this program. Applicants who are not a fit for this Call are encouraged to consider other ERA funding streams. ERA reserves the right to alter the timing or focus of its current and future Calls and other programs at its sole discretion.

2.3 Project Structure

Funding made available through this Call is provided for completion of projects with well-defined objectives, milestones, deliverables, and timelines. Applicants must clearly delineate the scope of the project for which ERA funding is being requested and the benefits associated with that scope of work. Any related work completed concurrently or before the project term but outside the scope of the project may be discussed in the proposal but should be clearly indicated as such.

All projects must include field testing, piloting, demonstration, or first-of-kind implementation of novel technology (e.g., devices, equipment, systems, processes, or practices) and must incorporate sufficient operational time to generate performance data and lessons learned.

The following project types are eligible for support:

- Pilots and pre-commercial demonstrations to advance and validate one or more related technologies via onsite piloting or offsite testing with material samples (this may include projects featuring ‘bundles’ of technologies)
- Large scale implementation and deployments of capital technologies at commercial scale
- Test centres and other shared infrastructure that enable testing and validation activities for multiple participants

Projects may include late-stage pre-construction work as the initial stage of a technology demonstration/implementation, as long as the project is at an advanced state of readiness and can be completed within the project term described below.

Projects or portions thereof that have previously received ERA funding are not eligible to receive further ERA funding for the same development. However, applicants may request support for a new phase of development that builds on and sufficiently advances a previously funded project.

2.4 Stage of Development and Novelty

Proposals are invited for projects that will advance technology to the stages of field pilot, demonstration, or first-of-kind commercial implementation by project completion (e.g., TRL 7-9+ **by project completion**), as described below:

- **Field Test/Pilot:** At this stage, the solution is ready to be field tested in a simulated or real operational environment. Projects in this category include scale up of prototypes to representative pilot scale and subsequent in-field testing of pilot units.
- **Demonstration:** At this stage of development, the technology or innovation is approaching the final commercial product and representative systems have been built. Projects in this category include demonstration of near- or full-commercial-scale systems in an operational environment.
- **First-of-Kind Implementation:** At this stage, the technology is ready for first-of-kind commercial deployment. Projects in this category will involve design, construction, and operation of the technology in its final commercial form and at commercial scale, with the intent to operate the technology for its full commercial life.

For clarity, technologies may be at a TRL of less than 7 prior to the start of the proposed ERA-funded project. It is incumbent on all applicants to show how their project scope aligns with the above definitions and to justify the reasonableness of achieving the proposed project objectives based on the current TRL at the start of the project. Technologies or projects that fall below the TRL range for this Call may be eligible for other supports, however we encourage applicants to contact the Applications Team (applications@eralberta.ca) prior to submission to discuss this further.

This Call is only open to new developments that are additional to business-as-usual activities. For clarity, prior announcement or development of a project does not preclude it from receiving funding, but applicants must justify how ERA funding will lead to activities and developments that are additional to the business-as-usual case. Applicants must demonstrate how the proposed

technology or application thereof represents an advancement over current technology for tailings and water management in Alberta. This may include elements such as first-of-kind demonstration of novel technological solutions, innovative adaptation of solutions that have been implemented outside of Alberta or in a different industry, or novel configurations of leading commercial technology for a new operational environment.

In general, projects should include elements of technological advancement and de-risking rather than deployment of business-as-usual solutions. The presence of commercially available components in a project does not disqualify it from funding as long as the primary focus of the ERA-funded scope of work is advancing novel technologies or processes.

Note: It is incumbent upon applicants to justify how their project qualifies as a novel opportunity.

In the context of this Call, novelty can be demonstrated through elements such as:

- a) the additionality of the potential project outcomes relative to a reasonable future baseline condition;
- b) the extent to which the technology has been previously implemented/tested in Alberta and in a given sector;
- c) the incremental strategic value of the project relative to current/past investments in [ERA's portfolio](#); and
- d) the degree of technology risk associated with the proposed project.

As such, ERA funding will not be provided to address only a financial barrier or for projects whose focus is the implementation of business-as-usual technology.

