Call for Projects

Green Infrastructure Projects that Reduce Greenhouse Gas Emissions

for Climate Change Mitigation in Nova Scotia
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>Program Objectives</td>
<td>5</td>
</tr>
<tr>
<td>Project Eligibility</td>
<td>6</td>
</tr>
<tr>
<td>Guide to Submissions to the Call for Projects</td>
<td>9</td>
</tr>
<tr>
<td>Project Information</td>
<td>10</td>
</tr>
<tr>
<td>Project Implementation</td>
<td>11</td>
</tr>
<tr>
<td>Project Timeline and Financing</td>
<td>13</td>
</tr>
<tr>
<td>Climate Lens</td>
<td>15</td>
</tr>
<tr>
<td>Documentation</td>
<td>16</td>
</tr>
<tr>
<td>Appendix A: Project Details by Category</td>
<td>17</td>
</tr>
<tr>
<td>Appendix B: Information on Funding Structure for the Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program</td>
<td>21</td>
</tr>
<tr>
<td>Appendix C: Information on Eligible Expenditures for the Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program</td>
<td>22</td>
</tr>
<tr>
<td>Appendix D: How to Create A .KML File</td>
<td>24</td>
</tr>
</tbody>
</table>
Overview

Nova Scotia is taking an ambitious path to reduce greenhouse gas (GHG) emissions, with legislated targets for 2030 and 2050. Investments in infrastructure projects that reduce emissions from electricity, transportation and buildings will help us to achieve our targets to mitigate climate change and benefit communities across the province. These infrastructure projects will also help our economy recover from Covid-19 through the creation of local green jobs and by promoting sustainable and inclusive growth.

Given that energy production and use account for over 80 percent of Nova Scotia’s GHG emissions, projects that reduce GHG emissions will involve: using clean energy to power our homes, workplaces, vehicles, and industries; clean energy transportation (electric vehicles); active transportation; convenient transportation systems that move more people by public transit; using energy more efficiently; developing low and no emissions infrastructure; buildings that generate as much power as they use.

The Department of Energy and Mines is calling for applications for potential new infrastructure projects that reduce GHG emissions to submit to the Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program. Through this stream of funding, Nova Scotia will invest in projects that increase capacity to manage more renewable energy, access to clean energy transportation, energy efficiency of buildings and generation of clean energy.

Communities, local governments, businesses, First Nations and non-profits are eligible to apply (see Appendix B for details on eligibility). Funded infrastructure projects will primarily be for public use and benefit. Projects can be multi-year with completion by October 2027 and can be ready to start in 2020 or later.

The Department is calling for applications for potential new infrastructure projects, or a grouping of projects, of $1 million or more total cost, that will reduce GHGs in the following categories:

1. **Buildings**
   Projects focused on net zero (or equivalent), deep energy retrofits, and district heating and cooling systems.

2. **Electricity**
   Projects focused on electric and water heating, First Nations, community and shared solar, and grid technologies and advanced storage.

3. **Transportation**
   Projects focused on clean energy transportation and active transportation networks.

It is important that Nova Scotia’s transition to a greener future creates opportunities for everyone and stimulates inclusive economic growth. Infrastructure projects that lower Nova Scotia’s GHG emissions will also help Nova Scotia recover from the impacts of Covid-19 as the province will prioritize projects that create more green jobs, spark innovation, increase social equity, reduce poverty and enhance community connectedness.

**To submit an application, please follow the Guide to Submissions for the Call for Projects (page 9).**

*Applicants are strongly encouraged to contact the Program Manager to determine if your project is eligible before submission.*

**Deadline to submit is September 9, 2020.**
The Department of Energy and Mines will confirm receipt of information from applicants and may contact applicants for additional information.

