

FISHERIES AND AQUACULTURE ENERGY EFFICIENCY INNOVATION FUND

PROGRAM GUIDELINES 2024-2027

PROGRAM OVERVIEW

The **Fisheries and Aquaculture Energy Efficiency Innovation Fund (FAEEIF)** is a provincially-funded program in partnership with Efficiency Nova Scotia that helps prepare the commercial fisheries and aquaculture sectors in Nova Scotia to reduce their energy use and reduce climate change impacts, in alignment with provincial targets per the Environmental Goals and Climate Change Reduction Act: *reduce emissions to at least 53% below the levels that were emitted in 2005 by 2030 and achieve net zero by 2050.*

The FAEEIF aims to incentivize innovative, sustainable, and energy-efficient practices in Nova Scotia's commercial fisheries and aquaculture sectors through non-repayable, claims-based contributions across four pathways:

1. Electrification Path
2. Renewable Path
3. Operational Efficiency Path
4. Study Path

FAEEIF applications are accepted during calls for applications, issued twice annually except in the case of the study stream which accepts applications on a continuous basis. For details on application preparation and submission, see the "Application Process" section on page 12.

Meaningful action on equity, diversity, inclusion, and accessibility (EDIA) is a priority within the Government of Nova Scotia to ensure our workforce, our programs and services are representative of the diverse public we serve. The Department of Fisheries and Aquaculture is committed to championing a more inclusive, diverse, equitable and accessible workplace and supporting inclusion, diversity, equity and accessibility in our fisheries and aquaculture sectors. FAEEIF applicants are asked to describe how an EDIA lens is applied to their work and the delivery of their proposed project.

The Government of Nova Scotia welcomes applications from Indigenous people, African Nova Scotians, other racially visible persons, individuals with disabilities, and women in occupations or positions where they are under-represented. If you are a member of one of these equity groups, you are encouraged to self-identify on your application.

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1. APPLICATION SUPPORT

The FAEEIF team is available to assist applicants as they navigate the application process. The FAEEIF team can help identify eligible energy-saving measures, ensure that applicants meet all program requirements, and help with calculations as needed. For assistance, please contact faeeif@efficiencyns.ca.

Successful applicants must participate in a Net Zero Roadmap survey and provide operational energy data as a condition to receive their FAEEIF funding.

2. ELIGIBLE APPLICANTS

Assistance under the FAEEIF is provided to eligible, successful applicants wishing to improve the energy efficiency of their operation and reduce their carbon footprint through the adoption of existing energy efficient technologies.

Applicants must:

1. Be the end user of the proposed project. Consideration will be given to the provision of support to vendors, consultants, support industries, etc. under the Study Path.
2. Have legal capacity to operate in Nova Scotia, e.g., be in good standing with the Registry of Joint Stock Companies as a sole proprietorship, partnership, corporation, society, social enterprise, not-for-profit, charity in business, or other similar organization.
3. Be in good standing with the Fisheries and Aquaculture Loan Board (FALB), as well as other provincial and federal regulatory bodies.

And meets one of the following criteria:

1. Are an aquaculture business in Nova Scotia holding a valid licence and lease from the Nova Scotia Department of Fisheries and Aquaculture, and are in good standing with the relevant regulatory authority.
2. Are a commercial fish harvester/business operating in Nova Scotia, holding a valid licence from the federal Department of Fisheries and Oceans, and are in good standing with the relevant regulatory authority.
3. Are a fish buying or processing business registered and licensed in Nova Scotia and in good standing, holding a valid licence from the Nova Scotia Department of Fisheries and Aquaculture.
4. Operates a business or organization registered in Nova Scotia that directly supports the commercial fisheries and aquaculture industries. A description of how the fisheries industry is supported will be required and evaluated by the FAEEIF.

Supporting documents are required to verify eligibility such as incorporation documents, supplier quotes for the project, relevant operating permits, and licensing; and any other documents required to determine how the project meets fund objectives.

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3. ELIGIBLE MEASURES

The FAEEIF is intended to support new projects and does not provide support to ongoing, initiated, or implemented projects.

The intent of this fund is to reduce greenhouse gas emissions or enable future greenhouse gas savings through innovation. Please note applications will be competitively reviewed by pathway considering funding dollars requested vs impact as evaluated using the scoring criteria provided in Section 8. It is highly recommended that only costs that are reasonably required to achieve the objectives of the proposed project be included.

The FAEEIF recognizes that project costs can vary depending on the scope and nature of the proposed initiatives. Eligible and ineligible project costs under FAEEIF may include, but are not limited to the following examples.

Eligible Costs:

- Costs directly related to the implementation of the project (e.g., equipment, materials, and labor).
- Professional services directly required for project execution (e.g., engineering or consulting fees).
- Costs associated with project evaluation, monitoring, and reporting.
- Permitting, regulatory, and certification expenses necessary for the project.

