



Gold River, B.C.

INNOVATIVE CLEAN ENERGY (ICE) FUND

2024 Targeted Call for Clean Energy Innovation

Program Guide

Intake for this call is now closed.

The second year of this call is expected to open in the spring of 2025.

Application Documents are published on the ICE Fund Website

Email completed applications and questions to: icefund@gov.bc.ca

Successful candidates will be offered funding by September 30, 2024



Squamish, B.C.

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ICE FUND OVERVIEW

British Columbia’s Innovative Clean Energy Fund (“ICE Fund”) is designed to support the British Columbia (B.C.) government’s energy, economic, environmental and greenhouse gas (GHG) reduction priorities and advance B.C.’s clean energy sector. Since 2008, the ICE Fund has committed over \$114 million in funding to support pre-commercial clean energy technology projects and energy efficiency programs.

The ICE Fund is focused on clean energy technologies and pathways. Technologies funded by the ICE Fund often have GHG emission reductions and other environmental co-benefits but central to the ICE Fund is a strong connection to the use of clean energy (zero or very low carbon intensity).

The ICE Fund currently has both an Open Call for Innovation and Partnerships as well as this 2024 Targeted Call for Clean Energy Innovation (“Targeted Call”). This program guide is specific to the ICE Fund’s Targeted Call.

Open Call for Innovation and Partnerships	2024 Targeted Call for Clean Energy Innovation
<ul style="list-style-type: none">• Open year-round• Funding availability determined each year• Project types:<ul style="list-style-type: none">◦ Pre-commercial technology development◦ Partnership projects with other funds and initiatives that benefit clean energy innovation ecosystem• Program Guide Link	<ul style="list-style-type: none">• Open for Set Period: Current intake open to June 14, 2024• \$12.3M for 3-year call (2024, 2025, 2026)• Project types:<ul style="list-style-type: none">◦ Pre-commercial technology development to first-of-kind-commercial◦ Projects in preferred themes or other innovative clean energy projects

The ICE Fund is innovation-focused and is always open to impactful projects. Please contact the icefund@gov.bc.ca if you have any questions about the calls or partnership opportunities.

TARGETED CALL OVERVIEW

The ICE Fund Targeted Call supports the development and deployment of B.C.-based innovative clean energy technology solutions. The Targeted Call is designed to support provincial priorities including implementation of the [CleanBC Roadmap to 2030](#) and supporting the availability and affordability of clean energy. The Targeted Call is administered by the ICE Fund team within the B.C. Ministry of Energy Mines and Low Carbon Innovation. Successful projects under this Targeted Call are expected to have:



Near-Term Deployment and Impact:

- Projects will demonstrate a clear pathway to near-term commercial deployment in B.C. that optimizes the use of clean energy and reduces GHG emissions.
- Projects will demonstrate realistic GHG reduction estimates resulting from project deployment and technology adoption in B.C. to 2030 and 2040.
- Projects that improve affordability for households and businesses, or improve energy system resilience will be prioritized.



Strong Connection to B.C.:

- Projects are required to take place in B.C.
- Applicants with stronger and long-term commitment to the Province are preferred including but not limited to technology development, company presence, intellectual property, economic development, and employment.



Strong and Sustainable Innovation Advantage:

- Projects that are more innovative and are step-change improvements are preferred over incremental improvements to existing equipment, services, or processes.
- Projects with a strong and durable B.C.-focused intellectual property strategy are preferred.

ELIGIBILITY

Project Type: Technology Theme Eligibility and Preferences

Applications that meet the Targeted Call's mandatory and weighted criteria requirements are eligible to apply. Project types listed in the following themes are preferred but the call is open and strong applications that clearly meet the criteria are encouraged to apply.

Clean Energy Optimization and Management: Utilization and management of clean energy (e.g., clean electricity) more efficiently in end-use applications (i.e., not utility-scale energy generation, transmission, and distribution).

Examples:

- Energy management, storage and electricity/grid gas integration, including smart grid and artificial intelligence applications.
- Improving the efficiency and utilization of clean electricity for end-use residential, commercial, and institutional customers behind-the-meter.
- Projects that improve electricity use resilience and energy savings, including demand side management (DSM).
- Projects with technologies that optimize use of different energy types within a system in real-time for parameters such as cost and GHG emission intensity (e.g., shifting between electricity and gas use).
- Projects that reduce GHG emissions in off-grid or end-of-line grid electricity customer applications (and aren't eligible or a fit for existing funding programs).
- Electric vehicle-to-grid (V2G) integration (e.g., bi-directional charging).
- Advanced load, distributed energy resource and renewable energy integration.
- Non-utility scale renewable energy or electricity generation technologies with near-term adoption and scalability.

