ALBERTA **INNOVATES**

CLEAN RESOURCES DIVISION
TIER Economic Recovery Program
APPLICATION GUIDE

CLEAN RESOURCES OVERVIEW

Clean Resources helps technology developers and industry clients accelerate technology development and deployment, grow their businesses, and enhance the competitiveness of the resource sector. We provide scientific and technical insights to the Government of Alberta (GOA) energy and natural resource development, agriculture, economic diversification, emission reduction, and water/land policies. Clean Resources has five technology portfolios which are described in further detail in the TIER Economic Recovery Program Guide ("Program Guide"). Together, our efforts are directed to sustain and grow Alberta's oil & gas, agriculture, forestry and clean technology industries, add value to enhanced and new energy products, reduce greenhouse gas emissions, and to protect Alberta's water and land resources.

Applications to the TIER Program funding opportunity must align with AI Clean Resources portfolio / program focus areas) and/or contribute to the four emerging technology focus areas (see TIER Program Guide for more details) while also contributing to the following criteria: (i) GHG emissions reduction or enabled future reductions; (ii) increased Alberta industry competitiveness; (iii) creation or maintenance of skilled jobs within Alberta; (iv) enabled future economic growth; (v) TRL 4-7 at project commencement; (vi) maximized industry contribution where possible.

PURPOSE OF THIS GUIDE

This guide is intended to provide guidance for completing *Phase 1 – Engagement and Intake* and *Phase 2 – Detailed Proposal* for TIER Program applications. *Phase 2 – Detailed Proposal* is by invitation only and access to the Detailed Proposal online form will be given once the Clean Resources Continuous Intake Form ("Intake Form") has been reviewed and approved to advance to Phase 2. General information for the TIER Program and the review process can be found in the Program Guide. This Guide is also intended to provide descriptive information to assist the applicant in completing the online application form and to understand the 6 Evaluation Criteria. The applicant is expected to provide information in sufficient detail to allow the evaluation team to adjudicate the project. Please follow the requirements/instructions carefully while at the same time being concise in substantiating the project's merits.

PHASE 1 – ENGAGEMENT AND INTAKE

Contact

To start the application process, the applicant may choose to contact a Clean Resources Program Manager to assess if the project scope meets the minimum requirements of aligning with the TIER Program. Use

Program links provided in the Program Guide to find the appropriate Clean Resources contact information. Applicants may also choose to simply register with our online portal and proceed with the Intake application.
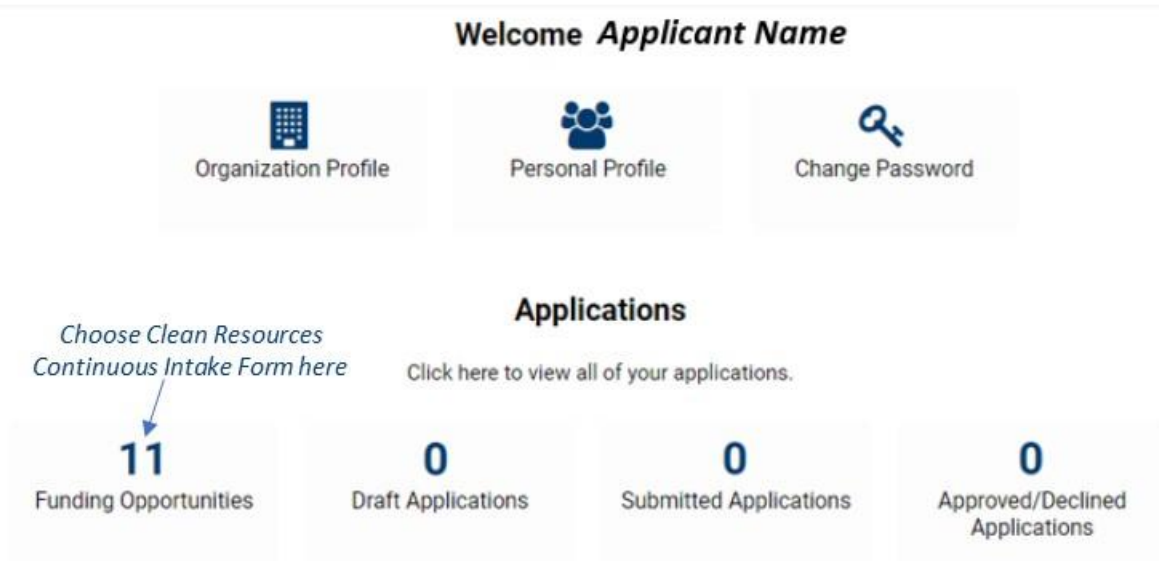

Figure 1. Home Page View of Alberta Innovats Online Application Portal

Register

The applicant will begin the online application process by registering on the [Alberta Innovates Application Portal](#).

