
CLEAN RESOURCES

APPLICATION GUIDE: CONTINUOUS INTAKE PROCESS

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) on energy and natural resource development, agriculture, economic diversification, emission reduction, and water/land policies.

Clean Resources has five innovation portfolios that utilize a continuous intake process and targeted calls for proposals. This guide pertains to the continuous intake process.

- **Advanced Hydrocarbons** supports economic, environmental, and diversification opportunities in Alberta's oil & gas sector. The Advanced Hydrocarbons portfolio consists of two programs: **Cleaner Hydrocarbon Production** and **Innovative Hydrocarbon Products**.
- **Clean Technology** supports diversification of Alberta's economy through the development of clean technology. The Clean Technology portfolio consists of three programs: **Renewable and Alternative Energy**, **Bioenergy**, and **Carbon Capture and Utilization**.
- **Environmental Innovation** supports economic development, environmental performance and healthy communities through investments in knowledge and technology gaps in two major programs: **Water Innovation Program** and **Land and Biodiversity**.
- **Smart Agriculture and Food** invests in research and innovation **supporting data driven decision making** and automation for growth of Alberta's agriculture and food sector. Supporting development of a network of **Smart Farms** facilitates validation and demonstration of emerging technologies as well as education of the next generation of Alberta's agribusiness operators.
- **Bioindustrial Materials** supports economic development and diversification by investing in **greener products and processes** using Alberta biomass (e.g. Alberta aspen utilization, value-added biomass, green construction). This portfolio supports the agriculture and forestry sectors to optimize sustainable resource use and develop new revenue streams for byproducts and residuals.

Together, our efforts are 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 protect Alberta's water and land resources.

PURPOSE OF THIS GUIDE

This guide is intended to provide guidance for completing *Phase 1 – Engagement and Intake* and *Phase 2 – Detailed Proposal* for innovation-commercialization and knowledge generation projects. Reminder that the *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. Refer to the [Clean Resources Program Guide: Continuous Intake Process](#) (“Program Guide”) for a definition of innovation-commercialization and knowledge generation projects and further details on the review process.

PHASE 1 – ENGAGEMENT AND INTAKE

Contact

To start the application process, contact a Clean Resources Project Advisor (“Project Advisor”) to assess if the project scope meets the minimum requirements of aligning with a Clean Resources program focus area that accepts continuous intake applications and with the 2030 Innovation Targets. Use the program links above, to find the appropriate Project Advisor’s contact information.

Register

Once an initial discussion between the applicant and the Project Advisor has occurred and it has been determined that the project scope meets the minimum requirements, the applicant will begin the 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 Intake Form within the *Funding Opportunities* tab on the dashboard. If there are issues accessing the form, please contact your Project Advisor.

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 your Project Advisor.

Eligibility

Before starting an application, be sure that the [Program Guide](#) is reviewed, and the proposed project has been discussed with a Project Advisor.

Program

Based on your conversations with a Project Advisor, select the appropriate program.

Applicant and Representative Information

The term Applicant applies to the [organization](#) 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

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 [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, the Project 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 Government of Alberta's priorities, including the 2030 Innovation Targets, as shown in Table 2 of the [Program Guide](#), and Alberta Innovates' strategic and business priorities. Alberta Innovates' Business Plan, found [here](#), provides further information on the strategic and business priorities.

If the proposed project is invited to submit a Detailed Proposal, the Project Advisor will authorize release of the online innovation-commercialization or knowledge generation Detailed Proposal application form.

PHASE 2 – DETAILED PROPOSAL

As highlighted in the [Program Guide](#), the continuous intake process focuses on innovation-commercialization and knowledge generation projects with funding requests split into low dollar applications of \$200K or less (“low dollar”) and high dollar application of over \$200K (“high dollar”). The low dollar and high dollar funding applications for both innovation-commercialization and knowledge generation projects will be evaluated using six Evaluation Criteria. The key difference between the low dollar and high dollar funding applications is the level of detail that is expected within each criterion. This is emphasized through a word count feature that is applied to each question within the criterion.

Please follow the requirements / instructions provided in the online application and in the next section. 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.

NOTE: Once a draft of the online application is completed, use the *Generate Application PDF* button at the top of the online form. Share the PDF of the draft application along with the excel workbooks discussed below with your Project Advisor for review. Once your Project Advisor has validated that the application meets submission criteria, the applicant will be instructed to submit the application online.

