

# ERA NATURAL GAS CHALLENGE:

*Unlocking Innovation  
Across Alberta's  
Value Chain*

## FULL PROJECT PROPOSAL GUIDELINES

**Online Submission:** [ERAadmin.ca](http://ERAadmin.ca)

**Deadline:** April 2, 2020 at 5:00PM MDT (UTC-6h)

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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 a Full Project Proposal (“FPP”), you confirm that you have read, understand and accept the information contained in this FPP guideline and that each of you, the applicant (the “Applicant”), 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 FPP intake stage (“FPP Stage”), including but not limited to the FPP requirements, the FPP selection and review process and the FPP eligibility criteria.
- b) ERA reserves the unqualified right to accept or reject any or all FPPs for any reason. ERA is not required to accept highest ranked FPP nor is it required to accept any FPP recommended for funding by the applicable ERA evaluators.
- c) The final decision with respect to project approval rests solely with ERA Board of Directors (“Board of Directors”). The Board of Directors’ evaluation of FPPs may be based on, but is not in any way limited to, the criteria set out in these guidelines. The Board of Directors may consider any criteria determined by the Board of Directors to be relevant to ERA’s mandate, regardless of whether such additional criteria have been disclosed to the Applicant.
- d) FPPs that do not comply with the requirements described in these guidelines may be rejected in whole, in part, or not considered by ERA. ERA reserves the unqualified right to accept or reject a non-compliant FPP.
- e) The transmittal of these guidelines represents an invitation to submit an FPP only. It is not an offer and the submission of an FPP does not create a contract or agreement of any kind between ERA and the Applicant.
- f) 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 Applicant in writing signed by an authorized person for ERA, will constitute an acceptance of an FPP.
- g) Acceptance of an FPP does not create any binding contract between ERA and the Applicant. ERA shall not be obligated in any matter whatsoever to any Applicant until a written contribution agreement (“Contribution Agreement”) between CCEMC operating as ERA and the Applicant has been duly executed relating to an approved FPP.
- h) As between the parties, the FPP and all documents and materials you submit to ERA in connection with the FPP 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 successful Applicant.
- i) You, the Applicant and any project partners will keep this FPP Stage confidential and will not use, reproduce or distribute it, any portion of it, or any data, information, drawings, or

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specifications included in or provided with it except as necessary to prepare an FPP as requested by ERA.

- j) Neither ERA nor any of ERA Parties will have any liability whatsoever to you, the Applicant or any project partners, or any of them, in connection with the preparation of this FPP.
- k) You, the Applicant 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 FPP Stage. You are undertaking the expenditures required to prepare and submit an FPP 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 FPP Stage or any FPP prepared in response to it, whether such right or claim arises in contract, negligence or otherwise.
- l) ERA takes no responsibility for the accuracy of the information supplied during this FPP Stage process by ERA or ERA Parties.

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# 1 Introduction

## 1.1 ERA

**Emissions Reduction Alberta** (“ERA”) is a registered tradename of the Climate Change and Emissions Management (CCEMC) Corporation. For 10 years, ERA has been investing the revenues from the carbon price paid by large final emitters to accelerate the development and adoption of innovative clean technology solutions. Since establishment in 2009, ERA has committed over \$550 million toward more than 160 projects that are helping to reduce GHGs, create competitive industries, and are leading to new business opportunities in Alberta.

## 1.2 Document Scope

In October 2019, ERA launched a call for Expressions of Interest (“EOIs”) seeking innovative technology solutions for reducing GHG emissions and securing Alberta’s success in a lower-carbon economy applicable to the Natural Gas Value Chain. All EOIs received by ERA in response to this call were reviewed, and some applicants have been invited to submit a Full Project Proposal (“FPP”).

This document provides information, guidance, and requirements for submission of FPPs in response to the invitation. Submission to the FPP stage of this Call for Proposals (“Call”) is by invitation only; no unsolicited FPPs will be accepted.

# 2 Terms of Funding

Funding 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 the funding is being requested. Any related work completed before the project term or concurrently but outside the scope of the proposed project may be discussed in the proposal but should be clearly indicated as such.

## 2.1 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.

## 2.2 Maximum Contribution

The maximum contribution from ERA toward any individual project funded through this Call is **\$10 million CAD**.

