
PROGRAM GUIDE: MUNICIPAL COMMUNITY GENERATION CHALLENGE

Part of the Climate Change Innovation and Technology Framework

Alberta Innovates and the Municipal Climate Change Action Centre are proud to announce the Municipal Community Generation Challenge



CHALLENGE PARTNERS



Alberta Innovates (AI) is a provincially funded corporation with a mandate to deliver 21st century solutions for the most compelling challenges facing Albertans. We do this by building on our province's research and technology development strengths in the core sectors of health, environment, energy, food and fibre, and platforms such as artificial intelligence, nanotechnology and omics.



The Municipal Climate Change Action Centre (MCCAC) provides funding, technical assistance, and education to support Alberta municipalities, schools, and non-profits in addressing climate change by reducing their greenhouse gas emissions. We envision Alberta municipalities demonstrating leadership in energy in their own operations and in the broader community.

The MCCAC is a partnership between the Government of Alberta, the Alberta Urban Municipalities Association (AUMA), and Rural Municipalities of Alberta (RMA).

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PROGRAM OVERVIEW

Background

In December 2017, the Government of Alberta (GOA) published the Climate Change Innovation and Technology Framework (CCITF) as the overarching guide for the government's investments in innovation and technology to reduce greenhouse gas (GHG) emissions, while preparing our province for the lower carbon economy of tomorrow. Alberta Innovates, on behalf of Economic Development & Trade, is offering five programs: Clean Technology Development, Clean Technology Networks & Emerging Partnerships, Clean Technology Commercialization, Clean Technology Business Innovation Vouchers, and Clean Technology Facilities Support.

The Municipal Community Generation Challenge (the "Challenge") is supported by both the **Clean Technology Commercialization (CT Com)** and **Clean Technology Network (CTN)** program.

Community generation refers to renewable and alternative energy that is distribution system-connected which provides benefits to communities. Community generation allows communities and citizens to directly participate in energy projects through full or partial ownership of the projects. Participation in community generation projects gives Albertans the ability to access renewable energy and generate revenue by selling electricity to the grid.

A renewable energy program that fosters growth in small-scale and community-owned renewable energy will help ensure maximum benefits of Alberta's electricity grid transition for everyone. This prioritization would address several government priorities, including job creation, local economic development, climate leadership and support for community resilience.

The Alberta government has passed the Small-Scale Generation Regulation which is intended to enable distribution-connected electricity generation from renewable and alternative sources to supply electric energy to the grid. It outlines rules to enable small-scale and community projects including definitions, set-up and operation. These rules also help reduce regulatory and financial barriers for generators. The municipalities and other partners are strongly advised to download these regulations, as AI and the MCCAC will only support those proposals that follow the Regulations given herein. Please see [Small Scale Generation Regulation](#).

CHALLENGE DETAILS

The Municipal Climate Change Action Centre (MCCAC) in partnership with Alberta Innovates (AI) is looking for Alberta municipalities to provide sustainable solutions that move municipalities towards low carbon community scale electricity generation via formation of a network/consortium partnership leading to installation of a community generation facility.

The Challenge will see the development of a new renewable electricity generation project(s) which produces a significant community benefit in the form of reduced greenhouse gas emissions, diversification of the local economy and whose data and knowledge can then be transferred to other Municipalities within the Province.

Municipalities across the province have an opportunity to play a prominent role in supporting Alberta's energy transition by developing their own renewable energy projects. Communities wanting to generate their own electricity through a small-scale renewable energy project have potential for long-term revenue by selling any excess power they generate to the grid. Projects connected to the distribution system must comply with all applicable acts and regulations.

Community scale low carbon electricity generation (community generation) in Alberta includes renewable and alternative energy sources derived from but not limited to:

- Solar Photovoltaics (PV)
- Fuel cells
- Wind
- Small-scale hydro
- Biomass
- Geo-thermal

This Challenge does not favor any one feed stock or production pathway to achieve a sustainable economic electrical power generation. Other generation sources may be permitted if the emission intensity of the electric energy produced, or the total energy produced from the simultaneous generation of electric energy and production of thermal energy from the same fuel source is less than or equal to 418 kg CO_{2e} MWh.

The Small Scale Generation Regulation does not identify minimum or maximum sizes of electrical power generation. The size of the system is only limited by the capacity of the local distribution network to off take the excess power. Typically, this is around a maximum of 20-25 MW depending on the specific project location in the province.

