



ENERGY SAVINGS FOR BUSINESS

Investing to keep businesses competitive

ESB Expanded Technologies Pilot Guidelines

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1. Introduction

1.1 ERA's Energy Savings for Business Program

Emissions Reduction Alberta's (ERA) Energy Savings for Business Program (ESB Program) is a funding opportunity to support small and medium-scale industrial and commercial businesses in Alberta. The ESB Program may award up to \$55 million to eligible and commercially available technologies that result in cost-saving and emissions reducing Projects. The ESB Program helps Alberta businesses reduce emissions, decrease operating costs, grow their operations, and become more competitive, while creating skilled jobs and boosting economic recovery.

1.2 Expanded Technologies Pilot Background

With over 60 unique technologies currently supported on the ESB Measures List, the ESB Program is one of the most comprehensive 'menu-based' incentive programs of its kind. However, the energy efficiency economy is dynamic, where new Technology System(s) with potential to deliver novel cost savings are regularly coming into market and are readily available for implementation. The ESB Expanded Technologies Pilot (ETP or Pilot) is an extension of the ESB Program that attempts to offer flexibility within this evolving efficiency marketplace. **The purpose of this Pilot is to offer a pathway for ERA to explore commercial Technology System(s) that could be measures funded under ESB or future initiatives.** The ETP aims to support and evaluate technologies *not* currently available within the ESB Program as listed in the current [ESB Measures List](#) (updated from time to time), but have high potential to reduce emissions and align with a future prescriptive based program.

1.3 Guideline Document Scope

While ETP is a part of the ESB Program, it follows a modified process where interested parties may submit a Project proposal for funding. This proposal will then be considered by ERA for funding under the ETP. The ETP application and evaluation process consists of two stages: 1) Expression of Interest (EOI), and 2) Full Project Proposal (FPP) (see Section 6). Upon ERA's approval of an FPP, a Contribution Agreement will be finalized and executed with the successful Lead Applicant setting out the terms and conditions of ERA's funding. ETP applications will be reviewed monthly as they are submitted, but funding will be awarded only to successful applicants that meet the criteria outlined below. Eligible businesses interested in applying should familiarize themselves with these Guidelines as eligibility, Project selection, and other processes in the ETP may differ from the current ESB Program.

2. Eligibility

2.1 Lead Applicants and Project Partners

Collaboration between organizations is permitted and encouraged within ETP and can often represent a strong value proposition by demonstrating opportunities for market commercialization and sharing of results. Lead Applicants and their Project Partners may include any combination of technology developers, product, and service providers (including but not limited to equipment installers, engineering firms, and commercial energy auditors), Facility owners, operators, and others.

Please consider the definitions and general requirements contained in this document when determining which organization should be responsible for applying as a Lead Applicant. ERA recommends that the primary technology provider/installer be the Lead Applicant and the Facility owner/operator be the Project Partner.

Lead Applicant: The primary point of contact for the Project, the sole contracting party with ERA under the Contribution Agreement, and the direct recipient of funding. It is the responsibility of the Lead Applicant to ensure compliance with the Contribution Agreement.

Project Partner: Any organization partnering with the Lead Applicant to participate in the completion of the Project.

Requirements:

- (a) The Facility owner or site owner must be included as either a Lead Applicant or Project Partner.
- (b) If the Technology System(s) owner is *not* the Facility or site owner, they must also be included as either a Lead Applicant or Project Partner.
- (c) All Eligible Expenses must be incurred and paid by either the Lead Applicant or a Project Partner.

2.2 Eligible Applicants

As described above, the ETP is open to a wide range of Lead Applicants. To be eligible in the Pilot, all entities (Lead Applicant and listed Project Partners) must meet all the following requirements:

- (a) Is a Person who carries on business.
- (b) Is a privately owned entity and is not a Public Authority.
- (c) Receives 50 per cent or less of its annual revenue from a Public Authority (includes all Project Partners).
- (d) Has the authority to or has obtained the consent to carry out the proposed Project at the proposed Facility, Facilities, or site(s) (either Lead Applicant *or* a listed Project Partner).

All Project Partners must be listed in the Proposal and sign the Acknowledgement Form (contained in the Project Proposal Form).