2.5 Project Location

All projects supported through this Call must demonstrate a clear and justified value proposition for reduction and management of oil sands tailings and mine water in Alberta. Technology solutions can originate from anywhere globally, but must be demonstrated or implemented in Alberta during the project. Projects that involve demonstration or implementation of a technology at multiple Alberta sites are eligible for funding under this Call.

2.6 Eligible Applicants

This Call is open to oil sand operators with tailings ponds and/or tailings mine water under management, and technology providers with a **confirmed** oil sands operator as partner at time of application submission. Applicants are not required to be located in Alberta, but all applicants must demonstrate a clear value proposition for the province.

Collaboration between multiple organizations is eligible and encouraged for this opportunity. Collaboration between partners can often represent a strong value proposition by demonstrating opportunities for technology validation, commercialization, and sharing of results.

In particular, applicants are strongly encouraged to partner with Alberta’s post-secondary and research institutions, Indigenous communities, and municipalities where appropriate. These partnerships can offer significant benefits, including the attraction and training of highly skilled workers, increasing Alberta’s innovation capacity, engagement of local communities, and leveraging complementary resources. Proposals will be assessed on the extent and quality of engagement with local communities and on their potential to enhance research and oversight capacities in this area.

Note: There are no restrictions on the number of Submissions that can be submitted by any applicant. However, applicants are encouraged to be selective, bringing forward only the most promising and highest quality applications. ERA reserves the right to limit funding to any individual organization to ensure diversity of funding recipients, and may ask applicants to identify the highest priority projects for their organization. In this Call, ERA is unlikely to fund more than one proposal from any given organization.

2.7 Project Initiation and Term

Successful applicants will be required to commence work on the proposed project (engineering design, equipment procurement, construction, etc.) **within 120 days** of ERA funding approval, currently planned for January 2026. Applicants must clearly demonstrate in their proposal that the project is sufficiently advanced to initiate work within 120 days of funding approval. However, successful applicants may request a delayed start date of up to twelve (12) months after funding approval to allow for alignment with facility operations, scheduled facility turnarounds, and/or regulatory processes. Such requests will be at ERA’s sole discretion to accept or decline.

The maximum length for projects funded under this Call is **three (3) years** from initiation, plus up to **three (3) years** additional time for operation and data collection where applicable. For clarity, all construction and commissioning activities must be completed within a three-year period, and a minimum of one year of post-commissioning operational time must be incorporated in the project term where applicable to generate performance data and learnings for inclusion in final reporting and knowledge-sharing activities.

3 Terms of Funding

3.1 Total Funds Available

The total funding available for projects supported through this Call is up to **\$50 million** Canadian Dollars (\$CAD), subject to the discretion of ERA and the availability of funds.

3.2 Funding Per Project

The maximum ERA contribution that may be requested for any one project is **\$15 million CAD**, **larger contributions will be considered on a case-by-case basis for projects involving multiple operators and significant outcomes potential**. For clarity, there is no maximum total budget for projects in this Call.

Based on the scale of outcomes targeted and the amount of effort required to succeed in ERA's due diligence process, ERA anticipates that most projects funded in this Call will receive a minimum of \$1 million CAD in ERA funding. Applicants who require less than \$1 million are advised to seek support from other sources.

Note: Applicants must justify the amount of funding requested. ERA may choose at its sole discretion to award project funding for less than the requested amount.

3.3 Fund Matching

ERA requires its funding to be matched on a minimum 1:1 basis with funding from the applicant and/or project partners toward eligible expenses. In other words, for every dollar that ERA provides to a project, there must be at least one dollar from the applicant and/or partners. As such, the maximum ERA contribution to a single project will be no more than 50% of the project's eligible expenses. Eligible private matching funds include:

- **Cash Funding Contributions:** these include cash funding provided by either the recipient, a project partner, or grant funder used to pay for project expenses. If the recipient or partner is obtaining a loan or equity raise to finance the project, it should be the name of the recipient or partners listed as the funder.
- **In-kind Contributions:** these include non-monetary resources that partners, or sponsoring organizations provide to support the project. Non-monetary means that there is no cash payment provided to the project. Examples may include the value of the time of individuals within partner organizations (e.g. experts in a specific area) spent providing direction and participating in the Project.
 - **For this Call, In-Kind contributions may be used to match no more than 50% of the requested ERA funding for the project.** Samples of tailings or water are not considered cash-equivalent in-kind contributions for the purposes of matching.