Buildings Innovation: Energy-consuming devices, equipment and management technologies used within, or connected to buildings.

Examples:

- Electricity supply and load management equipment.
- Distributed energy generation and energy storage systems.
- Technologies that lower the capital, installation or operating costs of electrification, electrical equipment and service within or attached to buildings.
- Heat Pumps:
 - Electric heat pumps (air/water/ground) for space heating/cooling or water heating;
 - Technology solutions that address emergent and under-represented market segments (e.g., smaller heat pumps for multi-unit residential building units);
 - Highly energy efficient dual-fuel heat pumps; and,
 - Technology solutions that significantly reduce the cost for commercial applications.

Ineligible Project Types:

- Research-only focused projects. Projects that do not have a near-term pathway to commercialization and market deployment in B.C.
- Feasibility-only focused studies. Projects that are pre-feasibility, feasibility, engineering studies, business cases or other similar studies.
- Commercial technology projects that are not truly “First-Of-Kind” in B.C. (i.e., never deployed in B.C or project deployment will be in a novel, impactful and scalable application). Commercial “First-Of-Kind” projects will need very strong, compelling, and evidence-based applications to be successful.
- The ICE Fund reserves the right to exclude any application, at any point in the application process. If an applicant is unsure on applicant or project eligibility, they are encouraged to contact icefund@gov.bc.ca

Technology Development/Commercialization Eligibility

Projects that are either:

- a) Pre-Commercial Technology Development: progress a novel clean energy technology towards commercial deployment and adoption in B.C.; or,
- b) Commercial Technology First-Of-Kind: Deployment of commercialized, clean energy technology in a novel sector, application, or configuration.

Stages of Development

The project must clearly demonstrate how it will progress the technology towards commercialization and market adoption in British Columbia. At the time of application, projects should be at one of the following stages of development in the Technology Readiness Level scale (TRL):

- Component Validation (TRL 4 – 5): The technological components have been integrated and tested in a simulated environment.
- Prototype (TRL 6): A prototype is tested in a relevant environment.
- Operational Prototype or Pilot (TRL 7): A prototype or pilot in an operational environment.
- Operational Deployment Testing (TRL 8): Technology is in final form and operates under expected conditions. Testing against operational requirements.
- Operational Deployment Proven (TRL 9): Technology is proven to meet operational requirements in operational and “real world” conditions.



Clearwater, B.C.

Other Eligibility Terms

Eligibility Term	Description
Applicant	<ul style="list-style-type: none"> Any Canadian legal entity is eligible to be an applicant and submit an application for funding of projects under this fund. The ICE Fund may, in its sole discretion, determine whether an entity is eligible or ineligible.
Project Location	<ul style="list-style-type: none"> The project must take place within British Columbia.
Previously Funded Projects	<ul style="list-style-type: none"> Projects or portions thereof that have previously received funding from the ICE Fund are not eligible to receive further funding for that project under this call. However, a new project that builds on and substantially advances a previously funded project may be eligible for funding under this call.
Project Term	<ul style="list-style-type: none"> Projects should be completed within two (2) years of contract execution.



Central Coast Regional District, B.C.

FUNDING AND ELIGIBLE EXPENSE TERMS

Funding Terms

Funding provided through the ICE Fund is non-dilutive grant funding payable upon completion of project milestones.

Funding Term	Description
ICE Funding Available per Application	<ul style="list-style-type: none"> • Anticipated to be between \$500,000 and \$1,000,000 per application.
Total Government Funding	<ul style="list-style-type: none"> • At the time of application and through the term of the project, government funding must not exceed 75% of Eligible Project Costs.
Minimum Applicant and/or Consortium Partner* Funding	<ul style="list-style-type: none"> • Minimum of 25% of Eligible Project Costs.
Total Funding Available for Call	<ul style="list-style-type: none"> • Total funding amount allocated for this Targeted Call is \$12.3 million over 3 years. Each fiscal year there is anticipated to be a call for approximately 1/3 of total Targeted Call funds available.
Other Funding Terms	<ul style="list-style-type: none"> • Funding is limited. The ICE Fund reserves the right to not fund a project or offer less funding than requested. • Projects need to demonstrate the need for funds for the project to move forward. • Projects with additional and committed funding sources are preferred.