2.3 Eligible Facility or Facilities

To be an Eligible Facility, a Facility must meet all the following requirements:

- (a) Be located in Alberta.
- (b) Is owned or leased by the Lead Applicant or a Project Partner.
- (c) Meets at least one of the following:
 - i. used solely for commercial or industrial purposes,
 - ii. consists only of the common areas of a multi-unit residential dwelling,
 - iii. is a remote industrial Facility with an applicable Facility ID (Petrinex or equivalent), or
 - iv. is part of a farming operation not consisting of a residence or homestead.
- (d) The Facility is not a Large Emitter.
- (e) The Facility is not, nor is it part of a group of facilities, that are subject to or have opted into the TIER Regulation at any time during the term of this Project.
- (f) To the Applicant’s knowledge, the Facility will continue to operate for the lifetime of the Technology System(s).

Note for 2.3(b): If a Facility is not owned or leased by a Lead Applicant or Project Partner, a long-term operational contract with the Facility Project Partner or Lead Applicant who is responsible for all aspects of the Project including equipment and energy costs, operations, and has the legal right to modify equipment, will be considered as equivalent and eligible under 2.3 (b).

2.4 Eligible ETP Project

ERA will only fund one project (FPP) of each technology type with the following exception. A subsequent project (at the EOI stage) will be considered if it demonstrates the technology system at a different scale, under different operating parameters, in a different operating environment, or with a different utilization purpose such that the GHG reductions, energy savings, or business case outcomes are significantly different. Current technology systems funded through the ETP are updated on the Pilot website weekly. If you have a similar project planned and are considering seeking funding, please contact etp@esbprogram.ca for guidance on whether it will be considered.

ETP Projects should be composed of Technology System(s) that can be supported within ESB or a similar initiative and are comprised of either a one-to-one system replacement or an isolated Technology System(s) upgrade. The Technology System(s) should provide Greenhouse Gas (GHG) emissions reductions that can be consistently and accurately predicted using a simple spreadsheet based model or equivalent, or equations based on engineering first principles, with a limited number of input variables.

An Eligible Project, at a minimum, meets the following criteria:

- (a) Consists of an installation, retrofit, or equipment upgrade which results in a reduction of GHG emissions at the Facility or Facilities where it is installed by means of energy efficiency, energy conservation, waste heat recovery, on-site renewable energy, on-site CO₂ recovery, or fuel switching.
- (b) Consists of a single technology type or integrated technology system type. For clarity, a Project may include multiple units of the same technology types installed at one or more Facility.
- (c) Is installed or implemented at an eligible Facility (Section 2.3) and results in emissions reductions or energy savings within the boundary or operations (Section 9) of the eligible Facility. For clarity, a reduction of on-site electricity consumption would meet this condition.
- (d) Has a Total Project Cost of Eligible Expenses at or exceeding \$10,000 (Section 4).
- (e) Results in GHG emissions reductions at a rate at or below \$200 of total Requested ERA Funding per tonne of CO₂e reduced over the Project life, calculated as described in Section 5 of the EOI.
- (f) Results in a positive Project financial Return on Investment (ROI), calculated as described in Section 10.
- (g) The Applicant has or will obtain all required permits, licenses, approvals, and authorizations that are required by law (including any development, electrical or building permits) to install the Technology System.
- (h) The Technology System will remain installed and operational over the Project lifetime stated in the Proposal.
- (i) The Project must be completed (purchased, installed, and fully operational) by no later than March 31, 2023.
- (j) The Technology System(s) is not fully operational prior to FPP approval.
- (k) The Project, including installation and operation of the Technology System, comply with all applicable laws and regulations.
- (l) Any equipment or parts purchased as part of the Technology System(s) must be new.
- (m) The Technology System(s) is commercialized (the product is proven through successful deployment in operational settings, is available to anyone for purchase, can be manufactured widely and is TRL level 9+. The technology cannot be in the research, development, pilot, or prototype stage).

An ETP Project is **not** eligible if:

- (n) One or more Technologies in the Project are eligible under the current ESB Program, please refer to the [ESB Measures List](#).
- (o) The Technology consists of a grid-connected solar PV under the Alberta Microgeneration Regulation.
- (p) The Project has already received funding under the ESB Program or any other ERA initiative.
- (q) The Project has already received or been approved to receive financial incentives, funding, subsidies, grants, or other monies as a result (directly or indirectly) of the TIER Regulation, the repealed Climate Leadership Act, or the Pan-Canadian Framework.
- (r) The Project is strictly an operational, process or behaviour change.
- (s) The Project is classified as routine maintenance conducted as part of normal operations or industry standard.
- (t) The Project is required by law or regulation.
- (u) The Project is classified as standard business practice.
- (v) The Project requires complex modelling with several inputs, pre- and post-energy audits, or measurement and verification to calculate energy savings or greenhouse gas emissions reduction.
- (w) The project includes technologies exclusively functioning as power quality management (such as power factor correction, harmonics reduction, etc.), energy load shifting technologies, or reduces system losses upstream of the meter.