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## 2.3 Cost Sharing

ERA will match contributions toward eligible expenses on a maximum one-to-one (1:1) basis with the Applicant. As such, the maximum ERA contribution to a single project will be no more than **50%** of the project's eligible expenses. When co-funding alongside a trusted partner funding organization, ERA's contribution will normally not exceed one third of the eligible expenses.

ERA will only match unencumbered cash contributions to the project for eligible expenses. ERA will not match other government funds provided directly for the proposed project (provincial, federal, or international), or future revenue associated with the outcomes of the project such as offset credits, Canadian SR&ED credits, or sales revenue from the project's end-products. However, the presence of these revenue sources does not disqualify a project from eligibility and may be noted in the FPP, as the merits of these contributions will be taken into consideration during the evaluation.

For information about eligible expenses and costs, please refer to the ERA *Eligible Expenses and Cost Instructions* document available at <https://eralberta.ca/natural-gas-challenge>.

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

## 2.4 Contribution Agreement

Successful applicants will have three (3) months after receiving the notice of funding approval to enter into a contribution agreement ("Contribution Agreement") with ERA. The Contribution Agreement will address the following elements, without limitation: project scope, work plan, milestones, deliverables, performance targets, payment schedule, reporting requirements, and terms of funding.

## 2.5 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.

Recipients of ERA funding will also be expected to provide post-project updates for five years following project completion. This information allows ERA to better understand and communicate the longer-term outcomes of our funded projects, commercialization of the technology innovations, follow-on investment attraction, and the environmental and economic impacts of our funding. It also enables us to identify potential opportunities for follow-on projects to help achieve commercial success or make connections where that might be helpful.

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

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to commit to specific activities such as hosting of knowledge-sharing workshops or participation in ERA lessons-learned events.

## 2.6 Project Financing

ERA will finance approved projects on a milestone-completion basis. Specific details regarding payment of ERA's contribution in relation to the project work plan, timing, milestones, deliverables, and reporting will be specified in the Contribution Agreement.

## 2.7 Project Term

The maximum length for projects funded through this Call is **three (3) years** from project commencement.

## 2.8 Project Commencement

Projects may commence after notification of ERA funding approval. However, no disbursements will be made prior to execution of a Contribution Agreement with ERA. ERA will only contribute toward project costs incurred after the date of ERA funding approval. Project-related costs incurred prior to ERA funding approval will be considered out of scope, will not be considered eligible project costs, and are not eligible for fund matching from ERA. Furthermore, 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.

## 2.9 Trusted Partner Funding Leverage

ERA works 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 explore possibilities to leverage funding available from these organizations. During the submission process, applicants will have the opportunity to have their submissions shared with ERA's trusted partners. Please note that ERA will only share these applications with partners where ERA has a non-disclosure agreement in place and for the purposes of exploring the possibility of further funding leverage from such trusted partners.

# 3 Submission Details

## 3.1 Submission Deadline

The deadline for submission of FPPs is **Thursday, April 2, 2020 at 5:00 PM Mountain Daylight Time (UTC-6h)**. Late submissions will **not** be accepted. Applicants are encouraged to complete their submissions well in advance of the deadline. Furthermore, ERA will not accept partial or incomplete submissions. All required content must be provided through ERA's Emissions Reduction Information

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Management System (“ERIMS”) at <http://eraadmin.ca> and the submission must be finalized by completing all necessary online steps in order for the FPP to be considered complete.

**Note:** An automated email will be sent out by the ERIMS confirming that the application has been submitted. If a confirmation email is not received after submission, please contact [ims@eralberta.ca](mailto:ims@eralberta.ca) or 780-441-6801 in advance of the submission deadline for assistance.

### 3.2 Process Timelines

The following timelines are anticipated for the FPP stage of this Call. Note that ERA at its sole discretion reserves the right to alter or cancel the currently-anticipated timelines.

Action	By Whom	Timing
FPP Submission Deadline	Applicants	April 2 2020
FPP Oral Presentation	Applicants	April 27-29 2020
Funding Decision Notification	ERA	June 2020

### 3.3 Submission Process and Content

All FPPs must be submitted using the ERIMS at <http://eraadmin.ca>. Users must create an account and complete all mandatory forms to submit an application.