Questions can be directed to the Program Manager at lowcarboninfrastructure@novascotia.ca
Program Objectives

Nova Scotia aims to reduce greenhouse gas emissions in the short term and long term and ensure that all Nova Scotians benefit from the transition to a greener future. Great projects will:

- Reduce greenhouse gas emissions

  *Achieve immediate and long-term reductions in carbon emissions to reduce Nova Scotia’s greenhouse gas emissions to at least 53 per cent below 2005 levels by 2030 and net zero by 2050*

Projects will also achieve one or more of the following benefits:

- Generate green jobs and grow our inclusive economy

  *Source local companies and products, increase green jobs, grow our exports, broaden economic and community participation and benefit, develop skills and training for Nova Scotians*

- Elevate Nova Scotian leadership

  *Develop and adopt new approaches or technologies for reducing GHG emissions in Nova Scotia and grow Nova Scotian capacity to lead transformative action on climate change at the national and global levels*

- Enhance social equity and reduce poverty

  *Develop avenues for sustained positive outcomes for First Nations, African Nova Scotians, new immigrants, public housing residents and people living on low incomes, and implement solutions that make life more affordable for low income individuals and families*

- Build connected, resilient, and safe communities and support healthy populations

  *Develop and strengthen built environments that enable people to better connect with each other as well as services and employment and increase infrastructure that enhances the well-being of people across their lifespan*
Project Eligibility

Eligible Applicants
For projects to be eligible for federal funding under the Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program the ultimate recipient must be one of the following:

- A municipal or regional government in Nova Scotia;
- A public sector body that is established by or under provincial statute or by regulation or is wholly-owned by Nova Scotia, or a municipal or regional government;
- A public or not-for-profit institution that is directly or indirectly authorized, under the terms of provincial or federal statute, or royal charter, to deliver post-secondary courses or programs that lead to recognized and transferable post-secondary credentials when working in collaboration with a municipality.
- A for-profit organization, working in collaboration with one or more of the entities referred to above or a First Nations government listed below;
- Not-for-profit organizations
- A First Nations government as defined:
  - A band council within the meaning of section 2 of the Indian Act;
  - A First Nation, Inuit or Métis government or authority established pursuant to a self-government agreement or a comprehensive land claim agreement between Her Majesty the Queen in Right of Canada and an Indigenous people of Canada, that has been approved, given effect and declared valid by federal legislation;
  - A First Nation, Inuit or Métis government that is established by or under legislation whether federal or provincial that incorporates a governance structure; and
  - A not-for-profit organization whose central mandate is to improve First Nations outcomes, working in collaboration with one or more of the First Nations entities referred to above, a municipality, or Nova Scotia.

Interested applicants who have a potential project but do not have an eligible partner may still apply but must detail how they plan to secure an appropriate partnership.

Ineligible projects include:

- inter-city bus, rail, port, and ferry infrastructure that are not part of a public transit system
- energy retrofit projects, with some exceptions (see Appendix A)
- emergency services infrastructure
- or projects eligible under the Low Carbon Economy Fund

Eligible Categories
Applications for new infrastructure projects that reduce GHGs will be accepted in the following categories:

Buildings
Increase the energy efficiency of new and existing buildings

A priority focus will be on projects that advance the objectives of the National Housing Strategy and projects that support not-for-profit organizations that offer housing to vulnerable populations and buildings projects.
1. Net Zero Energy Ready (or Equivalent) or Net Zero-Carbon for New Buildings

A Net Zero Energy (NZE) building produces at least as much energy as it consumes on an annual basis and uses as much energy as it can produce from on-site renewable energy. A Net Zero Energy Ready building is highly efficient and designed to operate with on-site renewables in the future. Net Zero-Carbon buildings may have a high level of embedded carbon such as a mass timber wood framed construction.

2. Deep Energy Retrofits

Projects that aim to retrofit an existing building or buildings stock that will lead to an overall improvement in the building performance to reduce energy use by at least 50% from the building baseline energy use.

3. Community Energy Systems

A community energy system, or district energy system, supplies renewable heating and/or cooling to multiple buildings from a centralized plant or from several interconnected but distributed plants.