Note: Eligibility of in-kind contributions and expenses will be reviewed prior to execution of a contribution agreement. There are very limited situations where in-kind expenses are eligible for ERA matching, and recipient funding may be reduced if ERA deems these ineligible.

ERA will not match other federal, provincial, or international government funds provided directly for the proposed project. However, the inclusion of other government funds does not disqualify a project from eligibility. ERA does not have a formal "stacking" limit alongside other government funds as long as the requested ERA contribution is matched at least 1:1 by contributions from the lead applicant and private partners.

The following examples are provided for illustrative purposes:

- **Example 1** – A project has a total cost of \$8 million in eligible expenses. If the applicant and private partners contribute \$4 million, ERA could contribute up to \$4 million.
- **Example 2** – A project has a total cost of \$75 million in eligible expenses. If the applicant and private partners contribute \$60 million, ERA could contribute up to \$15 million.

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- **Example 3** – A project has a total cost of \$10 million in eligible expenses. If the proponent and private partners contribute \$3 million and the Government of Canada contributes \$4 million, ERA could contribute up to \$3 million.

Please note that ERA will not match future revenue associated with the outcomes of the project, including for example: offset/performance credits associated with the project; tax incentives/credits associated with the project, such as Canadian SR&ED credits; and revenue from sale of the project's outputs or products. However, the presence of such revenue sources does not disqualify a project from eligibility and may be noted in the proposal to improve the risk profile of the proposed financing plan and technology commercialization strategy.

Applicants must ensure that ERA funding is not claimed for the purposes of royalty cost allowances—that is, ERA contributions must not be used to reduce the costs claimed against resource royalties payable to the Government of Alberta. This requirement applies broadly to any project undertaken with a company that pays royalties for natural resource extraction. It is essential that all applicants are aware that this restriction is grounded in the principle of avoiding double benefits from public resources: companies should not be in a position to receive public innovation funding while simultaneously lowering their fiscal obligations through royalty deductions based on the same expenditures. As a standard practice, ERA shares project cost information with regulators and the Government of Alberta for the purposes of auditing royalty and carbon credit claims made in association with any ERA-funded project.

Note: Applicants **do not** need to have all funding secured at the time of proposal submission. While confirmation of secured funding will strengthen a proposal, it is **not a requirement for project adjudication**. ERA typically requires applicants to have funding secured at the time they execute their Contribution Agreement, which is due 60 days after successful funding notification.

3.4 Contribution Agreement

Successful applicants will be required to enter into a contribution agreement ("Contribution Agreement") with ERA. The Contribution Agreement will address without limitation the terms of funding, maximum ERA funding for the project, project scope, work plan, milestones, deliverables, performance targets, payment schedule, and reporting requirements. ERA will provide a draft Contribution Agreement to shortlisted applicants during the presentation stage for review. ERA will only entertain minor changes to Contribution Agreement terms and will not negotiate Contribution Agreement terms prior to making a funding decision.

3.5 Fund Disbursement

ERA's funding will be disbursed on a milestone completion basis after eligible expenses have been incurred toward specified tasks over the course of the project term. ERA's contribution to each milestone will be at the same ratio of ERA's funding toward the total project budget. For example, if ERA is contributing 25% of the total eligible project costs, ERA will pay 25% of the eligible expenses incurred at each milestone. The milestone completion and payment schedule will be outlined in the Contribution Agreement.

3.6 Eligible Expenses

Eligibility of in-kind contributions and expenses will be reviewed prior to execution of a contribution agreement. There are very limited situations where in-kind expenses are eligible for ERA matching and recipient funding may be reduced if ERA deems these ineligible.

Cash Expenses: these represent the actual cash outflow for the project. Cash expenses are those that are being invoiced to the project **and** where payment is being made by either the recipient or project partner and can be supported by supporting cost and payment documentation. Recipient expenses (i.e. labour) are an example of cash expenses.