Each submission must consist of the following:

1. **Full Project Proposal Document:** This document will form the basis of ERA’s evaluation, and must fully address each of the evaluation criteria.
2. **Appendix A – GHG Quantification Report:** This document must be uploaded separately to the ERIMS (see Appendix A).
3. **Appendix B – Applicant Financial Report:** This document must be uploaded separately to the ERIMS (see Appendix B).
4. **Appendix C – Detailed Project Budget:** This document must be uploaded separately to the ERIMS (see Appendix C).
5. **Appendix D – Letters of Commitment:** Letters of commitment from partner organizations, funding sources, site hosts, etc., may be uploaded to the ERIMS as an additional appendix to the FPP document (see Appendix D).
6. **Project Information:** As applicants work through the ERIMS, certain project details must be entered directly to the 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.



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### 3.4 Submission Standards

A response template will be provided on the ERIMS for the “Full Project Proposal Document” described above. The response template will be located in “Section 4 – FPP Guidance and Templates” of the FPP submission area of the IMS system. Applicants **must** use the response template. Applications that do not use the template may be withdrawn from consideration.

The final FPP document must be uploaded in both MS Word and PDF format, and may be no more than forty (40) 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 FPP document of each type (Word and PDF) may be uploaded per submission. All documents must be written entirely in English.

Filenames for uploaded documents may be no longer than 30 characters.

<p><b>Note:</b> Appendices A, B, C, D, and information entered directly into the ERIMS do <u>not</u> count toward the forty (40) page limit.</p>
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### 3.5 Proposal Advisor

An ERA proposal advisor has been assigned for each application advancing to the FPP stage. The proposal advisor will be each applicant’s primary point of contact with ERA over the course of the FPP process, and is available to answer questions during preparation of their submission. Contact information for the assigned proposal advisor is provided in the FPP invitation letter.

Applicants are encouraged to submit a draft FPP to their proposal advisor for review by no later than March 16<sup>th</sup> 2020 in order to provide sufficient time for assistance and response to enquiries.

### 3.6 Oral Presentation

All applicants will be invited to deliver a presentation to ERA after their FPPs have been submitted. Further information regarding these presentations, including the time and location, will be provided to each applicant by ERA after FPP submission. Applicants are encouraged to ensure that someone is made available to present at the allotted time.

## 4 Evaluation

### 4.1 Methodology

FPPs will be evaluated based on their potential to achieve the overarching goals of ERA’s mandate and the *Natural Gas Challenge*. Each FPP will be assessed using the evaluation criteria below to

determine how well each FPP aligns with a set of overarching objectives. Each of these criteria contributes to the overall potential associated with the proposed projects. All final funding decisions will be made by ERA’s Board of Directors.

<b>Criterion</b>	<b>Weighting</b>
<b>Opportunity</b>	<b>35 Total</b>
1 Technology Strength	15
2 Market Potential	10
3 Commercialization Pathway	10
<b>Outcomes</b>	<b>40 Total</b>
4 GHG Benefits	20
5 Economic Benefits	15
6 Additional Benefits	5
<b>Implementation</b>	<b>25 Total</b>
7 Work Plan and Budget	10
8 Financing Plan	5
9 Project Team and Partnerships	10
<b>Total</b>	<b>100</b>

## 4.2 Evaluation Criteria

The evaluation criteria for this Call are described below. Further information about how to address each of the criteria is provided in the FPP response template.

### Opportunity

- 1. Technology Strength | Weight: 15**  
 Proposals will be evaluated on the strength of the proposed technology, the novelty and innovation of the technology or application thereof, the competitive advantages of the proposed solution relative to existing and nascent technologies, and the expected technology advancement over the course of the project.
- 2. Market Potential | Weight: 10**  
 Proposals will be evaluated on the strength of the market opportunity, including the size of addressable market(s) within Alberta, the receptor capacity within the target market, and alignment of the technology with current and anticipated market needs.
- 3. Commercialization Pathway | Weight: 10**  
 Proposals will be evaluated on the expected pathway toward commercial implementation and market rollout, including the business case for the project, the commercialization plan, the proposed business model, and the strategy for market entry including commercial partnerships, customer engagement, and knowledge dissemination.