Challenge Requirements / Deliverables

- Development of a municipality network / consortium partnership to design a replicable community generation project development model for other Alberta municipalities.
- Participation in knowledge transfer (KT) activities to share learnings for scale and spread of the model to other municipalities. This will include development of KT plans and attendance at KT forums.
- Completion of an Alberta Utilities Commission (AUC) approved Community Benefits Agreement (CBA) or Community Benefits Statement (CBS) for the project as required by the Small Scale Generation Regulation.

- The technology must demonstrate adherence to all safety codes, legal and regulatory requirements and specifications.
- Production, operating and maintenance costs should be competitive with current production costs of electrical generation.

HOW THE PROGRAM WORKS

Eligibility

(a) Municipality Applicant Eligibility Criteria

The Applicant must be an Alberta municipality. Municipalities are defined as: all designated municipalities within the Province of Alberta that meet the definition of “municipality” as per Section 1(1)s of the [Municipal Government Act](#).

- Regional partnerships where multiple neighboring municipalities combine to submit a joint application are permitted.

(b) Network Partner Eligibility Criteria

The municipality network / consortium model must include at least 3 partners. One of which must be:

- A Low Carbon Electricity Alberta-based Small to Medium Sized Enterprise (SME) including those that provide for generation, control systems, energy storage, software, etc. An SME is defined as: a company with fewer than 500 Full Time employees, and less than \$50,000,000 annual gross revenue.

The Alberta-based SME Partner(s) is required to satisfy the following criteria:

- have a significant presence in Alberta (including staff, operations, and investments).
- be a legal entity:
 - incorporated in Alberta; or
 - incorporated federally or in another jurisdiction AND extra-provincially registered in Alberta; or
 - a General Partnership, Limited Partnership or Limited Liability Partnership AND registered in Alberta;
- demonstrate the relationship between the Applicant and the Partner(s) does not create a conflict of interest; and
- have no outstanding balance or otherwise owe money and/or reports to Alberta Innovates or its subsidiaries.

Network partners may include: community related organizations (CROs), Indigenous communities, consortia, energy regulators, energy generation and distribution partners, entrepreneurs, consultants, legal / environmental experts, post-secondary institutions, private sector / industry, non-profit organizations, associations etc.

(c) Project Eligibility Criteria

- The community generation facility must meet the definition of a “community generating unit” as per the Small Scale Generation Regulation.
- The community generation project must be in Alberta.

- The project must produce a quantifiable GHG emission reduction.
- The project must produce a significant community benefit that is formally documented in an Alberta Utilities Commission (AUC) approved Community Benefits Agreement (CBA) or Community Benefits Statement (CBS).
- The project must develop, submit and agree to participate in knowledge transfer plans and activities.
- The project must submit a completed application template with well-defined outputs and milestones.
- Submit to other criteria that Alberta Innovates may develop from time to time.

NOTE: Any proposed electricity generated must be able to be sold back to the grid. Microgeneration scale projects are out of scope for this Challenge. Projects will need to be community generating units as per the Small-Scale Generation Regulation – i.e. a distribution connected renewable or alternative energy system which is subject of a community benefits agreement or a community benefits statement.

As no one solution might be appropriate, multiple technologies may be combined to form an overarching systems solution, which needs to meet technological feasibility and economic viability.

Projects which have been successful in obtaining a grant through Emission Reduction Alberta's (ERA) BEST Challenge are not eligible to receive a grant through this Competition.

(d) Environmental Attributes

The Municipality Applicant or Partner(s) may not register or claim any environmental attributes generated by the Project. The Municipality or applicant may not transfer or assign any rights, title and interests, if any, in all environmental attributes generated by the Project to any person.

The Municipality or applicant must warrant that no environmental attributes generated by the Project have been claimed, sold or otherwise transferred to a third party and that no other person has any claim to or ownership of the environmental attributes generated by the Project.

“Environmental attributes” are defined as: emission offsets, renewable energy certificates, renewable energy credits, and any and all other current or future credits, benefits, emissions reductions, offsets or allowances, however entitled, named, registered, created, measured, allocated or validated

- (a) that are at any time recognized or deemed of value, or both, by any buyer, applicable law, or any voluntary or mandatory program of any government or other person and
- (b) that are attributable to
 - (i) generation by the Project and
 - (ii) the emissions or other environmental characteristics of such generation or its displacement of conventional or other types of energy generation through the avoidance of environmental impacts on air, soil or water, including but not limited to the emission of greenhouse gases.