In-kind Expenses: these include goods or services, which, if not donated, would have to be purchased with project funds. The project is not being invoiced for these goods or services and there is no cash outflow by the project to pay for these goods or services. **While in-kind expenses may represent cost to the project, there are very limited situations where in-kind expenses are considered eligible for ERA matching.**

Recipients must be able to demonstrate the valuation used for in-kind contributions and expenses. When assessing the value, the Recipient should consider the following:

- The value of donated new equipment, materials and supplies should be calculated based on the market value of the equipment, materials, or supplies, not the original cost.
- The rental value of equipment should be calculated based on market rental rates.
- Personnel services, such as services provided by individuals, should be calculated at actual salary rates plus eligible benefits, for time allocated to the project.
- It should be noted that if ERA deems any in-kind expenses as eligible, they must be supported by partner organization invoices, payroll information and timesheets to support the dollar amounts being claimed under the project, and readily available for project audit.

ERA funds may only be used for eligible project expenses; thus, as discussed in Section 3.3, the total eligible expenses for the project impact the amount of ERA funding that may be requested. For information about eligible expenses and costs, please refer to the ERA *Eligible Expenses and Cost Instructions* document available at eralberta.ca/apply-for-funding. For clarity, the presence of ineligible expenses does not disqualify a project or limit its ability to recover costs for eligible expenses. All costs (eligible and ineligible) should be included in the proposal to accurately reflect the extent to which ERA's contribution will be leveraged.

ERA will only contribute toward project costs incurred after the date of ERA's Application Submission deadline (September 24, 2025). Project-related costs incurred prior to ERA's application submission deadline will be considered out of scope, will not be considered eligible project costs, and are not eligible for fund matching from ERA. Furthermore, no disbursements will be made prior to execution of a contribution agreement with ERA, and any project costs incurred prior to execution of a contribution agreement will not be reimbursed by ERA in the event that an agreement is not executed.

3.7 Outcomes Reporting and Knowledge Sharing

Funding recipients will be required to report on project outcomes, achievements, and lessons learned, including, without limitation, GHG reductions (actual and projected), job creation, and other environmental, economic, and social benefits. Reporting requirements will include, without limitation, confidential sharing of data with ERA and preparation of public reports.

All ERA-funded projects with quantifiable GHG emissions benefits will be required to provide ERA with a GHG measurement, monitoring, and verification (MMV) plan for the duration of the project and may be required to provide third-party GHG quantification and reporting upon project completion.

ERA is committed to encouraging widespread knowledge dissemination from funded projects to maximize the benefit of our participation. In addition to written reports, ERA may require recipients to commit to specific activities such as hosting knowledge-sharing workshops, participating in ERA lessons-learned activities, or other knowledge-sharing initiatives, as determined by ERA on a case-by-case basis.

For this Call, ERA anticipates that all funded projects will participate in meaningful engagement and information sharing with regulators, first nations communities, and other relevant stakeholders. Proponents are strongly encouraged to include such elements in their project plan, and ERA reserves the right to impose communications and community engagement requirements on funded projects.

3.8 Funding Leverage

ERA is working in partnership with other funding organizations in Alberta and across Canada. In some cases, there may be an opportunity for ERA to share applicants' proposals with trusted partners and other funders in the system to explore possibilities to leverage funding available from these organizations. Potential funding programs and opportunities that may align with the Call or be of interest to applicants include:

- [Alberta Innovates](#)
- [Alberta Indigenous Opportunities Corporation](#)
- [Alberta Indian Investment Corporation](#)
- [ISED Strategic Innovation Fund](#)
- [Natural Resources Canada Programming](#)
- [Prairies Economic Development Canada](#)
- [Canadian Agri-food Automation and Intelligence Network](#)
- [Results-Driven Agriculture Research](#)

A complete list of trusted funding partners can be found [on ERA's website](#).

During the submission process, applicants will have the opportunity to give ERA permission to share their submissions with trusted funding partners of ERA, where applicable. Please note that ERA will only share applications for the purposes of exploring further funding and with partners where ERA

has a non-disclosure agreement in place. An applicant's preference regarding whether to allow sharing of their application will not influence ERA's assessment of their proposal.