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## Impact

4. **GHG Benefits | Weight: 20**

Proposals will be evaluated on the potential for significant and sustainable GHG benefits in Alberta, including direct GHG reductions from implementation of the project, future GHG reductions from subsequent implementation of the technology in the marketplace, and GHG reductions enabled by the technology, including benefits related to facilitating a low-carbon economy and enabling Alberta to be sustainable and competitive in an increasingly GHG-constrained global economy.
5. **Economic Benefits | Weight: 15**

Proposals will be evaluated on the potential for economic benefits in Alberta, including increased employment, regional economic development, attraction of investment capital, export opportunities, enhanced competitiveness for Alberta businesses, and economic diversification such as development of new value-added products or exports.
6. **Additional Benefits | Weight: 5**

Proposals will be evaluated on the potential to provide additional benefits to Alberta, including reduced environmental impacts (e.g. related to air quality, water consumption, and land use), collaboration with post-secondary and research institutions, increasing innovation capacity, and development of highly-skilled personnel in the province.

## Implementation

7. **Work Plan and Budget | Weight: 10**

Proposals will be evaluated on the strength of the project plan and budget, including the overall objectives and success metrics for the project, achievability of the work plan relative to the project objectives, and the quality of information breakdown for the work plan and budget.

**Note:** Any material changes in the project proposal (including scope, objectives, plan, budget, etc.) between the EOI stage and the FPP stage must be clearly identified, described and justified.

8. **Financing Plan | Weight: 5**

Proposals will be evaluated on the plan for financing the proposed scope of work, including the financial position of the applicant organization, the level of funding committed to the project, the plan to secure full funding for the project, and the justification for ERA funding.
9. **Project Team and Partnerships | Weight: 10**

Proposals will be evaluated on the capacity of the project team to carry out the proposed project, including the expertise and level of commitment from key team members and partners, the organizational capacity of the project lead and partners to support the project, and the effectiveness of the project management structure.

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### 4.3 Note on Proposal Quality

The FPP evaluation process is highly competitive and only the highest-quality projects will be considered for funding. Success in this Call depends on the quality of the FPP submitted. In this regard, “quality” means the merits of the proposal in terms of both the potential for impacts based on the assessment criteria and how well the criteria are addressed, including completeness and clarity. It is incumbent on each applicant to communicate the proposed project’s merits through the responses provided in the FPP.

## 5 Intellectual Property

Intellectual property (“IP”) 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, copyright, software) 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 developed as a part of the 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.

## 6 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

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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>.

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## Appendix A: Greenhouse Gas Quantification Report

The following information must be included in a greenhouse gas quantification report (Appendix A) and submitted online as part of the final FPP submission. If you have any questions or require clarification about aspects of the GHG quantification report, please contact [GHG@eralberta.ca](mailto:GHG@eralberta.ca).

Emission reductions are categorized as follows: project, market, and associated. Project emission reductions are those emission reductions that result from the funded project. Market emission reductions are emission reductions that result from the adoption of the technology into the Alberta marketplace. Associated emission reductions are those emission reductions that are facilitated but are not directly caused by the technology (e.g. carbon separation technologies, behavior tracking programs, etc.).

### A. GHG Assertion

The GHG assertion must include the following information:

- 1) Estimated emission reductions/removal enhancements from the project to 2025, 2030, and 2040; and
- 2) Estimated emissions intensity reduction (e.g. per barrel of oil, etc.) at commercial implementation of the technology in Alberta. We use the GHG emission reduction intensity to model future emission reductions based on the market size; hence, the intensity denominator and market size must have the same units.

### B. The Project

A description of the project including the material sources and sinks, and the quantification methods (e.g., emissions factors) used to calculate the emissions (the Alberta Carbon Offset Emission Factors Handbook, 2015 is a recommended reference);

### C. The Baseline

A description of the baseline must contain the following information:

- 1) The baseline selected;
- 2) Material sources and sinks, and the quantification methods used to calculate the emissions in the selected baseline;
- 3) If the baseline is different than industry average, identification of the baseline, its material sources and sinks, and the quantification methods used to calculate the emissions; and
- 4) If a historic baseline is used, a barriers analysis that justifies that the historic baseline is appropriate. A financial (NPV, or ROI) analysis is a common approach.

### D. The Commercial Unit

The following information must be provided for a typical commercial unit (actual or potential) using the technology proposed in this Proposal:

- 1) A description of the smallest size of the technology that can be used/deployed independently (i.e. the commercial unit);

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- 2) Material sources and sinks, and the quantification methods used to calculate the emission reductions for the commercial unit;
  - 3) The production or supply requirements from the smallest commercial unit depending on what is used to calculate the GHG intensity;
  - 4) A baseline description that was used to calculate the GHG intensity; and
  - 5) If different than the project, the expected greenhouse gas intensity (tonnes CO<sub>2</sub>e/unit of production or supply units) for the commercial unit;

**E. Future Changes to the Baseline**

Identification of situations that may change the baseline in the future, which can include current or impending laws or regulations.