**Electricity**
Increased capacity to manage more renewable energy and increased generation of clean energy including:

4. Electrification

Broad deployment of electric heating and water heating. For example, projects that replace oil combustion with no carbon fuels (e.g. controlled electric thermal storage (ETS) and/or heat pumps). Projects that demonstrate methodologies or processes that can be scaled to larger distributions or replace large consumers of oil and result in limited negative impacts to the electricity system are of particular interest.

5. First Nations, Community and Shared Solar

Solar projects that will be owned by an eligible First Nations, Municipal, Non-Profit, or community organization where the identified community and/or individuals will benefit from the reduced costs or sale of generated electricity. Projects may be grid connected, off-grid (behind the meter), and/or integrated with battery systems. Multiple small projects may be grouped together under a single applicant to reach the minimum $1M threshold.

6. Grid Technologies and Advanced Storage

Projects that develop or implement technologies that work with the electrical grid to respond to changing electric demand. Also, advanced storage projects to improve grid efficiency, reliability and enable increased integration of renewable energy. An example of an advanced storage project includes the broad deployment of in-home batteries that provide grid benefits.

**Transportation**
Increased access to clean energy transportation including:

7. Clean Energy Transportation

Projects that transition Nova Scotia to clean energy vehicles and associated infrastructure.
8. Active Transportation Networks

Projects that build a central and interconnected network of active transportation routes to facilitate walking, biking, or rolling to/from key community destinations without relying on a car.
GUIDE TO SUBMISSIONS
FOR
THE CALL FOR PROJECTS
Application Information Required

Please submit your application to lowcarboninfrastructure@novascotia.ca using the fillable pdf document format that includes the following information:

**Project Information**

<table>
<thead>
<tr>
<th>PROJECT TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>List the title of the project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>APPLICANT NAME AND APPLICANT TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and the type of applicant (applicant types include: Municipality, First Nation, Non-Profit Organization, For-Profit organization) that is submitting the project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ULTIMATE RECIPIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Recipient may be different from applicant. It is the entity that is eligible to receive contribution funding for a project. It is necessary for applicants to identify the Ultimate Recipient if the applicant is not able to receive contribution funding. Review Appendix B to identify which is the eligible category of ultimate recipient for your project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROJECT LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the project location and provide a visual KML file with the project location(s).</td>
</tr>
</tbody>
</table>

KML file information:
- Overview of KML files
- How to create a KML file guide in Appendix D

<table>
<thead>
<tr>
<th>PROJECT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide an overview of the project purpose, project deliverables, the scope of the project (all major quantifiable components), the team that will be leading the project and any other relevant information.</td>
</tr>
</tbody>
</table>

Include supporting maps, illustrations, etc., as appropriate.

<table>
<thead>
<tr>
<th>PROJECT CATEGORY AND INFORMATION REQUIRED FOR PROJECT CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the category and sub-category of the project. Provide all information required about the project, as per the required information for the project category in Appendix A.</td>
</tr>
</tbody>
</table>
Project Implementation

PROJECT PARTNERSHIPS
Identify partners or desired partners for the development and implementation of the project. Describe how partners involved will benefit from the project.

ASSET OWNERSHIP AND OPERATION
Indicate if the Ultimate Recipient will own and operate the asset(s). If not, provide additional information regarding asset ownership and operation. Include the name and type of entity and a brief description of the arrangement.

PROJECT READINESS
Describe the readiness of your project, including relevant background information and the current stage of development.

Background information may include history as well as previous study, planning or design work, along with municipal/provincial/federal contributions.

For the current stage of development, indicate:
- status of planning and design work
- any approvals, permits, authorizations, provisions of services or assets including construction of related works required from any public or private sector stakeholders and the process that will be followed to secure these
- any other project development efforts that are completed or underway

ENGAGEMENT AND BENEFITS
Describe how the community and/or other key stakeholders have been engaged in the development of the project or project benefits.