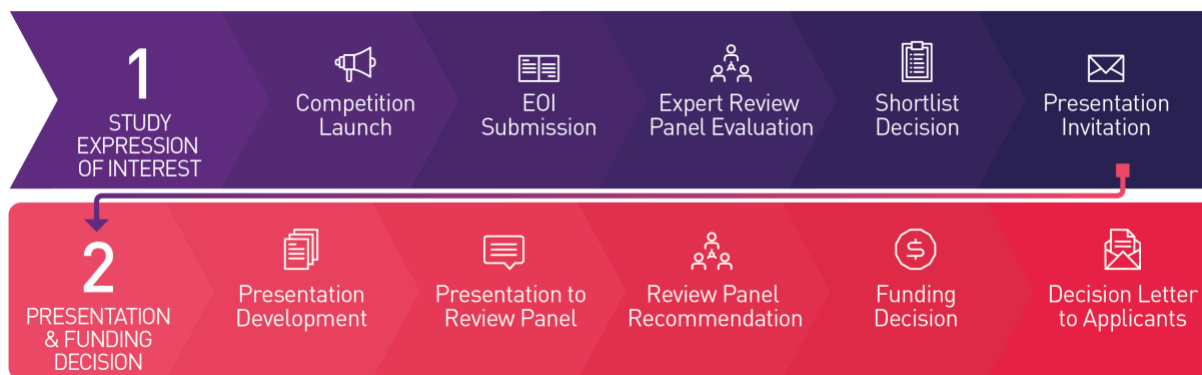
4 Submission Details

4.1 Submission Deadline

The deadline for application Submissions in response to this Call is **September 24, 2025 at 5:00 p.m. Mountain Daylight Time (UTC-6h)**. Late submissions will **not** be accepted. Applicants are encouraged to complete their submissions well in advance of the deadline. ERA will not accept partial or incomplete submissions. All required content must be uploaded into ERA's Emissions Reduction Information Management System ("Grant Manager") at <https://grant-manager.com/erims> and the submission must be finalized by completing all necessary online steps in order for the Submission to be considered complete. Applicants will receive an automatically generated email confirming receipt of the proposal upon submission. If a confirmation email is not received, applicants should check their junk/spam folder and the Grant Manager to ensure the submission was complete. If the problem persists, applicants may contact IMS@eralberta.ca for assistance.

4.2 Funding Process Timelines

Recognizing the need for rapid progress and the smaller volume of eligible activities for this Call, ERA has implemented a modified intake process specific to this Call:



ERA will accept Submissions from all interested applicants. ERA will review all Submissions in a competitive process to establish a shortlist of strong opportunities. Applicants on the shortlist will be invited to present to ERA's expert review panel and will be subjected to additional due diligence. The review panel will then provide a funding recommendation to ERA's Board of Directors.

The following timelines are anticipated for the full funding process. Note that ERA reserves the right to alter these timelines or cancel the Call.

Action	By Whom	Timing
Proposal Submission Deadline	Applicants	September 24, 2025
Shortlist Notification / Presentation Invitations	ERA	Late October 2025
Presentation sessions	Applicants	Early December, 2025
Funding Decision Notification	ERA	January 2026

4.3 Submission Content

Submissions must be presented using Grant Manager at <https://grant-manager.com/erims>. Users must create an account and complete all mandatory forms to submit an application. Each submission must consist of the following:

- **Application Document (Required):** This document will form the basis of ERA's evaluation and must fully address each of the evaluation criteria.
- **Appendix A: Milestone Summary Table (Required):** This document complements the Implementation Plan section in the Expression of Interest document. It is currently found at the end of the Expression of Interest Template, and can be included in the same PDF file as the Expression of Interest, or as a separate attachment.
- **Appendix B: Applicant Financial Information (Required):** This includes the Financial Report template (in PDF or .docx), and most recent financial statements (PDF).
- **Appendix C: Detailed Project Budget (Required):** This document is an excel template which provides a breakdown of the project costs and must be uploaded separately to Grant Manager. The excel file should not be converted to other file types.
- **Appendix D: Letters of Support (Required):** Letters of support from partnering organizations, funding sources, site hosts, etc., may be uploaded as an appendix to the Submission document. Please combine all letters of support into a single PDF attachment.
- **Online Information (Required):** In addition to the documents outlined above, applicants are also required to enter general information about the project into the Grant Manager online system.