3. Project Funding Contributions

ETP Projects are eligible to receive funding up to the maximum of:

- 50 per cent of the Total Project Eligible Expenses,
- \$250,000 per Project (meaning per EOI), or
- \$1,000,000 per parent company, calculated based on participation in any Project whether as a Lead Applicant or a Project Partner, and **including current ESB Program incentives and ETP funding.**

In the Proposal, Applicants must specify the requested level of funding required to successfully complete the Project and provide a budget narrative to support and explain the requested funding. Applicants whose FPP are approved will be provided a conditional funding letter that specifies the maximum level of available funding along with any additional participation requirements that ERA has determined (e.g., additional monitoring or reporting). At ERA's sole discretion, ERA may choose to offer less funding than requested, or may increase funding beyond the stated limits where strong justification is demonstrated.

Note: If any additional requirements are imposed by ERA, not originally contained within the conditional funding offer, or if the Total Project Eligible Expenses are anticipated to change, Applicants will be given an opportunity to revise their funding request prior to executing the Contribution Agreement. Any changes to Eligible Expenses following execution of the Contribution Agreement must be approved in accordance with the Change Request process (Section 6.6).

4. Eligible Expenses

An Eligible Expense is an expense that meets all the following requirements:

- (a) The expense was incurred directly in support of the completion of the Project, including but not limited to:
 - i. Energy modelling costs;
 - ii. Engineering design costs;
 - iii. Procurement and construction costs;
 - iv. Equipment purchase costs;
 - v. Installation equipment costs (e.g. Cables conduits, racking or anchors);
 - vi. Installation labour costs;
 - vii. Costs of interconnecting with the electrical and/or natural gas distribution system behind the meter and application costs associated with obtaining the interconnection;
 - viii. Costs to obtain necessary permits and inspections;
 - ix. Costs for Project commissioning; and
 - x. Costs associated with measurement or verification required as part of the Contribution Agreement;
- (b) The expense was incurred and paid by the Lead Applicant or a Project Partner listed in the proposal forms
- (c) The expense was incurred prior to the Project Completion Documentation Deadline (Section 6.8) stated in the Contribution Agreement
- (d) The expense is included in the Proposal. Changes to Eligible Expenses over the course of the implementation of the Project must follow the Change Request process (Section 6.6)
- (e) The expense relates to costs to dispose or decommission the replaced equipment
- (f) The expense was not incurred before December 1, 2021 (ETP launch).

Capital Assets, such as property, plant, and equipment (PPE) are Eligible Expenses under ETP. All major assets to be purchased must be itemized at the time of Project commencement and should be specified in the Proposal. The asset listing will be reviewed to determine reasonableness of cost and linkage to the Project. The useful life of the asset must be specified. ERA reserves the right to limit capital assets classified as Eligible Expenses. Capital assets must be supported by invoices which disclose the cost of the asset. These requirements apply equally to assets under lease arrangements.

4.1 The following expenses are not Eligible Expenses:

Any expenses which are considered ineligible under these Guidelines will not be included in the Total Project Eligible Expenses for incentive calculations, including costs:

- (a) Not directly required to design, purchase, or install of the Technology System(s);
- (b) Where the applicable Technology System(s) is not installed and not in operation as of the Project Completion Deadline;
- (c) To repair or refurbish existing or used equipment;
- (d) To prepare or modify the Eligible Facility;
- (e) For aesthetic improvements;
- (f) To operate, maintain or upkeep equipment;
- (g) That have received financial incentives, funding, subsidies, grants, supplier discounts or other monies from any other third party;
- (h) GST or any other provincial sales taxes;
- (i) To purchase warranties or insurance;