Evaluation Criteria

When completing the Evaluation Criteria, consider both the questions and guidance provided in the online form and the supplementary guidance provided below. There are three Evaluation Criteria that differ between innovation-commercialization and knowledge generation projects as demonstrated through the columns below. For the remaining three Evaluation Criteria that are same for both types of projects “innovation / knowledge” or “innovation is commercialized / knowledge is mobilized” is used to reference innovation-commercialization or knowledge generation, respectively.

Innovation-Commercialization

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**, consider the following:

- **Problem / Challenge:** Describe the context and scope of the problem / challenge.

Knowledge Generation

1. Opportunity

Proposals will be evaluated on the strength of the opportunity to address the larger problem / challenge that an industry or sector is facing. This opportunity may support knowledge-driven applied research, development, and implementation.

When **explaining and quantifying the problem / challenge**, 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**, 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, 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**, consider the following:

- **Problem-Solution Fit:** Identify how the solution clearly solves an identified,

- **Drivers:** Describe the key drivers for developing a solution.
- **Gap:** Explain the knowledge gap that is being addressed.
- **Current Initiatives:** Describe any current actions / initiatives currently addressing the problem.

When **describing the opportunity**, consider the following:

- **Innovative Solution(s):** Describe the innovative knowledge solution and how the application of the knowledge generated will provide a solution to the problem / challenge. If applicable, discuss the scientific and / or technical basis of the knowledge solution.
- **Problem-Solution Fit:** Identify how the solution clearly solves an identified, high-priority end user knowledge gap in a specific market segment or application.
- **Current Status:** Describe results of previous research, studies, and / or implementation and what has been achieved to date.

When **completing the Intellectual Property** section, follow the directions in the online application.

2. Competitive Analysis

Proponents must compare the knowledge solution with other available or under development research / studies.

When **comparing and contrasting the proposed opportunity**, consider the following:

- **Competitive Advantage:** Compare the proposed solution with other research / studies in the area and quantify how the solution differs from, and is better than, the others. If appropriate, use a competitive analysis table to summarize the key strengths and weaknesses of the

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 competitors' weaknesses, securing supply chains, manufacturing capability, and channels to reach and engage with customers.

When describing and comparing the innovation to competitors, 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 competitors or other collaborators.
- **Collaborators:** Explain the relationships with collaborators, end-users and competitors to advance the proposed innovation.

When describing the value proposition, follow the directions in the online application.

When describing how interest has been validated, follow the directions in the online application.

proposed solution alongside those of the competing research / studies.

- **Synergies:** Identify potential synergies between this solution and those carried out by others in this field.

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, 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, focus on addressing the pathway risks as project specific risks will be addressed later in the application.

When describing the resources, follow the directions in the online application.

3. Knowledge Mobilization Pathway

Proposals will be evaluated on the strength of the knowledge mobilization pathway that will lead to meaningful application or use of the knowledge in Alberta.

When explaining the knowledge mobilization pathway, consider the following:

- **Mobilization Pathway:** The pathway will need to ensure that the research / study results are accessible, in an implementation-ready format.
- **Relevance:** Describe the policy relevance of the project or its ability to advance policy, decision-making, or other best practices or tools. Outline the strategy to maximize outcomes of the knowledge generated.

When explaining the relationships, follow the directions in the online application.

When describing the potential barriers, consider the pathway risks and barriers, including the potential for obsolescence. The project specific risks will be addressed later in the 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.

The information within the *Project Overview* tab, will be automatically copied over from the Intake Form. Be sure to update this information as required. In a high dollar application, there are two text boxes available to complete this section. The information from the Intake Form will be copied into the first box. The online instructions for the second box are focused on methodology, applicants can

follow the online instructions or use both boxes to expand on the objectives, methodology, deliverables and outcomes with the same structure used in the Intake Form.

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 Program 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, also discuss any ineligible project expenses. NOTE: Expenditures prior to Alberta Innovates’ approval of the project and overhead costs are not eligible expenses.

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.

For Innovation-Commercialization projects, when describing the governance structures, 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.

For Innovation-Commercialization projects, when describing the project partners, 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**, 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 to support the achievement of short and long-term goals of the project.

For a low dollar application, use a narrative to describe the key project risks and the proposed mitigation strategy. It is not necessary to complete a full project risk table. Consider using the following headings:

- **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.

For a high dollar application, follow the directions in the online application.

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**, 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 / knowledge mobilization 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**, consider using headings such as GHG Impacts, Water Impacts, Land Impacts, Waste Impacts, etc.

When **completing the Social Impacts section**, consider using headings appropriate to the project.

For a high dollar application, 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 there are any questions, please contact your Project Advisor. For further information on Alberta Innovates' Trusted Partners, refer to the [Program Guide](#).

Equity, Diversity and Inclusion, and Feedback

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