Note: Only the required documents and information described above will be reviewed. Any additional attachments, materials or information appended to the required documents will not be considered during the evaluation.

4.4 Submission Standards

A response template will be provided on Grant Manager for the Submission document during the application process. Applicants must use the response template to ensure that all necessary information is provided in a consistent and practical manner. Applications that fail to use the template may not be considered.

Note on required file naming convention: All documents uploaded to the Grant Manager will have the Submission number and applicant name automatically appended to the filename. Please do not include the Submission number or full corporate legal name in filenames. Applicants are encouraged to use short filenames (no more than 30 characters) with no special characters to ensure their files are processed correctly.

The final Submission document must be uploaded in PDF format and may be no more than twenty (20) letter-sized (8.5" x 11") pages in length, including all text, graphics, and tables. **Any extra pages beyond the limit will be removed from the document and will not be considered by the evaluators.** The document must use Calibri (or Arial) 11-point font with a minimum of 1.0 line spacing. Margins must be no smaller than 2.54 cm (1"). Only one Submission document and one document with compiled letters of support may be uploaded per submission.

Note: The page limit does not include optional letters of support, or the milestone summary table.

4.5 Applicant Support and Contact Information

Applicants are welcome to contact ERA at any time throughout the process for support and guidance on completing their application. Before contacting ERA, applicants are encouraged to read the FAQ document available on the Call website and to carefully consult the guidelines and template. ERA provides all applicants with support from key points of contact to answer questions regarding the guidelines, template, Grant Manager, evaluation criteria/process, and technology/project alignment with the Call. ERA will not provide pre-reviews or feedback on Submission proposal content.

The points of contact for this Call are as follows:

- Assistance with Call guidelines and template: applications@eralberta.ca
- Assistance with Grant Manager online application system and submission: IMS@eralberta.ca
- Other information and general inquiries: applications@eralberta.ca

Due to high anticipated volumes, please allow up to one week for responses to email inquiries. Using alternate email addresses, such as ERA's general information email or media contact email, may result in a delayed response to your request.

Note: Following submission of an application, applicants are only permitted to discuss their proposal with members of ERA's Applications team (points of contact listed above). To maintain the integrity and fairness of the process, and to ensure efficient communication, contact with other individuals affiliated with the process (including reviewers, ERA executives, ERA Board members, and Government of Alberta representatives) regarding any active ERA application is strictly prohibited. Inquiries submitted by applicants outside of appropriate channels will not be responded to, may be reported to the independent Fairness Monitor for the process, and could

lead to disqualification of a proposal. For clarity, this restriction does not apply to official Call proceedings such as applicant presentation sessions.

Applicants are encouraged to reach out to the Applications team at applications@eralberta.ca at any time for assistance. The Applications team is happy to refer applicants to appropriate contacts. Similarly, applicants are encouraged to contact the Applications team directly and promptly with any fairness concerns that may arise at any point in the process.

5 Evaluation

5.1 Methodology

Submissions will be evaluated based on their potential to achieve the goals of ERA's mandate and this Call for Proposals. Each Submission will be assessed using the evaluation criteria below to determine how well the opportunity aligns with a set of overarching objectives. Each of these criteria contributes to the overall merit, outcomes potential, and risk level ascribed to each project. This is a competitive process, i.e., proposals are evaluated on their absolute merits as well as in comparison to the set of proposals received. Evaluations are conducted by a team of subject matter experts, overseen by an independent fairness monitor and supported by ERA's technical team and service providers. All final funding decisions will be made by ERA's Board of Directors.

5.2 Evaluation Criteria

All proposals will be evaluated based on the following criteria. Each of the evaluation criteria below is assigned a relative weighting. Applicants are encouraged to consider these weightings when developing their proposals. The prompts and instructions found in the Submission template provide additional detail on the specific considerations within each criterion.