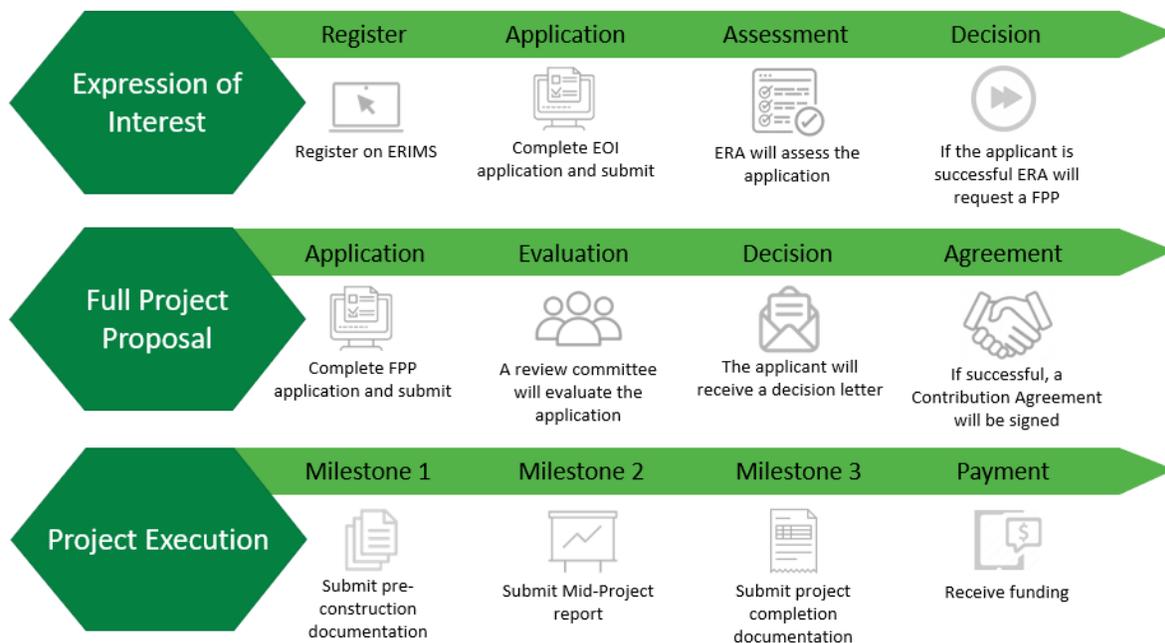
- (j) Overhead, administrative, or internal costs;
- (k) To complete ETP documents;
- (l) Costs incurred prior to December 1, 2021; and
- (m) Any tax costs that result from participation in the Program.

5. ETP Timelines

5.1 ETP Term

The ETP will be open until March 31, 2023, until all funding has been disbursed, or at ERA’s sole discretion. If the Pilot closes earlier than March 31, 2023, ERA will provide two weeks notice for applicants to submit their EOI. To increase the chances of receiving ETP funding, we encourage you to submit an EOI as soon as possible.

6. Application Process



ETP Lead Applicants must register on the ERIMS Platform. Note: this is different than the ESB Program Portal, if you are already registered for the current ESB Program, please create a new ETP account on the ERIMS platform. To register:

1. Go to the website: <https://erims.outcome-plus.com/>
2. Click the Register button on the top right hand of the page.
3. Enter your email address and submit the verification code that is sent to your email. Enter the code on the ERIMS platform and create a password.

6.2 Expression of Interest

The EOI is the first step in the application process where the Applicant fills out high-level information about the project in the template provided. The purpose is to introduce the project to ERA and enable a review of the eligibility and fit within ETP. This will ensure projects that proceed to the detailed FPP stage will have a better opportunity for success. The template is only up to up to five pages long and includes a high-level overview of who the Lead Applicant and Project Partners are, what the Technology System(s) and base case are, Facility description, the Project timeline and budget, including the funding request, and economic and additional benefits.

6.2.1 Submission

After you have registered, Applicants may create an EOI by clicking:

1. “Expression of Interest” on the top menu bar on ERIMS.
2. Select “Expanded Technologies Pilot” from the drop-down menu under “Calls”.
3. Download the EOI form from ERIMS or the ETP website.
4. Fill out the EOI form and upload it as a PDF. The form includes instructions in red and space for Applicants to fill in text, graphics, tables etc. When the Lead Applicant has completed the form, the red instructions can be deleted.
5. One supplemental document (maximum two pages) can be included in the EOI Appendices section, such as the GHG quantification spreadsheet. Any other documents included will not be part of the review process.
6. Press submit and your EOI will be locked while ERA reviews your application.

Tip: Check out the [ERIMS Online Submission Help Guide](#), call the ESB Contact Centre or email ETP@esbprogram.ca and ask for Application Assist if you need help submitting an application. Note that some of the sections in the help guide may be different in the examples than what you will see for ETP.

6.2.2 Evaluation

ERA will review your EOI based on the evaluation criteria set out in Section 7.1. If an Applicant’s EOI is approved to advance to the next level of evaluation, the ERA team will contact you to request a FPP be submitted.

6.3 Full Project Proposal

Once approved at the EOI stage, the FPP is the next step in the application process. The purpose of the FPP is for ERA to complete a detailed review of the merits of the Project, quantify the emissions reductions, use the information provided to track and support project progress and to have an increased technical understanding of the proposed Technology System(s). The FPP includes similar information to the EOI, but at a more detailed level. It includes further details about the GHG reductions, GHG abatement and economic calculations. It also asks for information about the project budget, plan, risks, and team qualifications.