Indicate any significant public concerns with the project, and how these have been or will be addressed.

Describe plans to employ Nova Scotians as well as any initiatives within the project that aim to increase employment opportunities for groups including apprentices, First Nations, African Nova Scotians, Acadian Nova Scotians, women, persons with disabilities, veterans, youth and New Canadians. Indicate any engagement with groups, hiring practices, education and training initiatives, liaison positions, and communication plans that will be implemented.

Describe plans to contract organizations based in Nova Scotia as well as any initiatives within the project that aim to increase contracting opportunities for Nova Scotia small and medium enterprises as well as social enterprises. Indicate any supplier engagement initiatives, supplier development initiatives, procurement practices, and communication plans that will be implemented.
Provide information on how this project will achieve one or more of the following benefits:

- develop and adopt new approaches or technologies for reducing GHG emissions in Nova Scotia and grow Nova Scotian capacity to lead transformative action on climate change at the national and global levels
- implement solutions that make life more affordable for low income individuals and families
- develop avenues for sustained positive outcomes for First Nations, African Nova Scotians, new immigrants, public housing residents and people living on low incomes
- develop and strengthen built environments that enable people to better connect with each other as well as services and employment
- decrease dependence on personal vehicles
- increase infrastructure that enhances the well-being of people across their lifespan
# Project Timeline and Financing

## PROJECT START DATE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

## PROJECT TIMELINE

Provide a detailed description of the project’s schedule, including an overall description and details in the table below.

### Start and end dates for the project’s key activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preliminary engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required permits (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tender(s) period for construction (RFQ, RFP, Contract Award)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHG Mitigation Assessment and Climate Change Resilience Assessment (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Assessment (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal Consultation (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Activity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Activity**

**Other Activity**
SOURCE OF FUNDS

Complete the table below. The total of all funding sources must add up to the total project costs (and not only eligible costs). The program cost sharing and federal stacking limits must be respected. See Appendix C for more information on eligible expenditures.

Source of Funds for the Project

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>Amount ($)</th>
<th>Secured (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal Contribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provincial Contribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultimate Recipient Contribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Contribution (Specify, one row for each source)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Provide any additional details about funding for the project. Include information on how the Ultimate Recipient will finance its funding contribution to the project.

FISCAL YEAR BREAKDOWN

Fiscal Year Breakdown of Total Project Costs

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2020-21</th>
<th>2024-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021-22</td>
<td>2025-26</td>
<td></td>
</tr>
<tr>
<td>2022-23</td>
<td>2026-27</td>
<td></td>
</tr>
<tr>
<td>2023-24</td>
<td>2027-28</td>
<td></td>
</tr>
</tbody>
</table>
Climate Lens

GHG REDUCTIONS

Describe how the project will lower GHG emissions.

Where possible, projects should estimate GHG emissions reductions, and include the method and assumptions used to estimate the GHG impact.

- Estimate of annual GHG reductions after the project is complete
- Estimate of lifetime GHG reductions over the lifespan of the project

Please follow Infrastructure Canada Climate Lens Guidance to provide additional information on GHG mitigation and climate resilience assessments.

| Have you included a **GHG mitigation assessment** with your project application? *(Not required at provincial application stage but required at federal application stage.)* | YES or NO |
| Have you included a **Climate resilience assessment** with your project application? *(For projects with total estimated eligible expenditures of $10M or more, this assessment is required at or after federal application stage depending on the project.)* | YES or NO |
| Expected lifespan of the asset* | Indicate the year in which the expected lifespan of the asset begins |
| Confirm that the relevant attestation(s) has been completed by a qualified assessor or validator | YES or NO |

*If the project involves multiple assets, please indicate the total lifespan for all assets assessed under the Climate Lens.