Criterion	Description	Weight
Technology Advancement	Proposals will be evaluated based on the strength and relevance of the proposed solution, including how it functions and what tailings or mine water issues it addresses. Applicants must clearly articulate what aspect of mine operations their technology targets, how their technology performs against existing technologies or practices, and how the technology aligns with other elements of complete solutions for tailings and mine water. In particular, applicants should quantify the targeted commercial scale for the technology (e.g. in m ³ /d, km ² , etc.) and the steps needed to achieve that scale from the current state. The energy and chemical inputs for the process should be quantified, the operating envelope should be defined (e.g. weather conditions, feedstock compositions, etc.), and the outputs should be characterized (e.g. water quality, byproduct specifications, etc.). Applicants must demonstrate how the proposed project will de-risk the technology and how it advances key technical, operational, and regulatory considerations.	15

Implementation & Readiness	Proposals will be evaluated on the achievability and credibility of the project plan, including clearly defined objectives, site relevance, and a realistic work plan with milestones. Applicants will be assessed on the quality of their project design, including the potential for the project to collect important data pertaining to technology performance and other success metrics. Proposals will be evaluated on the strength of the budget and financing strategy, team expertise, and execution structure. Proposals should demonstrate readiness through permitting, site access, and internal approvals, and present a clear path to project launch. Proposals must demonstrate senior-level support to proceed from the applicant and key partners as applicable. Strong submissions will identify key risks and mitigation strategies, justify the need for ERA funding, and demonstrate meaningful partnerships between operators and technology providers where appropriate.	15
Environmental Performance	Proposals must demonstrate how the proposed solution delivers meaningful environmental benefits, including reductions in tailings and/or water volumes, toxicity, and associated risks. Proposals should quantify improvements in elements such as water quality, water use, land disturbance, air emissions, and waste generation. Reductions in GHG emissions, where applicable, must be quantified and described. Strong submissions will also identify potential environmental trade-offs and risks with mitigation strategies. Proposals must address both near-term project impacts and long-term benefits from broader deployment.	25
Economic & Ancillary Benefits	Proposals will be evaluated on the potential to achieve economic and social benefits. These include the potential to create new economic activity, generate employment opportunities, attract investment, build innovation capacity, improve cost competitiveness and market access, reduce health and safety impacts, deliver inclusive economic development, etc. Strong proposals will clearly demonstrate how the technology can reduce liabilities and decrease tailings/water treatment costs at scale. In addition, proposals may demonstrate how they are working with Alberta's post-secondary and research institutions to advance research and training efforts in this area.	20
Stakeholder Engagement	Proposals will be evaluated on how well the applicant has engaged local communities, including Indigenous communities. Proposals will be evaluated on their engagement approach, the depth of partnerships, and commitment to capacity building. Applicants must demonstrate their commitment to cultural and environmental stewardship and how the project will foster long-term community resilience and well-being. Strong proposals will demonstrate a strong strategy for engagement with relevant stakeholders before, during, and after the project, including sharing of information with regulators and policymakers.	10
Commercialization & Market Fit	Applicants should demonstrate how their solution addresses a defined market need within Alberta's oil sands tailings and mine water context. Proposals should quantify deployment potential, describe the market for any outputs or co-products, and outline a credible commercialization pathway. This includes commercial-scale economics, regulatory steps, and partnerships. Applicants should also highlight cross-sector applicability, identify adoption barriers and enablers, and present a clear plan for knowledge sharing to support broader uptake.	15

Note: ERA intends to fund a diverse portfolio representing a range of technology opportunities of various scales and commercial readiness levels. The size of opportunity and potential for widespread environmental and economic benefits will be taken into consideration during project selection. ERA reserves the right to consider optimal portfolio balance and strategic mandate alignment when selecting proposals for funding.