HOW TO APPLY

Challenge Stages

The Challenge will include three stages. Project proposals will be evaluated on their merit and the potential for impacts aligned with the CCITF Clean Technology Development/Network Program.



STAGE ONE - Municipality Letter of Interest

This stage will entail the identification of municipalities that are interested in and will commit to partnering with clean technology partners to create a network solution. Municipalities will do this by submitting a Letter of Interest (LOI) to the Municipal Community Generation Challenge for a community generation project.

Submitted LOIs will be screened to ensure they meet minimum criteria for the program.

Challenge Requirements and Deliverables

- Submission of LOI to the Municipal Community Generation Challenge for development of a community generation project.
- LOIs are screened for completeness and minimum criteria.
- Eligible municipalities will be invited to proceed to stage two for development and submission of an Expression of Interest (EOI).



STAGE TWO - Network Formation and Expression of Interest Development

It is envisioned that the Municipality will need to be supported by various wrap-around partners leading to the creation of a network that will assist with the development of the proposal.

Successful LOI submissions from Stage One, will receive navigation support from the AI Clean Technology Network Program, which will assist the Municipality in identifying potential solution partners and provide facilitation resources, from which the Municipality can:

- 1) Seek out an SME core partner to collaborate with, develop or supply required technology to develop their proposal.
- 2) Identify other partners to collaborate with and form the solution network.

- 3) Identify any sub-contractor requirements.
- 4) Identify all or any regulatory, safety, environmental or compliance issues.
- 5) Engage their community in a dialogue about the proposed project.
- 6) Develop their Expression of Interest application.

Network partners must include an SME but could also be a team or network which could include: community related organizations (CROs), Indigenous communities, energy regulators, energy generation and distribution partners, entrepreneurs, consultants, legal/environmental experts, post-secondary institutions, private sector/industry, non-profit organizations, and other relevant associations.

The selection of a core SME technology partner and other partners for the Municipalities will be determined by the Municipality through a facilitated process by the Alberta Innovates Network program team.

Stage Two will entail the finalization of a partnership or collaboration between the Municipality and a core SME and other partners who can then jointly apply to Stage Three for review and evaluation.

Challenge Requirements and Deliverables

- Selection of a core SME technology partner by the Municipality.
- Identification and formation of a multi member network to help support the development of a municipal community generation project proposal which meets all environmental, regulatory, safety and legal requirements.
- Outline of an Alberta Utilities Commission (AUC) Community Benefits Agreement (CBA) or Community Benefits Statement (CBS).
- EOI submission to the Municipal Community Generation Challenge.
- Technical / business review of EOIs
- Successful EOIs will be invited to Stage Three Full Project Proposal Development based on the evaluation criteria.



STAGE THREE - Full Project Proposal Development

Stage Three will see the development and submission of a Full Project Proposal (FPP) describing in detail the project between the Municipality, SME and the Network. The FPP will require applicants to describe the full scope of work for the project, including financials of the partners, schedules, and budgets. Some acknowledgment from regulatory bodies is expected where environmental compliance is needed, or certifications are legally mandated.

The FPP submission will also include a knowledge transfer plan to capture learnings for scale and spread of the model to other Municipalities.

Applicants at this stage may be invited to make an oral presentation to the review panel as part of the evaluation process.

The top proposal(s) will be selected and awarded funding to complete the proposed project.

Challenge Requirements and Deliverables

- FPP development and submission to the Municipal Community Generation Challenge.
- Applicants may be asked to make oral presentations.
- Technical / business review of FPPs.
- Selection of the top project(s) based on the evaluation criteria.



STAGE FOUR – Investment Agreement Execution and Project Development

Successful applicants will execute an Investment Agreement with Alberta Innovates and the Municipal Climate Change Action Centre to proceed with the activities of the Project.

Investment Agreement expectations will include:

- participation in project management activities;
- reporting on progress to milestones and budget on a quarterly basis during the term of the Agreement; and
- reporting on progress to outcomes on an annual basis during the term of the Agreement and annually for five years after that term.

Project payment is tied to milestone, progress and performance reporting.