### GHG Mitigation Assessment

<table>
<thead>
<tr>
<th><strong>2030 GHG Results</strong></th>
<th><strong>Lifetime GHG Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline scenario emissions, cumulative to 2030</td>
<td>t / kt / Mt</td>
</tr>
<tr>
<td>Estimated project emissions, cumulative to 2030</td>
<td>t / kt / Mt</td>
</tr>
<tr>
<td>Net emissions</td>
<td>REDUCTION or INCREASE</td>
</tr>
</tbody>
</table>
### Climate Resilience Assessment*

Required for projects with total estimated eligible expenditures of $10M or more

Have risks associated with climate change and extreme weather events in the design, location and planned operation of the project been considered? *Note, these risks could be rapid (e.g. a heavy rainfall) or gradual (sea-level rise) and present or anticipated threats associated with climate change.*

<table>
<thead>
<tr>
<th>YES or NO</th>
</tr>
</thead>
</table>

What hazards, associated with climate change and extreme weather events, were identified which may impact the project’s integrity and its ability to provide sustained service through its design life? *Select all that apply.*

<table>
<thead>
<tr>
<th>Storm surges</th>
<th>Increased frequency of freeze-thaw cycles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher tides</td>
<td>Increased rainfall</td>
</tr>
<tr>
<td>Sea level rise</td>
<td>Increased overland flooding</td>
</tr>
<tr>
<td>Coastal erosion</td>
<td>Increased snow loads</td>
</tr>
<tr>
<td>Salt water intrusion</td>
<td>Increased wind speeds or tornadoes</td>
</tr>
<tr>
<td>Heat waves or heat island effect</td>
<td>Hurricanes</td>
</tr>
<tr>
<td>Permafrost degradation</td>
<td>Hail</td>
</tr>
<tr>
<td>Drought</td>
<td>Windstorms</td>
</tr>
<tr>
<td>Wildland fires</td>
<td>Ice storms</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

Describe key measures or features of the project that incorporate climate change considerations.

### Documentation

#### DOCUMENTATION REQUIREMENTS

Provide the following documentation as attachments to your submission:

- additional information on budget
- KML files
- proof of permits relevant to the project
- relevant feasibility studies or background information on the project
- letters/emails of support from community or partners
- any additional relevant information
Appendix A: Project Details by Category

Please provide requisite information as per the category.

Buildings

Increase the energy efficiency of new and existing buildings

A priority focus will be on projects that advance the objectives of the National Housing Strategy and projects that support not-for-profit organizations that offer housing to vulnerable populations and buildings projects.

1. Net Zero Energy Ready (or Equivalent) and Net Zero-Carbon for New Buildings

A Net Zero Energy (NZE) building produces at least as much energy as it consumes on an annual basis and uses as much energy as it can produce from on-site renewable energy. A Net Zero Energy Ready Building is highly efficient and designed to operate with on-site renewables in the future. Net Zero-Carbon buildings may have a high level of embedded carbon such as a mass timber wood framed construction.

Information required:

- Energy model (optimized)
- Ongoing monitoring tools and plan
- Commissioning schedule (if possible)
- Incremental costs for implementing energy conservation measures (compared to 2017 building code)
- Net Present Value (if possible, NPV = Energy Savings + Payments (loans or mortgage) + Building Maintenance)

2. Deep Energy Retrofits

Projects that aim to retrofit an existing building or buildings stock that will lead to an overall improvement in the building performance to reduce energy use by at least 50% from the building baseline energy use.

Information required:

- Type of building (including building use, heated floor area vs. total floor area)
- Baseline energy consumption (kWh or GJ/total floor space m2/yr)
  - Energy type before project (equipment and appliances: particularly space heating and water heating equipment (type, age, energy efficiency, fuel type); heating, ventilation, and electrical appliances)
- Projected baseline and air tightness of the building after retrofits
- # of building(s) involved
- Location of building(s)
- Building design information (insulation on walls, floors if known, gaps around doors, windows, and vents including openings between the interior and the exterior of the building)
- Types of upgrades
  - Heating system (must be high efficiency, such as heat pumps, electric thermal storage, variable refrigerant flow)
  - Ventilation system
  - Insulation
- Air sealing
- Water system
- Windows
- Lighting
- Energy audit or RetScreen analysis (if available)

3. Community Energy Systems

A community energy system, or district energy system, supplies renewable heating and/or cooling to multiple buildings from a centralized plant or from several interconnected but distributed plants. These clean energy systems can generate thermal energy from clean sources such as waste heat, seawater, mine water, among others.