Access, Complete and Submit Intake Form

Once registration is complete, the applicant will be able to access the *Clean Resources Continuous Intake Form* within the *Funding Opportunities* tab on the dashboard (see Figure 1). If there are issues accessing the form, please contact the TIER Program contact listed at the end of this document.

The Intake Form will consist of the following tabs. The directions below are additive to the information provided within the online application, so be sure to read and follow all instructions within the online application and this guide.

Instructions and Disclaimer

Review the Instructions and Disclaimer, the Freedom of Information and Protection of Privacy Act, and the Publication of Non-Confidential and Aggregate Information by Alberta Innovates. If there are any questions, please contact TIER Program contact listed at the end of this document.

Eligibility

Before starting an application, be sure that the TIER Program Guide is reviewed, and the proposed project is aligned with the requirements of the Program.

Program

Several Clean Resources Programs will be identified, choose "**TIER Program**" from the drop-down list.

Applicant and Representative Information

The term Applicant applies to the <u>organization</u> submitting the application, NOT the person completing the form. The person completing the form is considered the Representative and their information will be captured in the *Representative Information* tab.

Non-Confidential Summary

When preparing the Non-Confidential Project Summary section of the applications, please compose it using a third-person narrative format.

Project Overview

In the Project Overview tab, **when providing an overview of the project**, use the following headings:
- **Project Objective:** State the objectives of the project.
- **Project Methodology:** State the methodology that will be used to meet the project objective(s).
- **Project Deliverables and Outcomes:** Discuss the key milestones, deliverables and anticipated outcomes.

When **completing the Project Summary Table**, follow the directions in the online application.

Attachments

Intake Phase attachment page limit = 5 pages. Attachments accompanying the Intake Form are encouraged, however, exhaustive information / data is not required at this stage. Examples of the types of attachments expected at this stage are pictures of the innovation and / or its application, links to relevant publicly available information, results from previous phases of development and / or implementation, etc.

Consent

Review the Consent and Declaration. For further information on Alberta Innovates' Trusted Partners, refer to the TIER Program Guide. If there are any questions regarding the Information Sharing Consent, please contact your Project Advisor.

Equity, Diversity and Inclusion, and Feedback

The Equity, Diversity and Inclusion (EDI), and Feedback tabs are optional and are not included in the review package so any information shared will not impact the evaluation of the application. Further information on EDI can be found in the Program Guide.

Intake Form Review

Once the Intake Form is submitted, a TIER Program Advisor will review the information provided and in consultation with the Clean Resources Management Team will determine if the proposed project will be invited to submit a Detailed Proposal. All projects must be aligned with TIER Program and Clean Resources priorities, including the 2030 Innovation Targets, as shown in Tables 1 & 2 of the Program Guide.

If the proposed project is invited to submit a Detailed Proposal, a TIER Program Advisor will authorize release of the online TIER Program Detailed Proposal application form. The Detailed Proposal Application form will be available by selecting the *Draft Applications* icon (Figure 1).

PHASE 2 – DETAILED PROPOSAL

Please follow the requirements / instructions provided in the online application and in the next sections. Please provide comprehensive responses for each section while at the same time being concise in substantiating the project's merits. If there are questions regarding criteria, please reach out to your Project Advisor for support.

Information submitted in the Intake Form will automatically be populated into the same tabs in the Detailed Proposal (i.e. *Instructions and Disclaimer, Eligibility, Program, Application and Representative Information, Non-Confidential Summary, and Project Overview*). The *Consent* tab will need to be completed for the Detailed Proposal.

Evaluation Criteria

When completing the Evaluation Criteria, consider both the questions and guidance provided in the online form and the supplementary guidance provided below.

1. Innovation Opportunity

Proposals will be evaluated on the strength of the innovation to address the larger problem/challenge that an industry or sector is facing. Innovation Opportunity can exist within the following stages, technology-related applied research, development, integration, and deployment.

When **explaining and quantifying the problem/challenge** (600 words), consider the following:
- **Problem/Challenge:** Describe the context and scope of the problem/challenge.
- **Drivers:** Describe the key drivers for developing a solution.
- **Gap:** Explain the innovation gap that is being addressed.
- **Current Initiatives:** Describe any current actions/initiatives currently addressing the problem.

When **describing the innovation** (2500 words), consider the following:
- **Innovative Solution(s):** Describe the innovation, what it does, and how the application of the innovation will provide a solution to the problem/challenge. Discuss the scientific and/or technical basis of the innovation.
- **Current Status:** Describe results of previous research, studies, and/or development and what has been achieved to date.
- **Process Flow and Mass Balances:** If appropriate, provide a process flow diagram, and energy and mass balances as an attachment.