PERFORMANCE MANAGEMENT AND EVALUATION

Over the life of a project, Alberta Innovates employs an active project management philosophy, regularly monitoring performance and supporting the Applicant and Partners to reach their outcomes. Funding is tied to outcomes and achievement of results and submission of progress and performance reports. For this reason, Alberta Innovates funds on a milestone completion basis. This means the Applicant and Partner(s) are expected to complete a task and submit a progress report before Alberta Innovates advances the next tranche of funds.

All investment agreements outline the intended outcomes of the program and the corresponding performance indicators (measures) that will be tracked over the course of the project. Specific performance indicators will also be developed at the level of the individual project given the uniqueness of each project. The Applicant is responsible for annually reporting on all required indicators to Alberta Innovates via a survey.

The annual performance reports are used to inform program planning and performance management. The Program level performance results will be communicated back to Applicants, key stakeholders and the public. Failure to complete annual outcome surveys will also impact fund release.

Once projects are completed, Alberta Innovates continues to monitor performance for an additional five-year period to accurately evaluate the economic, environmental and social benefits realized for Albertans and our province.

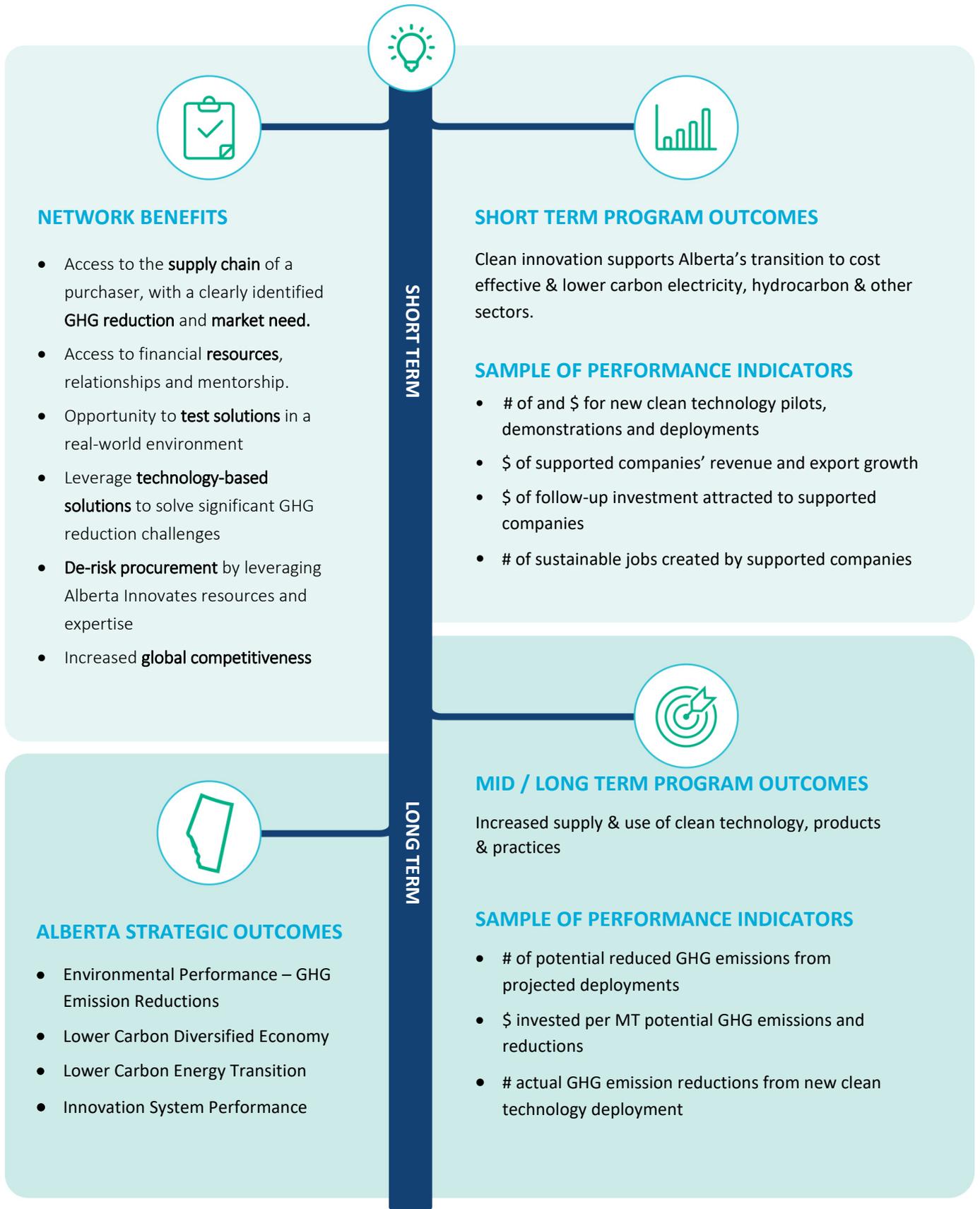
A results-focused organization Alberta Innovates uses a performance management framework to monitor and evaluate the outcomes and impacts of its investments. The Applicant is responsible for annually reporting on all required indicators to Alberta Innovates.