Information required:
- Owner of system and business type (i.e. utility, developer, municipality)
- Number and size of buildings
- Baseline energy consumption and energy type before project (MWh or GJ/total floor space m² per yr.)
- System details: estimated size of system (MWh or GJ/total floor space m² per yr.)
  - District heating projects must have a minimum of 1.5 MWh per linear meter of pipe
- Proposed source of energy

Electricity

Increased capacity to manage more renewable energy and increased generation of clean energy including:

4. Electrification

Broad deployment of electric heating and water heating. For example, projects that replace oil combustion with no carbon fuels (e.g. controlled electric thermal storage (ETS) and/or heat pumps). Projects that demonstrate methodologies or processes that can be scaled to larger distributions or replace large consumers of oil and result in limited negative impacts to the electricity system are of particular interest.

Information required:
- Type of technology replaced, and technology deployed
- Project financing and ownership structure
- Intended benefits, including at minimum cost and GHG savings
- Evidence of impact on the electrical grid, including peak load and volume of energy

5. First Nations, Community and Shared Solar

Solar projects that are owned by an eligible First Nations, Municipal, Non-Profit, or community organization where the identified community and/or individuals will benefit from the reduced costs or sale of generated electricity. Projects may be grid connected, off-grid (behind the meter), and/or integrated with battery systems. Multiple small projects may be grouped together under a single applicant to reach the minimum $1M threshold.

Information required:
- Site description (PID, land/building use, access rights, ground/roof mount, distance from community)
- Resource description (insolation, shading, orientation, tilt)
• System size (kW AC) and estimated annual production (kWh)
• Quote and/or estimated costs for installation of proposed project (equipment, labour, etc.)
• If applicable:
  o Describe your project’s proposed interconnection pathway (such as net metering)
  o Describe your proposed business model/plan for:
    ▪ Recruiting participants to the project
    ▪ Aggregating participant demand
    ▪ Returning value to project participants
  o Describe the associated energy storage system for the proposed project

6. Grid Technologies and Advanced Storage

Projects that develop or implement technologies that work with the electrical grid to respond to changing electric demand. Also, advanced storage projects to improve grid efficiency, reliability and enable increased integration of renewable energy. An example of an advanced storage project includes the broad deployment of in-home batteries that provide grid benefits.

Information required:
• Storage type
  o Battery
  o Thermal
  o Pumped
  o Other
• Total capacity and duration of storage
• Description of control system and control objectives
• Resilience and reliability benefits expected
• Grid benefits expected

Transportation

Increased access to clean energy transportation including:

7. Clean Energy Transportation

Projects that transition Nova Scotia to clean energy vehicles and associated infrastructure for public transit and heavy-duty vehicle fleets.

Information required:
• Vehicle type and quantity
• Fleet details (number of vehicles, battery size if applicable, passenger capacity if applicable)
• Charging or fueling infrastructure
• How this project supports the fleet transition to zero-emission vehicles
• Approach to fleet operations
• Intended service area coverage
• Considerations for accessibility

8. Active Transportation Networks
Projects that build a central and interconnected network of active transportation routes to facilitate walking, biking, or rolling to/from key community destinations without relying on a car.

Information required:
- The type of facilities that will be built (bike lanes, multi-purpose trails, etc.),
- # of kms of network that will be built, key destinations that will be connected
- How the network will meet all ages and abilities (AAA) standards
- How this project relates to relevant active transportation plans, municipal plans, or community priorities
Cost Sharing

The federal and provincial contributions depend on the type of applicant. The Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program is claims based. Applicants will need to be able to incur and pay costs prior to submitting claims for reimbursement. Cost over-runs and ineligible costs will be the responsibility of the applicant.