When **identifying the Technology Readiness Level of the innovation**, follow the directions in the online application.

When **completing the Intellectual Property** section (150 words each), follow the directions in the online application.

2. Market Opportunity

Proponents must identify the market opportunity, including the size of addressable market(s) and alignment of the innovation with market needs. The competitiveness of the proposed solution,

including advantages relative to existing and nascent technologies will be evaluated. Opportunities for collaboration must be described.

When **describing the target market** (800 words), consider the following:

- **Problem-Solution Fit:** Identify how the solution clearly solves an identified, high-priority end-user problem in a specific market segment or application.
- **Markets:** Quantify the scope and scale of the market for the solution (i.e. sector, subsector and geography), including total addressable market, serviceable addressable market and provide assumptions/calculations to validate the data.
- **Product-Market Fit:** Outline the strategy to capture market share, including exploiting the competition's weaknesses, securing supply chains, manufacturing capability, and channels to reach and engage with customers.

When **describing and comparing the innovation to competitors** (1500 words), consider the following:

- **Competitive Advantage:** Compare the proposed innovation with the other dominant/leading technologies in the area and quantify how this innovation differs from, and is better than, the others. If appropriate, use a competitive analysis table to summarize the key strengths and weaknesses of the proposed innovation alongside those of the competing technologies; consider developing technologies as well as incumbent technologies.
- **Synergies:** Identify potential synergies between this innovation and those carried out by competitive organizations or other collaborators.
- **Collaborators:** Explain the relationships with collaborators, end-users and competitors to advance the proposed innovation.

When **describing the value proposition** (500 words), follow the directions in the online application.

When **describing how interest has been validated** (500 words), follow the directions in the online application.

3. Proposed Commercialization Pathway

Proposals will be evaluated on the strength of the commercialization pathway that will lead to application or use of the innovation in Alberta.

When **describing the pathway** (600 words), consider the following:

- **Commercialization Pathway:** Explain the pathway and how the project will lead to commercialization in Alberta (own / operate, sell to market, service during operations, license technology to 3rd party, develop and sell company, etc.). The pathway will need to ensure that the remaining business model components are planned or in place, such as obtaining the right suppliers, strategic partners, in-house technical and business operation capabilities / systems, and strong net positive revenue generation.
- **ROI Expected:** Describe the projected long-term return on investment (ROI) and the anticipated timeline.

When **describing the major risks** (750 words), focus on addressing the pathway risks as project specific risks will be addressed later in the application.

When **describing the resources** (300 words), follow the directions in the online application.

4. Project Overview and Project Work Plan, Budget and Team

Proposals will be evaluated on the strength of the project plan, including clear descriptions of milestones / tasks, demonstration that the tasks are additive to achieving the overall objectives with clear success metrics, and the costs are reasonable. In addition, proposals will be evaluated on the Applicant's financial ability to carry out the proposed project, the level of funding that is confirmed or in discussion from organizations other than Alberta Innovates and the justification for seeking Alberta Innovates funding. Proposals will also be evaluated on the expertise and capability of the project team to carry out the project and successfully advance the innovation / knowledge as proposed.

In the *Project Overview* tab, **when providing an overview of the project**, consider using the following headings:

- **Project Objective:** State the objectives of the project.
- **Project Methodology:** State the methodology that will be used to meet the project objective(s).
- **Project Deliverables and Outcomes:** Discuss the key milestones, deliverables and anticipated outcomes. A Gantt chart can be attached during the final stage of the application.

Note there are two text boxes (800 & 2000 words) available for you to complete this section. You can follow the online instructions or use the suggestions above to order your responses to this section.

When **completing the Project Summary Table**, follow the directions in the online application.

In the *Project Work Plan, Budget and Team* tab, download, complete and attach the Alberta Innovates Work Plan and Budget Workbook ("Workbook").

When **completing the Workbook**, consider the following:

- **Work Plan:** Identify the key milestones and associated tasks, duration and costs needed to complete the project. A final milestone should include a summary of how the project results will be disseminated to key stakeholders. If applicable, discuss how results have been shared with stakeholders in the past.
- **Budget:** Provide a detailed budget including all expenditures such as capital, materials and supplies, contractors and key vendors, travel, and personnel. The evaluation of the budget is based primarily on cash funding contributions, but in-kind contributions will also be considered.
  - ○ **Ineligible Expenses:** Include any project expenses that are ineligible but may indicate additional investment in the project. A list of ineligible expenses can be found in the Process Guide.
- **Revenue Forecast:** Co-Applicants are not part of the Clean Resources programs so this line within the Revenue tables can be ignored. List all project partners and for those providing cash and in-kind funds, indicate the amounts and status of funds being committed to the project.