5.3 Eligibility Screening Criteria

In addition to the evaluation criteria described above, projects may be screened out based on one or more of the following factors:

- Insufficient alignment with the Call and/or ERA’s overall mandate:
 - Proposed project is inconsistent with the intent or scope of this Call.
 - Proposed development is assessed to be business as usual.
 - Risk of detrimental side effects (environmental, economic, social, etc.).
 - The project proposed is in the “Out of Scope” technologies categories, as outlined in Section 2.2.
- Insufficient Alberta content:
 - Insufficient relevance of the technology or approach to Alberta.
- Insufficient potential for environmental benefits.
- Failure to meet minimum submission standards:
 - Insufficient information provided.
 - Submission not written in English.
 - Submission not sufficiently readable or comprehensible.
 - Submission does not conform to the submission requirements outlined in the Call guidelines.

It is important to note that compliance with the eligibility criteria does not guarantee a project will be shortlisted or funded in this process.

5.4 Next Steps

Some applicants whose proposals are well aligned with ERA’s mandate, the goals of the Call, and the evaluation criteria will be shortlisted and invited to present their proposal to the ERA review panel. Presentations will be followed by a question and answer session. ERA will use information from both the proposal and presentation stage to inform a funding decision on all shortlisted proposals. Further information regarding presentations and final ERA funding decisions will be made available at the time of invitation to the shortlist.

All applicants who submit a proposal through this Call will be notified of ERA’s decision when the proposal review process is complete. Applicants whose proposals are not accepted may arrange a short debrief phone call with ERA to receive feedback. Information about arranging a debrief phone call will be provided in the notification letter.

5.5 Note on Proposal Quality

This is a highly competitive process, and not all proposals will be shortlisted. Success at the application stage depends on the quality of the proposal submitted. Only the highest quality proposals will be invited to present to ERA's review panel. In this regard, "quality" means both the quality of the proposed study/project relative to the evaluation criteria and the quality of the written proposal (clarity, completeness, etc.).

6 People and Culture

ERA recognizes that it takes more than funding to achieve our mandate of emissions reduction in Alberta. In addition to creating, supporting, and implementing innovative technologies and solutions, people are critical in delivering our desired future. A diverse workforce will assist in reaching shared outcomes and promoting innovation. To inform our engagement efforts and ensure we are accessible for all representative groups, ERA is continuing to gain an understanding of audiences reached through its suite of communication tools. This includes a set of voluntary identity questions asked of applicants at the funding intake phase. These questions are located in the Grant Manager application portal and are optional to complete. ERA requests that the questions be completed by the individual who will lead the project on behalf of the Lead Applicant. Responses will be kept confidential and will not be considered in proposal evaluation or adjudication processes.

7 Intellectual Property

Intellectual property will be addressed through a Contribution Agreement between ERA and each successful applicant, and will be specific to the circumstances of each project. However, a few general principles apply:

- Background IP (patents, copyrights, software, etc.) and third-party technology remains with its original owner(s).
- ERA retains rights to project results, including without limitation the technical data, reports, analysis, and discussion.
- Project outcomes, results, and learnings will normally be made publicly available at the conclusion of the project.
- Project technology (based on patent disclosures) developed as a part of the co-funded activities will be owned by the successful applicant and its partners, in accordance with the IP arrangement between project partners. However, successful applicants will be expected to commercialize and/or make the technology available through reasonable commercial terms for the benefit of Alberta.

8 Confidentiality

ERA is subject to the *Freedom of Information and Protection of Privacy Act*, RSA 2000, c.F-25 in the course of performing duties and functions and exercising powers delegated to it. All data and records in the custody or under the control of ERA that are required in the performance of duties or functions or the exercise of powers delegated to ERA are subject to the *Records Management Regulation*, Alberta Regulation 244/2001.

Subject to the requirements described above, ERA is governed by a comprehensive Privacy, Data Security and Confidentiality Policy (the “Policy”). The Policy requires that any and all information concerning the business affairs of ERA and its directors, officers, employees and applicants is to be kept private, secure and confidential. Confidential information that is collected, used or disclosed by ERA will be handled in a manner that recognizes both the right of the individual to have his or her confidential information protected and the need of ERA to collect, use and disclose such information for purposes that are reasonable.

To read the entire Policy, visit <http://eralberta.ca/privacy>.