**A consortium partner is a non-related partner who has committed to providing cash and/or in-kind contributions to the project. Consortium partners may include entities such as a potential customer of the applicant, technology co-developers and academic institutions.*

Eligible Costs

“Eligible Costs” are cash and in-kind eligible expenses incurred by the applicant for the project during the term of the funding agreement. In general, eligible costs include goods, services, professional and technical costs required to plan and conduct project activities, the cost of capital items that have no residual value beyond the scope of the project, the depreciation cost of capital items that have a residual value beyond the scope of the project, and capacity building and/or transportation costs associated with projects involving rural, remote or regional communities. The majority of Eligible Costs (>50%) must be incurred in B.C.. Funding from the ICE Fund must be less than the amount of Eligible Costs in B.C. as well.

EVALUATION CRITERIA

Weighted Criteria

Weighted Criteria: The following criteria are used to evaluate the strength of a project.

Weighting	Criteria	Description
25	Strength and Innovation of the Clean Energy Technology	<p>The strength of the clean energy technology involved, including:</p> <ul style="list-style-type: none"> • The scientific basis for the technology. • The expected technology advancement over the course of the project. • How innovative the technology or application of technology is (i.e., improvement over baseline or current market technology?). • The strength of the applicant's intellectual property strategy for maintaining a sustainable advantage over competitors. • Extent to which intellectual property is based in B.C., with B.C. benefits, and the goal of keeping intellectual property in B.C. post-project.
25	Greenhouse Gas Reduction and other Clean Energy Co-Benefits Potential	<p>The potential for the clean energy projects and technologies to deliver significant and sustainable reductions in GHG emissions, including:</p> <ul style="list-style-type: none"> • The GHG reductions per unit of technology output/throughput. • The GHG emissions reductions directly attributable to project completion. • The GHG reductions that are estimated to result from commercial-scale deployment of the proposed technology in British Columbia from 2030 to 2050. • The broader potential for GHG emissions reductions throughout British Columbia, Canada, and the rest of the world from widespread adoption of the proposed technology. • Clean energy co-benefits such as clean air, water and soil. • Energy system transformation and energy efficiency and conservation benefits.
20	Market and Value Proposition (Technology Impact)	<p>The opportunity for commercialization and market adoption of the technology in B.C., including:</p> <ul style="list-style-type: none"> • Value proposition to end-users. • Competitiveness with existing commercial technologies/processes. • The market size and market value associated with the technology and its products. • The commercialization plan and expected pathway for commercial deployment and market adoption in British Columbia and Canada, with deployment priority in British Columbia.
10	Connection and Benefit to B.C. (Company Impact)	<ul style="list-style-type: none"> • Projects with stronger and sustainable connections to B.C. are preferred (including: technology development, company location, intellectual property, economic development, manufacturing and employment). • Potential for economic development and job growth in B.C. and Canada from the project and from the commercialization plan.
10	Budget and Funding	<ul style="list-style-type: none"> • How well developed and realistic the budget is, and the applicant's ability to obtain funding for the project and technology development. • The applicant's need for funding as well as the availability of other funding sources to fund the project.
10	Project Management Capability	<ul style="list-style-type: none"> • How well developed, achievable, and impactful the scope of work and work plan are. • How well-suited and committed the project team is to carry out the proposed work, including the management and technical capacity of the applicant. • Project consortium strength includes external partners contributing towards commercialization. Strength of a consortium partner will be measured by a consortium partner's financial and non-financial commitments to both the project and post-project commercialization of the technology. • How well project and technology risks are identified and managed.
100	TOTAL	

EVALUATION CRITERIA

Desirable Project Attributes

Desirable Project Attributes: Projects with the following attributes are encouraged and recognized in application scoring.

Weighting	Criteria	Description
Up to 20 additional points in total, but no more than 4 points in a category	Affordability	<ul style="list-style-type: none"> Project improves affordability for households and businesses. For affordability to be considered the total cost of ownership should be quantified in comparison to a realistic baseline (i.e., technology and equipment that would be used in the absence of the technology in the application).
	Energy Resilience	<ul style="list-style-type: none"> Project improves the energy resilience of the energy service or the broader energy system. Technology improves the uninterrupted availability of energy sources at an affordable price.
	Equity, Diversity and Inclusion	<ul style="list-style-type: none"> Project supports inclusivity of Indigenous peoples, minority communities, immigrants, persons with disabilities, the 2SLGBTQ+ community, and/or rural, remote and regional communities. Applicants with diverse leadership teams.
	Indigenous Benefit	<ul style="list-style-type: none"> Project is Indigenous-led or helps advance reconciliation in British Columbia and Canada. Project has opportunities to generate social and economic opportunities for Indigenous Peoples.
	Regional Economic Benefit	<ul style="list-style-type: none"> Project location and/or applicant's location is outside the lower mainland and southern Vancouver Island.