6.3.1 Submission

Once requested to submit an FPP an Applicant may proceed as follows:

1. “Full Project Proposal” on the top menu bar of ERIMS.
2. Select “Expanded Technologies Pilot” from the drop-down menu under “Calls”.

3. In ERIMS you will be asked for Project information such as Project title, Facility location, Project start and end date and Lead Applicant contact details.
4. Download and complete the FPP Form, then upload it as a PDF. The Form includes instructions in red and space for Applicants to fill in text, graphics, tables etc. When the Applicant has completed the form, the red instructions can be deleted.
5. Up to five supplemental documents can be included in the FPP Appendices section, such as specification sheets, GHG quantification spreadsheets, etc. Please keep the additional information reasonable and limit strictly to relevant information. ERA reserves the right to not include attachments if they are excessive and anymore than five documents will not be included as part of the evaluation unless they are specifically requested by ERA as part of the EOI review and feedback.
6. Press submit and your FPP will be locked while ERA conducts its review.

Tip: If you need help or have any questions while completing an FPP, please contact ERA through the ESB contact centre and ask for Application Assist - our Application Team is happy to assist.

6.3.2 Evaluation

Once an FPP is submitted it will be locked for editing and sent to the ERA Review Panel for consideration. The Review Panel will evaluate and score the FPP based on the evaluation criteria set out in Section 7.2.

6.4 Contribution Agreement

Applicants whose FPP's are selected to proceed must enter into a Contribution Agreement with ERA which will address the Project scope, deadlines, work plan, milestones, deliverables, performance targets, payment schedule, reporting requirements, terms of funding, and other aspects related to ERA's funding.

6.5 Project Milestones

Throughout the Project there may be up to three Milestones to complete, which will be confirmed and finalized in the Contribution Agreement. These include:

- 1) Pre-construction documentation – this may only be necessary for some Projects following the FPP approval and could include but is not limited to initial assessments, technical information on parameters that require subsequent design or engineering, additional modelling, or analysis, etc.
- 2) Mid-Project report – for complex Projects or Projects that will be greater than 6 months, a mid-Project report will be required including progress to date, budget update, next steps, and timeline confirmation.
- 3) Completion Documentation – this is required for all Projects as defined in Section 6.8.
- 4) Post-Project reporting – this is for ERA to learn about how the project is performing 2 years from project completion, to learn if there has been an increased interest from the market, to confirm if there are any changes or updates to parameters affecting the GHG emissions reductions, etc. This is required for all Projects

If the Contribution Agreement does not include either the Pre-construction or Mid-Project milestones, no actions are required, and the Project can proceed to the next step.

6.6 Project Implementation

Once the Contribution Agreement is negotiated and signed, the Project construction and implementation can commence. This includes, but is not limited to:

- Submission of any documentation for any of the milestones through ERIMS;
- Proceeding with the purchase of any equipment, products etc. required for the Project; and
- Project installation and construction.

6.7 Change Requests

Once a Contribution Agreement is finalized, the Applicant may initiate and request any changes required to their Project by submitting a Change Request form to ETP@esbprogram.ca, available in ERIMS or on the website. ERA will consider each Change Request on a case-by-case basis at ERA’s sole discretion.

A Change Request must be requested at least 60 days prior to Project Completion Date. Any change in scope is subject to ERA approval and may include the following:

- An increase in the quantity of Technology System(s) listed in the FPP, where the estimated incentive in the FPP increases by 10 per cent or less,
- A decrease in the quantity of Technology System(s) to be installed,
- A change to the model number of a Technology System(s) provided that the new model number meets the same specifications as provided in the FPP, or
- A Project Completion Deadline extension.

Where approved, ERA will confirm acceptance of the Change Request and issue a Change Approval Notice setting out the accepted amendments.

For clarity, ERA will not provide funding for any Technology System(s) that is not listed in an FPP or contained in an approved Change Approval Notice. Applicants must receive their Change Approval Notice *prior* to installation of any Technology System(s) that differs from the approved FPP. If a Change Request is granted, the costs associated with the additional Technology System(s) will be revised accordingly in the Applicant’s Total Eligible Expenses.

ERA does not guarantee funding greater than the amount outlined in the Contribution Agreement.