Ineligible Costs:

- Base Case project cost (i.e. project expenses that are not directly associated with or necessary for the energy-efficient upgrade component(s) of the project).
 - For example, with the purchase of a new boat, the new boat itself would be the Base Case cost. Any costs incurred to make this an electric boat (e.g., electric motor, batteries, wiring, specific hull design to increase range) could all be considered justifiable eligible costs. For any questions on this, please reach out to the FAEEIF team.
- General operational or administrative business expenses that are not directly tied to the project.
- Fines, penalties, or legal fees.
- Costs incurred prior to the approval of the funding agreement.

Program Discretion:

Please note that the determination of eligible and ineligible costs is at the sole discretion of FAEEIF and will be assessed on a case-by-case basis. Applicants are required to provide detailed budgets and justifications for all proposed expenditures.

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ELECTRIFICATION PATH

Objective: Supporting the transition to the use of electric vessels, support vehicles (electric off-road support vehicles need to displace fossil fuel-based off-road support vehicles), and charging infrastructure (including associated energy storage).

Examples of measures:

- Diesel vessel data logging and design.
- Diesel to electric hybrid vessel conversion.
- Support vehicles such as forklifts.
- Charging infrastructure (including associated energy storage).
- Any innovative projects that advance the objective of this path.

Measures not included:

- No measures are explicitly excluded: the intent of this fund is to generate greenhouse gas savings or enable future greenhouse gas savings through innovation. Please note applications will be competitively reviewed per path **by funding dollars requested vs impact (GHG)** as evaluated by the scoring criteria sections below. It is **highly recommended that only costs be included that are reasonably required** to achieve the objectives of the proposed project. An Energy Manager is available to guide applicants through the application forms.

RENEWABLE PATH

Objective: Supporting adoption of renewables such as solar, wind, geothermal, or biofuel.

Examples of measures:

- Renewable energy generation installations that support businesses in the fisheries sector or powering charging infrastructure for electric vessels.

Measures not included:

- No measures are explicitly excluded: the intent of this fund is to generate greenhouse gas savings or enable future greenhouse gas savings through innovation. Please note applications will be competitively reviewed per path **by funding dollars requested vs impact (GHG)** as evaluated by the scoring criteria sections below. It is **highly recommended that only costs be included that are reasonably required** to achieve the objectives of the proposed project. An Energy Manager is available to guide applicants through the application forms.

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■ OPERATIONAL EFFICIENCY PATH

Operational improvements: Implementation of technical improvements in their facilities such as equipment/system purchases or retrofits that result in energy reduction as compared to an established baseline.

Examples of measures:

- Heat pumps, chiller upgrades, pump downsizing, high efficiency motors, insulation upgrades, process optimization.
- Any innovative projects that advance the objective of this path.

Measures not included:

- No measures are explicitly excluded: the intent of this fund is to generate greenhouse gas savings or enable future greenhouse gas savings through innovation. Please note applications will be competitively reviewed per path **by funding dollars requested vs impact (GHG)** as evaluated by the scoring criteria sections below. It is **highly recommended that only costs be included that are reasonably required** to achieve the objectives of the proposed project. An Energy Manager is available to guide applicants through the application forms.

■ STUDY PATH

Objective: Supporting studies that enable future projects under the other pathways (Electrification, Renewable, and Operational Efficiency) included in this funding program. The intent of the study should be to enable more than one project that is not tied to a specific company. The Study Path promotes future projects that enable the core intent of the fund to create innovative, sustainable, and energy-efficient practices in the Nova Scotia fisheries sector.

Note: Studies can be submitted outside of the call for applications schedule with a justification provided by the applicant to the FAEEIF team.

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Examples include:

- Studies identifying opportunities associated with electrification of process heating in the industry.
- Studies to evaluate facility/equipment/infrastructure design to improve efficiency of pumping and refrigeration systems.
- Studies identifying solutions to support the decarbonization of offshore, midshore, and/or aquaculture vessels.
- Any other study that enables projects under the other pathways (Electrification, Renewable, and Operational Efficiency).

4. ENERGY AND GHG SAVINGS CALCULATIONS

Applicants will need to calculate energy savings, simple payback period, and projected greenhouse gas (GHG) emissions reduction from their project, using approved methodologies from Efficiency Nova Scotia provided below. For assistance with GHG or simple payback calculations, please contact faeeif@efficiencyns.ca.