The Clean Technology Commercialization and Network Programs contributes to the strategic outcomes of the Climate Change Innovation and Technology Framework (CCITF).

CCITF Vision: *By year 2030, Alberta's use of innovation and clean technology ("Clean Innovation") will accelerate the shift to lower carbon economy, generating significant environmental and economic benefits.*

Short, mid and long-term program outcomes and a sample of key performance indicators are highlighted in the following diagram.

PATHWAY TO OUTCOMES



NETWORK BENEFITS

- Access to the **supply chain** of a purchaser, with a clearly identified **GHG reduction** and **market need**.
- Access to financial **resources**, relationships and mentorship.
- Opportunity to **test solutions** in a real-world environment
- Leverage **technology-based solutions** to solve significant GHG reduction challenges
- **De-risk procurement** by leveraging Alberta Innovates resources and expertise
- Increased **global competitiveness**

SHORT TERM PROGRAM OUTCOMES

Clean innovation supports Alberta’s transition to cost effective & lower carbon electricity, hydrocarbon & other sectors.

SAMPLE OF PERFORMANCE INDICATORS

- # of and \$ for new clean technology pilots, demonstrations and deployments
- \$ of supported companies’ revenue and export growth
- \$ of follow-up investment attracted to supported companies
- # of sustainable jobs created by supported companies

MID / LONG TERM PROGRAM OUTCOMES

Increased supply & use of clean technology, products & practices

SAMPLE OF PERFORMANCE INDICATORS

- # of potential reduced GHG emissions from projected deployments
- \$ invested per MT potential GHG emissions and reductions
- # actual GHG emission reductions from new clean technology deployment

ALBERTA STRATEGIC OUTCOMES

- Environmental Performance – GHG Emission Reductions
- Lower Carbon Diversified Economy
- Lower Carbon Energy Transition
- Innovation System Performance

HOW FUNDING WORKS

Project Funding

MCCAC is investing up to \$7 million and AI is investing up to \$3 million for a Challenge total of \$10 million in funding for one or multiple projects.

The municipality / SME Network partners are expected to contribute financially to the project in an amount 25% or more of the AI contribution (e.g., \geq \$750,000 for a \$3,000,000 ask from AI). The 25% contribution can be divided between the municipality and or the Alberta SME Technology partner / other Network partners. The contribution can be cash, in kind, or a combination thereof.

Funding will be dispersed to successful Applicants at the end of each milestone, based on milestone proof, over the maximum three-year project. Normally, the projects will be 1 – 3 years in duration.

Alberta Innovates and the Municipal Climate Change Action Centre encourage co-funding of projects with other funding agencies and do not limit the amount of stacking towards the applicant's contribution. Funding cannot exceed 100% of project costs.

Eligible and Ineligible expenses

The Municipal Community Generation Challenge funds expenses directly attributable to the performance of agreed upon projects. All costs incurred must be critical to the performance of the project, as outlined in the application.

The Municipal Community Generation Challenge only funds reasonable costs incurred as defined in the Investment Agreement after it has been executed.

A high-level summary of eligible and ineligible expenses is provided in Appendix A.

Please note for those Municipalities who have been successful in obtaining a grant through the MCCAC's Community Generation Capacity Building Program, any project deliverables that have been funded under that grant agreement are not eligible for funding under this Challenge and workplan and milestones should be separated accordingly.

Please also note that successful Municipal Community Generation Challenge projects will be ineligible for the Community Generation Program to be offered by the Alberta Climate Change Office in 2019.

Projects must be completed by March 31, 2022.

APPLICATION REVIEW PROCESS

During the distinct stages of the application and review process, Alberta Innovates leverages internal staff and external expert reviewers to evaluate applications submitted. Alberta Innovates and the Municipal Climate Change Action Centre retain the sole right to determine the evaluation process and does not disclose the names of its external reviewers to ensure their objectivity and impartiality. All external parties are subject to confidentiality, intellectual property management and conflict of interest policies set by Alberta Innovates.