6.8 Project Completion & Verification

Once all installations associated with the Project are complete and in commercial operation, the Applicant will submit all required Project Completion Documentation through ERIMS which includes, but not limited to the following:

- A copy of all receipts and invoices for all installed Technology System(s) (including installation costs), clearly showing dates Eligible Expenses were incurred,
- Supporting documentation for all Eligible Expenses indicating the itemized amounts and dates expenses were incurred or paid,
- Proof of address of the Eligible Facility e.g., utility bill in the name of the business or business registration document showing the address of the Facility,
- A list of all other third-party funding received by the Applicant in connection with the Project
- A specification sheet for each Technology System(s),
- All technical documents or monitoring as required in the Contribution Agreement for technical review and approval,
- Photographs of the replaced and new Technology System(s),

- Any other documentation reasonably required under the Contribution Agreement or upon request.

Note: There may be other requirements depending on the specific Project. These will be stipulated within the Contribution Agreement.

The Project Completion Documentation must be submitted on or prior to the Project Completion Deadline as defined within the Contribution Agreement.

All Projects will require a virtual or in-person site visit as part of ERA’s review and verification process, as described in Section 12 below.

6.9 Payment

Once an Applicant submits their required Project Completion Documentation, ERA will review and determine if it is acceptable to ERA at its sole discretion. Once approved, ERA will remit payment to the Lead Applicant for acceptable expenses. Payments will be made through a secure Electronic Fund Transfer (EFT) based on banking information received from the Lead Applicant through ERIMS. Where an EFT is not possible, a cheque will be mailed to the Lead Applicant. The general payment process is as follows:

1. Lead Applicants will receive a notice approving the incentive payment,
2. Lead Applicants will receive an automated notification to setup an account for EFT payment,
3. Lead Applicants will securely enter banking information,
4. Funds will be issued to the Lead Applicant’s bank account within 4 weeks after their banking information is provided to ERA and the Lead Applicant will be notified when this occurs.

7. Evaluation and Selection

Projects will be evaluated by a group of internal and external experts based on the Project’s potential to achieve the overarching goals of ERA’s mandate and the ESB Program, namely, to reduce GHG emissions and grow Alberta’s economy by accelerating the adoption of cost- and energy-saving Technology System(s). Each Proposal is assessed using the evaluation criteria below to determine the proposed Project alignment with ERA’s mandate. Applicants are encouraged to consider these weightings when developing their applications. Further guidance and instructions are provided within the EOI and FPP forms.

Funding under ETP will also depend on the quality, completeness, and comprehensiveness of the submitted Proposal. In this regard, “quality” means the merits of the Proposal in terms of both: a) the potential for impacts based on the following assessment criteria, and b) how well the criteria are addressed, including completeness and clarity.

Please note that any application missing required information or containing errors or omissions such that any results are deemed to be invalid or incomprehensible, may be automatically rejected by ERA, in its sole discretion, without further evaluation or recourse.

7.1 EOI Evaluation Criteria

The EOI will be evaluated based on a pass or fail of the criteria described in the table below. EOIs must receive a pass on all criteria to proceed.

Criterion	Description
Participant Eligibility	Lead Applicants and Project Partners will be evaluated whether they meet the criteria set out in Section 2.2.
Facility and Project Eligibility	All Facilities included in the proposed Project will be evaluated whether they meet the criteria set out in Section 2.3. The proposed Technology System(s) will be evaluated whether they meet the criteria set out in Section 2.4. <i>Note: 2.4e and 2.4f to be evaluated in separate criteria.</i>
Project Timelines	The Project will be evaluated based on the timelines and Project scope to ensure it will be completed by March 31, 2023.
Project Budget and Funding Request	The budget will be assessed if it corresponds to the Project scope and that the funding request is a maximum of 50 per cent of the Total Project Eligible Expenses or a maximum as laid out in Section 3.
GHG Reductions	The Technology System(s) will be evaluated based on the demonstrated potential to reasonably achieve the minimum GHG reductions described in Section 2.4e.
Economic and Additional Benefits	Financial benefits will be evaluated whether based on if there is a positive Return on Investment as described in Section 2.4f. Additional benefits will not be taken into consideration during the evaluation.
Market Potential	The Project will be assessed based on whether the Technology System(s) can be applied to multiple Facilities or if there are multiple Projects are planned of similar scope.

7.2 FPP Evaluation Criteria

All FPPs are evaluated based on the weighted criteria in the table below.