When **providing justification for the project budget** (600 words), also discuss any ineligible project expenses. NOTE: Costs directly attributable to the project spent prior to Alberta Innovates approval may be included in calculations of total eligible project costs for this Program.

When **completing the project team table**, include the following:
- **Team Members and Partners:** Identify level of commitment from team members and partners, as well as additional capacity provided by strategic partners to support commercialization or mobilization of the solution.

When **describing the governance structures** (300 words), consider the following:
- **Champion:** Identify the senior management champion for the project, their role within the project and demonstrate that the organization is fully committed to the success of the project.
- **Management Structure:** Describe the management approach, the management structure, areas of responsibilities, and any other considerations required to achieve the project's objectives, milestones and deliverables.

When **describing the project partners** (300 words), consider the following:
- **Partners:** Discuss partners involvement in the project and for any unconfirmed cash contributions, discuss the remaining barriers and timelines to achieve confirmation. Letters of support from all partners strengthens the application so be sure to attach letters of support at the end of the application process.

When **describing the required resources** (600 words), follow the directions in the online application.

5. Project Risk Analysis and Mitigation

Proposals will be evaluated on the identification of key project risks and the mitigation strategy and status to support the achievement of short and long-term goals of the project.

As you complete the Project risks table, consider the following:
- **Key Project Risks:** Identify the key risks that have the potential to adversely affect the project achievability. Describe the probability and impact of the risks to the project.
- **Mitigation Strategy:** Clearly describe the risk mitigation strategies and how they support the achievement of short and long-term goals of the project.

6. Impacts

Proposals will be evaluated on the potential for economic, environmental and social benefits in Alberta during the project and once the innovation is commercialized / knowledge is mobilized. Provide a narrative within the online application and complete the Performance Metrics tables within the Workbook.

In the Workbook, **unhide the *Performance Metrics* and *Metrics Definition* tabs** and complete the following tables:

- **Clean Resources Metrics:** From the drop-down menu, choose all Clean Resources Metrics that are applicable to the project. Include targets for both the project and once the innovation is commercialized / knowledge is mobilized. Definitions and guidance for each metric is provided in the *Metrics Definition* tab.
- **Program Specific Metrics:** From the drop-down menu, choose the Program Specific Metrics that are applicable to the project. Include targets for both the project and once the innovation commercialized / knowledge is mobilized. Definitions and guidance for each metric is provided in the *Metrics Definition* tab.
- **Project Success Metrics:** Identify key metrics that will be used to assess the success of the project in advancing towards the stated objectives and desired outcomes.

When **describing the economic impacts** (600 words), consider using appropriate headings and the following job creation aspects:

- **Job Creation and Developing Talent:** Provide estimates of new employment opportunities resulting from the project and proposed commercialization pathway. Please indicate the number of employment positions. Provide details of existing highly qualified and skilled personnel (HQSP), and an assessment of the project's and pathway's expected contribution to the training and retention of HQSP in Alberta, and the attraction of HQSP from outside the province. **NOTE:** HQSP refers to those likely to seek a career in science, research, technical, operations, and management activities in Alberta in the next 5 to 10 years.

When **completing the Environmental Impacts section** (600 words), consider using headings such as GHG Impacts, Water Impacts, Land Impacts, Waste Impacts, etc.

When **completing the Social Impacts section** (600 words), consider using headings appropriate to the project.

The following is required for each Impacts section:

- **Quantitative Assessment:** Provide a quantitative evaluation of the impacts for the project and for a case that assumes the innovation is commercialized / knowledge is mobilized. Please include the methodology and assumptions used to arrive at this evaluation.
- **Benefits Projection:** Indicate when the benefits will start to accrue from the project and once the innovation is commercialized / knowledge is mobilized. Also indicate the duration of the benefits, and an assessment of scaling over time.

Attachments

Supporting documents referenced in the application to be attached, should include:

- Figures and tables
- Gantt Chart
- Resumes for at least two of the key project team members
- Letters of Support from project partners

Excel workbooks to be attached, should include:

- Alberta Innovates Work Plan and Budget Workbook

Consent

Review the Consent and Declaration. If you have any questions, please reach out to the Alberta Innovates contact information provided at the end of this guide.

Equity, Diversity and Inclusion, and Feedback

The *Equity, Diversity and Inclusion, and Feedback* tabs are optional and are not included in the review package so any information you share will not impact the evaluation of your application. Further information on EDI can be found in the Program Guide.

TIER PROGRAM CONTACT

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