Municipalities Ultimate Recipient Projects

Funding is available up to 73.33% of eligible project costs (40% Government of Canada, 33.33% Province of Nova Scotia)

Indigenous Ultimate Recipient Projects

Funding is available up to 75% of eligible project costs (75% Government of Canada)

Not-For-Profit Projects

Funding is available up to 40% of eligible project costs (40% Government of Canada)

- Not-For-Profit organizations are encouraged to submit in collaboration with one or more municipal, regional, or Indigenous government(s).

For-Profit Projects

Funding is available up to 25% of eligible project costs (25% Government of Canada)

- For-Profit organizations may submit one application and must work in collaboration with one or more municipal or regional government(s), public sector body, or Indigenous government(s).

The province will consider potential funding for Indigenous, Not-for-Profit and For-Profit projects on a case by case basis.
Appendix C – Information on Eligible Expenditures for the Climate Change Mitigation Sub Stream of the Investing in Canada Infrastructure Program

**Eligible Expenditures**

Public infrastructure is defined as tangible capital assets primarily for public use and/or benefit. Infrastructure investments will support public infrastructure, with flexibility for related project planning. Eligible expenditures are costs considered by Infrastructure Canada to be direct and necessary for the successful implementation of an eligible project, excluding those explicitly identified in the Ineligible Expenditures section below.

These eligible expenditures may include capital costs, design and planning, as well as costs related to meeting specific program requirements (e.g. climate lens). Project expenditures will only be eligible as of project approval, except for expenditures associated with climate lens assessments, which are eligible before project approval, but can only be reimbursed when a project is approved.

**Ineligible Expenditures**

a) Costs incurred before project approval and all expenditures related to contracts signed prior to Project approval, except for expenditures associated with climate lens assessments;

b) Costs incurred for cancelled projects;

c) Costs of relocating entire communities;

d) Land acquisition;

e) Leasing land, buildings and other facilities; leasing equipment other than equipment directly related to the construction of the project; real estate fees and related costs;

f) Any overhead costs, including salaries and other employment benefits of any employees of the eligible recipient or ultimate recipient, its direct or indirect operating or administrative costs and more specifically its costs related to planning, engineering, architecture, supervision, management and other activities normally carried out by its staff, with the following exception:
   - The incremental costs of employees of an eligible recipient and/or ultimate recipient may be included as eligible expenditures under the following conditions:
     - The eligible recipient and/or ultimate recipient can demonstrate that it is not economically feasible to tender a contract; and
     - The arrangement is approved in advance and in writing by Canada.

g) Financing charges, legal fees, and loan interest payments, including those related to easements (e.g. surveys);

h) Any goods and services costs which are received through donations or in kind;

i) Provincial sales tax, goods and services tax, and harmonized sales tax for which the ultimate recipient is eligible for a rebate, and any other costs eligible for rebates;
j) Costs associated with operating expenses and regularly scheduled maintenance work;

k) Costs related to furnishing and non-fixed assets which are not essential for the operation of the asset/project; and

l) All capital costs, including site preparation and construction costs, until the federal government has confirmed that environmental assessment and Aboriginal consultation obligations have been met and continue to be met.
Appendix D – How to Create A .KML File

This guide will walk you through the steps to create a .KML file by using Indigenous and Northern Affairs Canada’s (INAC) publicly available Aboriginal & Treaty Rights Information System (ATRIS) web-based application or Google Earth’s free desktop application. Other geographic software packages like ArcGIS or QGIS may also be used to create the file, although this guide provides instructions for the use of ATRIS and Google Earth. Using a .KML allows a variety of point, polygon, and line data to be represented spatially with detail and consistency.