GHG Emissions Calculation

To calculate your greenhouse gas emissions reduction, please use the following definitions and formulas:

- **Fuel Consumed:** Total fuel consumption in a year.
- **Electricity Consumed:** Total electricity consumption in a year.
- **Emissions Factor:** Based on the type of fuel consumed, the emissions factor can be determined. For more information, please check these links:
 1. [Emissions Factors and Reference Values](#)
 2. [Autosmart Factsheet](#)
 3. [Air Emissions Reporting](#)

GHG Calculation Formula

- GHG emissions (Kg CO₂) = Fuel consumed (liters) × Fuel Emission factor (Kg CO₂/liter)
- GHG emissions (Kg CO₂) = Electricity consumed (kWh) × Electricity Emission factor (Kg CO₂/kWh)

Simple Payback Period Calculation

To assess the financial viability of the project, the applicant will need to calculate the simple payback period of the project using the following steps:

- **Total Eligible Project Costs:** Calculate the total cost related to the energy-efficient portion of the installations or upgrades required for the project.
- **Annual Savings:** Calculate the yearly savings from reduced fuel costs, maintenance, and other operational efficiencies (note that changes in operational costs should be accounted for, such as the cost of electricity when electrifying equipment).
- **Payback Period Formula:** Use the formula below to determine the payback period in years:

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5. INCENTIVES

The program will offer funding for eligible projects to a maximum per funding path as shown in the table below. While the applicant can get up to 80% of their project's total funding from other sources (e.g., Federal, private, etc.), the applicant is required to contribute a minimum of 20% of the total project cost*.

Please note that third party in-kind contributions are not considered with respect to stacking limits and applicant contributions.

Eligible applicants can apply for reduced interest rate lending via the Nova Scotia Fisheries and Aquaculture Loan Board to account for their 20% minimum contribution. [View current loan options](#) offered by the Nova Scotia Fisheries and Aquaculture Loan Board.

Pathway	Percentage of eligible project costs*	Maximum funding amount	Additional requirements
Study	75%	Up to \$50K**	
Electrification	80%	Up to \$350K***	Business Plan for requests > \$100K
Renewables	50%	Up to \$100K / \$60K****	N/A
Operational Efficiency	50%	Up to \$100K / \$60K****	N/A

*Applicants will be required to provide a breakdown of costs in each respective application form.

**If a study is conducted to support future work related to the Operational Efficiency or Renewable Path, the maximum limit for funding is \$100K.

***Funding in this stream will be awarded to one boat per application. If data logging funds are claimed within the electrification pathway in an initial application, the remaining funds from the \$350K maximum will be available for subsequent electrification conversion.

****Heat exchangers, floating head pressure, and solar photovoltaic system projects have been common applications to the FAEEIF and will be restricted to a maximum funding amount of \$60K.

To support the development of application packages seeking greater than \$100K, please consult our **Business Plan Checklist** to ensure required components are included for evaluation.

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Business Plan Checklist:

- **Business Description:** Include key personnel and expertise, location of operations, and activities undertaken.
- **Sector Overview:** Describe the need for the proposed project relative to existing technology/practices.
- **Project Description and Objectives:** Outline the purpose and objectives of the proposed project, and describe the technical specifications of the proposed work. Include a declaration if there have been previous phases to this work.
- **Project Partners/Collaborators:** List involved partners and collaborators.
- **Benefits to the Sector and Client:** Highlight benefits such as energy and emissions savings, community benefits, and progress towards emissions reduction targets.
- **Project Schedule:** Include key milestones and timelines.
- **Regulatory Approvals:** Note any required regulatory approvals.
- **Detailed Project Budget:** Itemize costs and indicate other funding sources and in-kind contributions.
- **Risk Analysis:** Provide a simple risk analysis (e.g., SWOT) and proposed mitigations.
- **Key Performance Indicators:** Identify indicators to monitor project success.

6. QUALITY ASSURANCE REVIEW

Projects will be randomly selected for a detailed quality assurance review within 24 months following project completion. Site visits by program staff may be required to verify the installation.

7. APPLICATION SUBMISSION LIMIT

Funding will be limited to one project per applicant organization per round of funding. However, applicants are permitted to reapply in subsequent rounds. For the purposes of this fund, a single “applicant organization” will refer to any set of companies/organizations that are related to each other on the Nova Scotia Registry of Joint Stock Companies (RJSC) or that share the same license or lease holder name.

8. SCORING CRITERIA

All eligible project applications will be evaluated by the FAEEIF team and then presented to the Nova Scotia Minister of Fisheries and Aquaculture for approval. Applications will be evaluated based on the following criteria:

Relevance to Fund Objectives

- Evaluation of first-year GHG emissions reduction per funding dollar spent relative to other applications received in the same funding path. In the case of the Study Path, if no first-year GHG savings exist, potential or enabling GHG savings will be considered.
- Innovation: Consideration provided for first adopters of new technologies or methods in the Nova Scotia fishing industry (enabling future GHG reductions and multiple pathways).

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Co-Benefits and Long-Term Impact

Beyond the core goals of FAEEIF, consideration for additional benefits and positive long-term impact to the sector and/or community was given, e.g., cost effective implementation of innovative technology, knowledge transfer, job creation, economic growth, labour market impacts.