**F. Functional Equivalence:** Describe the functions and services provided by the baseline, project and commercial unit and justify whether the baseline, and the project and commercial unit provide the same services and products. This may include a description of the quality (e.g., temperature, pressure, concentration, maximum contamination levels, etc.) of the feedstock and products of your process.

**G. Additionality:** An indication of whether the project site will be either located at a facility subject to Alberta's *Specified Gas Emitters Regulation*, applying for offset credits within Alberta's emissions offset system, or neither.

**H. Market Estimates:** The following information must be provided about the market. If there are multiple markets, this information must be provided, as a minimum, for the target market. Other markets are optional but are recommended to demonstrate the extent of application and potential market emission reductions:

- 1) The market size using production units or supply units using a recent date and with a reference;
- 2) Whether the technology applies to the entire market or portions of the market.
- 3) Whether the technology can only be installed on new facilities, can be retrofitted on existing facilities, or both.
- 4) The expected date of first commercial deployment (first commercial unit);
- 5) The expected date that steady-state market penetration will be achieved;
- 6) The expected life span of the technology in its commercial setting.

**I. Associated Estimates:** Associated emission reductions are those emission reductions that are facilitated by the technology but not directly caused by the technology (e.g. the separation component of CCS). If applicable, provide the following:

- 1) The associated market size using production units or supply units using a recent date and with a reference;
- 2) Whether the technology will facilitate emission reductions in the entire market or portions of the market.

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- 3) Whether the technology facilitates emission reductions at new facilities, at existing facilities, or both.
  - 4) The expected date of the first facilitated emission reductions;
  - 5) The expected date that facilitated emission reductions reach a steady-state market penetration;
  - 6) The expected life of the technologies facilitation.
- J. For Technologies that Access New Markets and/or Resources:** If your technology is accessing new markets or resources, describe the new market or resource to be accessed, and whether the development of this market would reasonably occur in the future.
- K. GHG Risks:** If there are unusual or unanticipated uncertainties associated with the GHG measurements and calculations.
- L. Future Verifiability:** ERA verifies significant projects at the end of the funding to determine funding results. To ensure verifiability, provide a brief description of the measures that will be used during the project operation to determine the GHG emission reductions, the associated data management systems, key measurements for the commercial unit, and any baseline monitoring.

**Additional Information:** The following is provided here to assist GHG reduction calculations:

- **General**
  - GHG emissions should be expressed in metric tonnes of CO<sub>2</sub>e with prefix multipliers (e.g., kilo, mega, micro), if appropriate.
  - GHG emission intensity should be expressed in tonnes CO<sub>2</sub>e/unit product with prefix multipliers, if appropriate.
  - Standard temperature is 15°C and standard pressure is 1 bar;
  - ERA considers GHG sources and sinks that are less than 5% of the emission reduction to be immaterial.
  - The Global Warming Potentials specified in the 2007 IPCC (fourth report) are to be used.
  - **If there is an applicable Alberta Offset Protocol, please use the quantification methodology prescribed in the Protocol. Protocols flagged for review may be used; however, GHG emission reduction calculations may be adjusted to align with the developing Alberta policies.**
- **Baseline:**
  - Any GHG emissions reduction is relative to a baseline (or reference).
  - In many cases, the most appropriate baseline will be the industry average practices.
  - If you believe an alternative baseline is more appropriate, please contact the ERA at 403-607-7871 (Dr. Christine Schuh) to discuss its application prior to submission.
  - In all cases, the choice of baseline needs to be **identified and well justified**.