Criterion	Description	Weight
Technology Description	Proposals will be evaluated on the comprehensiveness of the description of the base case technology and proposed Technology System(s), the appropriate selection and definition of the base case, and the confidence in the high-level GHG model approach, assumptions and supporting documentation.	20
Budget and Funding Request	Proposals will be evaluated on the quality and comprehensiveness of the proposed budget and detailed narrative in support of the funding request. Evaluations will consider the cost-effectiveness and administrative costs required for ERA to review, verify, and support the Project successfully through the ETP.	35
Technology Potential	Proposals will be evaluated on the Technology System's market potential in Alberta, the Project's applicability, and eligibility within ETP, and the Technology System(s)	35

Criterion	Description	Weight
	ability to deliver cost-effective GHG emission reductions with a good Return on Investment.	
Project Management & Additional Benefits	Proposals will be evaluated on the work plan, timeline, Project risks and related mitigation strategies. In addition, the qualifications and ability of the Project team to successfully carry out the Project within the timelines will also be considered. Additional benefits will not be taken into consideration during the evaluation.	10

Tip: evaluation and scoring will be balanced with the scale, complexity, and amount of funding requested based on each Proposal submitted (e.g., complex Projects requesting larger funding amounts may require more detail as the Project may require additional technical detail).

8. Environmental Attributes

As with the current ESB Program, participation in ETP requires a transfer of ownership to ERA of all environmental attributes, including but not limited to carbon offset credits, and any environmental products that are created or otherwise arise from the Project regardless of jurisdiction. In addition, ERA retains the right to adjust Program guidelines in accordance with amendments to the Government of Alberta’s legislation, policies, or protocols surrounding GHG emissions, carbon accounting or the carbon offset system, or otherwise at ERA’s sole discretion.

9. GHG and Energy Use Quantification

Each Proposal requires preliminary GHG and energy use quantification, including a base case of the current Technology System(s) that represents the pre-Project ‘business-as-usual’ situation. This quantification must include the current estimated annual energy consumption, and corresponding annual GHG emissions, by energy source. The base case information is required to accurately determine the total benefit of the Project based on the corresponding energy efficiencies achieved. For both the base case and the proposed Project please use and include the following:

- For emissions factors, please use 0.57 tCO₂e/MWH for on-site grid electricity and 0.001939 tCO₂e/m³ (equivalent to 0.05185 tCO₂e/GJ) for natural gas combustion. For all other emissions factors, please refer to the Government of Alberta Carbon Offset Emission Factors Handbook, Version 2.0 (November 2019), [available online](#).
- Use metric tonnes units (i.e., 1,000 kg).
- Resources such as the [International Performance Measurement and Verification Protocol](#) (IPMVP), [The American Society of Heating, Refrigerating and Air-Conditioning Engineers](#) (ASHRAE), [World Resources Institute Greenhouse Gas Protocol](#) or [Alberta Offset Protocols](#) may provide useful guidance for the approach. Applicants should select an approach that is suitable to the proposed Technology System(s) (i.e., is sufficient in rigour to confidently and defensibly estimate emissions reductions given the complexity and mechanisms of the proposed Technology System(s)).
- To confirm that your project is under the minimum \$200/tonne GHG emissions abatement rate, please calculate and provide the project estimated abatement rate using the following calculation:

- total ERA funding request (\$) divided by the total emissions reductions (tonne of CO₂e) estimated to be achieved over the project life. Note: lifetime GHG emissions reductions are annual GHG reductions multiplied by the operational life of the proposed Technology System(s).
- Outline the Technology System(s) operational life span in years.
- Provide a description of calculation approach, sample calculations and/or output from modelling software.
- Document any associated assumptions, equations, rationale, and/or references as applicable.
- Description of the scope and boundary applied to Project emissions calculations. As general principle, the boundary should be selected such that the Project and the base case can be compared equally (i.e., they both deliver the same quantity/quality of output or service).
 - For technologies where the output types are different between the proposed and base case Technology System(s), the boundary of the base case should be expanded to other applicable systems within the Facility such that the output of the base case matches the output of the proposed Technology System(s)
 - Example: I have a standard furnace and heating system using electricity currently (base case) and my proposed Project is CHP, which provides both heat and power. For this CHP Project, the base case should include both heat productions and grid electricity within the boundary so that it can be compared equally to the new Technology System for emission calculations.
 - The base case should also be selected to match the scale of useful output from the proposed Technology System(s).
 - Example: the total useable heat output of a base case furnace and high efficiency furnace must be equal prior to comparing reductions in energy inputs (fuel).

10. Economic Benefits

Include the economic benefits of the project and Technology System(s), including the estimated total project cost, an estimate of the total financial savings, and the Return on Investment (ROI) of the proposed Project. Provide a description of the calculation approach, sample calculations and any assumption or rationale as applicable.