Equity, Diversity, Inclusion and Accessibility (EDIA)

Applications should demonstrate a commitment to equity, diversity (as defined as “Indigenous people, African Nova Scotians, racially visible persons, individuals with disabilities, women in occupations or positions where they are under-represented”), inclusion, and accessibility.

Applying an EDIA lens to your work and project can take many forms. This could include actions like:

- As an applicant, do you self-identify as a member of an equity-deserving group (persons with disabilities, women in occupations or positions where they are under-represented, African Nova Scotians, Indigenous people, and other racially visible persons)?
- As a business, how have you incorporated or applied EDIA to your organization. For example: employing members of an equity-deserving group or having equity and diversity training.
- For your project, do you plan to work with suppliers and trades with representation from an equity-deserving group or with a company that has EDIA commitments; do you have a project that will serve or support equity-deserving communities?

In your application, explain if and how you are applying an EDIA lens to your project.

Our team will collaborate with you to meet these scoring criteria. Please reach out to discuss if this is a challenge in your industry.

Organizational Capacity, Project Budget, and Work Plan

The project team was identified as capable of completing this work. The project timeline is practical, with well-defined milestones, reflecting a comprehensive grasp of the risks and timely completion. The applicant demonstrates a thorough understanding of the project’s expenses and funding strategy. The budget is sensibly allocated to achieve the desired results with satisfactory quality. Minimizing project costs and requested funding will result in a higher score under the \$ / GHG scoring criteria.

- Capacity and risk mitigation: Consideration will be given based on the capability to achieve a reasonable project timeline and effective risk mitigation plan.
- Enabling industry capacity: Consideration will be provided for enabling industry capacity and market competition with suppliers, contractors, and vendors competition.

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ADDITIONAL PATH SPECIFIC SCORING CONSIDERATIONS AND CRITERIA ARE NOTED PER PATH BELOW:

To ensure a fair and comprehensive evaluation of all applications, we have outlined additional path-specific scoring considerations and criteria. By adhering to these specific considerations, applicants can better align their submissions with the program's goals and enhance their chances of success. Detailed criteria for each path are noted below.

STUDY PATH

- How is this funding enabling future work in the FAEEIF fund?
- What are common issues faced by the industry that this study will inform?
- What work will be generated or enabled by this study?
- Will the report be public, and will the raw data collected be shared publicly?

ELECTRIFICATION PATH

- Has due diligence with Transport Canada, marine safety compliance, and insurance requirements been addressed?
- Has data logging been completed and scrutinized?
- There is reasonable justification for going electric/hybrid?
- What is exposure to other vessels in the area?

RENEWABLE PATH

- How many greenhouse gas emissions are offset compared to the energy source replaced?
- Site assessment with potential kWh savings included?
- Will demand response be utilized?

OPERATIONAL EFFICIENCY PATH

- A portion of the project scoring is based on incentive dollars vs first-year greenhouse gas savings. A competitive target is \$140-\$170/tCO₂e.

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9. APPLICATION PROCESS

Prior to the closing of each funding round, applicants are encouraged to reach out to the FAEEIF Fund Navigator with questions or for assistance in the completion of their application package.

1. Submit: The application form for the funding path selected and mandatory inclusions are submitted via email to faeef@efficiencyns.ca in advance of the application deadline.

- **Eligibility review:** FAEEIF confirms eligibility of applicant and completeness of application package.
- **Application quality assurance:** Applications are reviewed by Efficiency Nova Scotia. If additional information is required, you may be contacted.

2. Scoring: The FAEEIF team scores applications.

- Each application is reviewed and scored by the FAEEIF team.
Note: Scoring results will not be shared publicly or with the applicants.
- Top-scored projects in each path are reviewed against expected fund outcomes to validate scoring.
- Funding recommendations presented to the Minister of Fisheries and Aquaculture for approval.

3. Execute: An Energy Manager will contact the successful applicant to advise on the next steps.

- If the application is successful, a claim form will be provided.
- The client executes the project and keeps FAEEIF informed of progress.

4. Claim Payment Request: When the project is finished, the client submits the claim form for incentive payment.

- FAEEIF performs quality assurance to ensure project completion meets the required criteria.
- FAEEIF funding may be prorated if realized energy savings are less than the projected energy savings outlined in the project application.

5. Net Zero Road Map and Operational Energy Data

- Applicants are contacted by Efficiency Nova Scotia to complete a Net Zero Roadmap survey and provide operational energy data.

6. Efficiency Nova Scotia Processes Payment

- Payment is sent to the successful applicant.

Projects must be completed and claims submitted prior to the project completion date noted on the Claim Form. Extensions may be granted at Efficiency Nova Scotia's discretion upon written request as noted on the Claim Form.