- **GHG emissions intensity reduction:**
  - GHG emissions intensity refers to the greenhouse gas emissions per unit of production, expressed in units of *tonnes CO<sub>2e</sub> / unit production*.
  - A reduction in GHG emissions intensity represents a decrease of GHG emissions intensity for the same product (see functional equivalence below).
- **Functional equivalence:**
  - It is important to ensure that there is functional equivalence between the baseline and the proposed technology.
  - Functional equivalence means that the same functionality is provided in both the baseline and project conditions. For example, a more energy efficient light bulb would need to provide the equivalent amount and quality of light to be considered functionally equivalent.
- **Life cycle basis:**
  - ERA does not require a full GHG life cycle analysis for the project emission reductions, but does require a life cycle approach.
  - GHG emission sources that do not need to be quantified in the life cycle are those with equal representation in the baseline and project (e.g., they have the same emission factor and activity level) or those that are immaterial to the emission reduction.
- **Commercial-scale implementation:**
  - For technology development and small demonstration projects, there are not likely GHG emissions reductions directly from implementation of the project, but rather if the proposed technology were to be adopted at a commercial scale.
  - In these cases, it is important to provide an estimate of the GHG emissions reduction intensity at the commercial scale (e.g. commercial-sized facility), and to clearly describe the scale of commercial operations used for quantification.
- **Market size:**
  - Choice of production or supply to estimate the market is based on which aspect restricts the market size the most.
  - To estimate the market deployment GHG reduction potential, it is important to understand and clearly describe the market size in units of production or supply that would be realistically applicable for the proposed technology.
  - There may be more than one applicable market for the technology.
  - In cases where markets are growing or changing, the anticipated market development should be described and well justified.

A table is provided below as an example of how annual GHG emissions reduction estimates can be presented. The total GHG emissions from sources in the project subtracted by the total GHG emissions from sources in the baseline represents the annual emissions reductions.

Emission Source or Sink	Measured Value	Emission Factor	Emissions
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## Appendix B: Applicant Financial Report

The following information must be included in a financial report (Appendix B) and submitted online as part of the final FPP submission. For further guidance, please contact Heather Stephens at [hstephens@eralberta.ca](mailto:hstephens@eralberta.ca).

1. Organizational description – Including but not limited to the following:
  - a) A description of what the Applicant does (i.e. industry, product/service offering);
  - b) Number of employees in the Applicant organization (as time of application);
  - c) When did the Applicant incorporate and where is it located;
  - d) Whether the company is privately held or publicly traded;
  - e) Indicate whether the Applicant is a wholly owned subsidiary and provide information on the parent company (e.g. name, industry, location, etc.);
  - f) If the Applicant is not a wholly owned subsidiary, indicate who the majority shareholders are (include capitalization table); and
2. Financial statements (including balance sheet, income statement, cashflow, notes to the financial statements and if available, management discussion and analysis) for the preceding 2 fiscal years. If available, please include the most recent interim internal financial statements and cash flow projections. If financial statements are publicly available, you may refer to the location on your website or SEDAR/EDGAR where they can be found.
3. Letter of credit or bank reference letter from the relevant financial institution, or parent company showing guarantees relating to the Applicant's or any Project partners' credit (if no public credit ratings are available).
4. Documentation and a corresponding dollar value relating to any of the following (if applicable):
  - a) Any current or potential litigation;
  - b) Any significant commitments and contingencies outside the normal course of business;
  - c) Description of any other significant projects under consideration or currently being undertaken by the Applicant.
5. With respect to Proponent or Partner funding contributions, please advise if they are subject to any formal approval processes (e.g. board approval, budgetary approval, funding agency approval etc.) and when these are scheduled to take place.
6. Financial Modelling to support Commercialization
  - a. Has a financial model been developed to evaluate the commercialization potential of the technology? If so, please provide.
  - b. What are the key financial assumptions to a successful commercialization of the technology?
  - c. Without external funding, does the technology generate a sufficient returns to justify the commercialization of the technology?

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## Appendix C: Detailed Project Budget

All applicants must complete and upload a detailed budget using the Excel template provided on the ERIMS. The completed budget must be uploaded in the original Excel format. For further guidance, please contact Heather Stephens at [hstephens@eralberta.ca](mailto:hstephens@eralberta.ca).

**Note:** Applicants should review the ERA *Eligible Expense and Cost Instructions* document available at <https://eralberta.ca/natural-gas-challenge> to determine if budgeted costs are aligned with these instructions. Please indicate any costs which do not follow this guidance. In addition, any non-cash contributions should be separately identified.

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## Appendix D: Letters of Commitment

Applicants are encouraged to provide signed letters of commitment and letters of support from project partners, including financing entities, potential end users, industry partners, and others. Signed letters should be converted to PDF and combined into a single document, and should include the following information:

- Name of partner;
- Summary of participation in the proposed project;
- Details of funding commitments and any timelines or conditions associated with the confirmation of these or other restrictions placed on the funding provided by the partner; and
- Original signature from an Officer of the Company able to legally commit funds from the company or organization.