All investment decisions are at the sole discretion of Alberta Innovates and the Municipal Climate Change Action Centre.

DIVERSITY, EQUITY AND INCLUSION

The Alberta research and innovation (R&I) ecosystem is stronger and more sustainable when it is broadly reflective of the overall diversity of our community. Alberta Innovates strives to ensure all interested and qualified parties have an equitable opportunity to participate and contribute. Historically, there have been a number of groups/populations that have been under-represented in the Alberta R&I landscape including:

- Women entrepreneurs/researchers;
- Indigenous entrepreneurs/researchers;
- Remote/small community entrepreneurs/researchers; and
- Immigrant entrepreneurs/researchers.

We are guided by the principles of:

- **Diversity** – both internal and external participants to our processes are comprised of a varied composition of demographics;
- **Equity** – our processes support equal access across all demographics; and
- **Inclusivity** – our processes proactively work to include underrepresented segments of the R&I landscape.

As part of its commitment to Diversity, Equity and Inclusion (DEI), Alberta Innovates will:

- Collect data in the application process on a voluntary basis to better understand diversity;
- Provide application navigation support to applicants from under-represented groups; and
- Integrate a DEI focus into its due diligence processes including striving to have diverse review committees to foster unbiased decision making.

TERMS AND CONDITIONS

This Program Guide is intended as a high-level overview of the Challenge. It provides interested parties with a roadmap of what to expect over the lifecycle of a project, from the application stage, during the project and post-completion. Should you have any questions about this guide or what is expected, please contact Alberta Innovates. Please be aware the Alberta Innovates and the Municipal Climate Change Action Centre may modify this guide from time to time in keeping with any changes to the Clean Technology Commercialization program, or the Climate Change Innovation and Technology Framework.

Once we have evaluated and approved an application for funding, Alberta Innovates and the Municipal Climate Change Action Centre will require the participants to sign a standard form investment agreement. The investment agreement sets out in detail the roles, responsibilities and obligations of the various parties to ensure a successful project. Alberta Innovates will not provide any funding until the investment agreement has been signed by all parties.

CONTACT INFORMATION

To discuss eligibility for this program, to receive an application form or for specific questions regarding this program and guide, please contact:

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Please check the [Municipal Community Generation Challenge website](#) routinely for timeline updates and additional information.

APPENDIX A - SUMMARY OF ELIGIBLE AND INELIGIBLE EXPENSES

Category	Eligible Expenses	Ineligible Expenses
Labour	<ul style="list-style-type: none"> ✓ Salary and benefits for individuals who are specifically working on the project 	<ul style="list-style-type: none"> ✗ Overhead costs charged to employee labour rates ✗ Professional training & development ✗ Professional fees unless directly related to the project
Materials	<ul style="list-style-type: none"> ✓ Reasonable material costs 	
Capital Assets & Software	<ul style="list-style-type: none"> ✓ Capital improvements ✓ Capital equipment ✓ Software or information databases <p><i>Note: Eligible costs will be pro-rated to the project time frame based on the asset's expected economic life</i></p>	<ul style="list-style-type: none"> ✗ Acquisitions of land or buildings ✗ The undepreciated value of eligible capital costs which extends beyond the project timeframe
Travel	<ul style="list-style-type: none"> ✓ Travel, including mileage, low economy airfare, and accommodation for the purposes of executing the project 	<ul style="list-style-type: none"> ✗ Passport or immigration fees ✗ Costs relating to meals, entertainment, hospitality and gifts ✗ Reimbursement for airfare purchased with personal frequent flyer programs ✗ Commuting costs between place of residence and place of employment
Sub-contractors	<ul style="list-style-type: none"> ✓ Services or products of another entity 	<ul style="list-style-type: none"> ✗ Costs associated with applying for government grants and programs ✗ Provisions for contingencies, technical or professional journals ✗ Routine testing and maintenance
Other	<ul style="list-style-type: none"> ✓ Costs which Alberta Innovates and the Municipal Climate Change Action Centre pre-approve in writing as an eligible expense 	<ul style="list-style-type: none"> ✗ Collection charges, allowance for interest on debt, fines and penalties ✗ Federal and provincial income taxes, goods and services taxes ✗ Expenses for projects or activities outside the approved Project