Parameter descriptions:

- Total Project Cost: the sum of all eligible expenses until system is fully operational.
- Project operational life: the total number of years the Project is anticipated to be in operation. Should match total from project operational life value in Section 3.
- Routine maintenance costs (annualized): the estimated average costs per year of all required routine maintenance - OR - the total lifetime required maintenance costs divided by total operating years (annualized).
- Annual energy cost savings (if applicable): The average estimated value of utility energy saved over a typical year. Please use the total annual energy savings by energy source from section 3 multiplied by an assumed energy costs for each energy source. Note the assumed energy cost rates in the assumptions.
- Annual cost savings from avoided GHG emissions (if applicable): The average estimated value of avoided GHG emissions over a typical year. Please use the total annual GHG emissions reductions from section 3

and note the assumed value of carbon price and applicable regulation in assumptions. Leave blank if not applicable.

- Annual cost savings from any other factors (if applicable): e.g., avoided maintenance costs. If the Project provides any other cost savings relative to the base case, provide the estimated value of the average savings per year (or total lifetime cost savings annualized). Leave blank if not applicable.
- Net annual cost savings: the sum of all cost savings per year from the table above minus any routine maintenance costs per year from the table above.
- Simple pay back period: the total up front costs from the table above divided by the net annual cost savings.

Return on Investment Calculation:

- Simple return on investment over project life calculated using the following equation:

$$\frac{[(\text{net annual cost savings} * \text{project operational life}) - \text{Total Project Cost}] / \text{Total Project Cost}}$$

Job Creation

The FPP requires a high-level quantitative estimate for the Project impact on job creation. Please report this in job-years, which is the number of Full Time Equivalent (FTE) positions held over a one-year period. For example, 1 FTE for 5 years equals 5 job years or two half-time positions for 1 year is 1 job year. Consider and indicate in the FPP the jobs for all service activities such as design, installation, and operation. Job impacts resulting from the purchase of equipment are out of scope for this analysis and evaluation.

11. Additional Benefits

Additional benefits are not evaluated as part of the EOI but will be taken into consideration during the FPP evaluations. These benefits allow ERA to gain a full picture of the what the Technology System(s) can provide in addition to GHG reductions and financial benefits. Benefits can include but are not limited to environmental benefits such as air or sound quality, other GHG benefits such as methane reductions, or non-environmental benefits such as increased safety benefits.

As the energy sector in Canada evolves and becomes more diverse there is a continued desire for new perspectives and ideas that reflect the diversity in our society. In furtherance of these goals, underrepresented groups have to the potential to provide insights that may otherwise not exist. Underrepresented groups are people marginalized by barriers based on age, ethnicity, disability, economic status, gender, nationality, race, sexual orientation and gender identity, etc. This includes, but is not limited to, people of color, people with disabilities, people who are LGBTQ, people of Indigenous descent (First Nations, Inuit or Métis), etc.

Currently in the energy efficiency sector: 31% of jobs are held by women, 5% are of Indigenous descent, and 18% identified as a visible minority group (NRCan Energy Fact Book 2021-22). ERA recognizes the importance of information gathering and collaborating with other like organizations to enable participation by all eligible Applicants, including underrepresented groups. If you are comfortable, there is a section in the EOI and FPP where Applicants can include information relating to underrepresented group identification or whether they have a Diversity, Equity, and Inclusion strategy. ERA is gathering this information to inform our call program designs and refine our engagement strategies. This information will not be used in our evaluation of a particular project during the application process.

12. Measurement and Verification

ERA will undertake various quality control procedures to ensure that Projects are completed in accordance with program expectations and in accordance with the terms of the Contribution Agreement, including random virtual or on-site visits for completed Projects. ERA may contact Applicants to ensure that Technology System(s) were installed as contemplated and are performing as expected. Applicants may also be required to participate in surveys, studies, or audits.

If contacted by ERA or its agents, the Applicant may also be required to:

- Answer questions and complete surveys related to their participation in ETP,
- Provide reports or supporting documentation related to the Project,
- Provide on-site access to verify the Technology System(s) was installed and provide photographs,
- Track the performance of the Technology System(s) and provide the results to ERA,
- Verify that the Eligible Expenses were calculated correctly.

ERA will endeavour to obtain supporting documentation digitally and comply with all provincial COVID-19 restrictions in place at the time of a quality control visit.

13. Reporting and Data Sharing

Throughout the Project, including during submission of Project Completion Documentation, additional reporting may be required as specified in the Contribution Agreement.

All Project information including reports, submissions and related documentation may be used publicly by ERA in its sole discretion.

14. Frequently Asked Questions (FAQs)

A set of FAQs are provided on the [ETP website](#) and will be updated from time to time.

15. Contact Information

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Phone: 1-844-407-0025

Email: ETP@esbprogram.ca

Local (403) number: 403-778-9467

Local (780) number: 780-306-8376

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