Mandatory Criteria

Applications will be initially screened against the following criteria:

- The application is written in English.
- The application is sufficiently complete and comprehensible to support evaluation.
- The applicant and proposed project meets the eligibility criteria on page 5-7.
- The project location is in B.C.

APPLICATION PROCESS AND TIMELINE

01

Application Window Open (May 15 to June 14, 2024):

- Email applications to: icefund@gov.bc.ca.

02

Application Review Stage (June 17 to June 28, 2024):

- Applications will be reviewed by the evaluation team. The strongest applications that meet the evaluation criteria on pages 9 and 10 will be invited to submit a detailed proposal.

03

Proposal Stage (June 29 to September 30, 2024):

- Applicants successful in the application stage, subject to the availability of funding, will be invited to submit a detailed proposal (June 29 – July 31, 2024).
- Detailed proposal will be evaluated by the evaluation team.
- Online Presentation: Detailed proposals that meet minimum score requirements will be asked to participate in an online presentation to present the project to the evaluation team August 16 - 22.
- Successful Proposal Decision: Proposals are ranked based on application and detailed proposal scores, preferred project types and Targeted Call portfolio fit. Successful applicants will be notified before September 30.

04

Contract Stage (September 2024 onwards):

- Successful applicants will be offered the opportunity to sign a contract with the Province.

05

Project Implementation Stage (two years):

- Projects will be required to start before December 31, 2024, and finish within two years of the contract start date.
- Project Completion Report: Projects will be required to submit project completion reporting (financial, outcomes impact) at the end of the project implementation stage.

06

Project Monitoring and Reporting (to 2030):

- Fund recipients will be required to complete simplified annual performance reporting for each calendar year post project completion, to December 31, 2030.

At each stage the ICE Fund may use technical and business reviewers to support evaluation and due diligence. Technical and business reviewers are government employees but may also be contractors or external parties that are subject to confidentiality agreements to maintain the confidentiality of information submitted by the applicant. Applicants that do not receive funding may request feedback.

The ICE Fund, at its sole discretion, reserves the right to not Fund a project for reasons including, but not limited to budget availability, and fit of the project within the Ministry's mandate or Targeted Call Program Guide.



OPPORTUNITY TO RECEIVE FUNDING FROM MULTIPLE FUNDS

Applicants may be eligible to have their application reviewed concurrently by another B.C. government administered fund which may support additional funding opportunities for an applicant's project. By participating in this Targeted Call applicants acknowledge their application may be considered under the ICE Fund Open Call or referred to another B.C. government fund for additional funding consideration.

INTELLECTUAL PROPERTY

Intellectual property will be addressed through the funding agreement between the ICE Fund and each successful applicant and will be specific to the circumstances of each project. However, a few general principles apply:

- Background intellectual property (patents, copyright, software) and third-party technology remains with its original owner(s).
- The ICE Fund retains rights to receive the project results, for reporting purposes including the technical data, reports, analysis, and discussion.
- Project technology developed as a part of the co-funded activities will be owned by the successful applicant. However, successful applicants will be expected to use and/or make the technology available through reasonable commercial terms for the benefit of British Columbia.

LEGAL AND CONFIDENTIALITY NOTICES

The ICE Fund will maintain the confidentiality of information provided as part of this Targeted Call, in accordance with the *Freedom of Information and Protection of Privacy Act* (FOIPPA), including information that has been clearly marked as confidential at the time of disclosure, and when in oral form, has been clearly identified as confidential at the time of disclosure and is then followed by written confirmation within 7 days, except information which:

- Is part of the public domain;
- Becomes part of the public domain other than as a result of a breach of these provisions;
- The Province is required to disclose pursuant to applicable laws or any rule or regulation of any government entity of competent jurisdiction;
- Is already known or available to the Province or independently developed by the Province;
- Was received in good faith from an independent person who was lawfully in possession of such information free of any obligation of confidence;
- Is aggregated and used for purposes related to statistical analysis and reporting in a manner that does not identify individual applicants; or,
- Is agreed upon by the applicant to be acceptable for release, including information provided in sections of the application indicated as non-confidential.

Notwithstanding the above, applicants hereby acknowledge that the FOIPPA may apply to all information and records provided by the Applicant to the ICE Fund and to any information records which are in the custody or under the control of the ICE Fund.



Canal Flats, B.C.

CONTACT INFORMATION

ICEFUND@GOV.BC.CA



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