Using ATRIS

1. Navigate to INAC’s publicly available ATRIS web-based application using this link: http://sidait-atris.aadnc-aandc.gc.ca/atriis_online/Content/Search.aspx

2. Navigate to the project location in the map viewer, either by clicking, dragging, and scrolling to zoom, or using the various search options available in the ‘Search By:’ drop down menu.

3. Draw your project on the map in the exact location using the “Draw on map” tools located in the top right of the ATRIS interface. You may draw as many components of varying types (point*, line, polygon) as necessary to be saved as one single .KML file.

*ATRIS users will not be able to create a geometry “point” in GIS terms, but the “Circular Search” option allows users to create circular polygons able to mimic points in terms of scale.
Choose the appropriate drawing tool for the type of component you are drawing:

a. Line search
   - Click as many times as necessary to create a line that represents your linear project feature. Double click to complete.
   - Examples include: roads, sewer lines, railways, pipelines, trails, transmission lines, etc.

b. Polygon search
   - Click as many times as necessary to create a closed polygon that represents the project feature. Double click to complete.
   - Examples include: building footprints, vegetation cuts, sewer/wastewater lagoons, etc.

c. Circular search
   - Click on the map to automatically create a circle. To create a smaller circle similar to a point, zoom in as close as possible on the map before clicking. Alternatively, click and drag, then release to draw a circular project feature yourself.
   - Examples include: wells, outfalls, culverts, etc.

If at any time you wish to erase anything you’ve drawn, use the following two options:

- **Erase by Extent**: Click and drag to create a shape around what you want to delete. Anything intersecting the box will be deleted when you release.
- **Global Erase**: This will erase everything on the map. Click OK when prompted to clear the map viewer and start fresh.

4. Once you are satisfied with the drawn representation of your project, click the ‘Export’ button.

   **Export**: The .KML will download as ‘SearchAreas.kml’ (unless you have specified otherwise) to the location where your browser saves downloads. The file name can be changed to something that reflects the project name before sending it.

Your file is now ready to be uploaded or sent via email.
3. Draw your project on the map in the proper location using the placemark, polygon, and path tools (pictured below). You may draw as many components of varying types (point, line, polygon) as necessary.
Choose the appropriate drawing tool for the type of component you are drawing:

a. Placemark: point project components
   - Examples include: wells, outfalls, culverts, etc.
   - Clicking this button will add a placemark to the map and bring up a corresponding dialogue box (see below).
     - You can move the placemark by clicking and dragging it to the desired location, or entering the desired latitude and longitude coordinates in the dialogue box (a).
     - You can rename the placemark by changing the entry in the ‘Name’ field of the dialogue box (b).
     - Click ‘OK’ when finished (c).

b. Polygon: project components that consist of an area of any shape
   - Examples include: building footprints, vegetation cuts, sewer/wastewater lagoons, etc.
   - Clicking this button will bring up a dialogue box and a crosshair cursor (see below). Click as many times as necessary to create a closed polygon that represents your project feature.
     - You can rename the polygon by changing the entry in the ‘Name’ field of the dialogue box (a).
     - Click ‘OK’ when finished (b).
c. Path: linear project components
   - Examples include: roads, sewer lines, railways, pipelines, trails, transmission lines, etc.

   Clicking this button will bring up a dialogue box and a crosshair cursor (see below).
   Click as many times as necessary to create a line that represents your project feature.

   ![Dialogue box and crosshair cursor]

   You can rename the polygon by changing the entry in the ‘Name’ field of the dialogue box (a).
   Click ‘OK’ when finished (b).

   All drawn components will appear in the ‘Places’ sidebar under the ‘Temporary Places’ folder.

4. Export the shapes to .KML to be shared.

   * Warning: If you have multiple shapes, they will need to be exported individually as separate .KML files.
a. Right click on the component in the ‘Places’ sidebar and click ‘Save Place As...’.

b. Change the file type from .KMZ to .KML using the ‘Save as type:’ drop down menu.

c. Choose the location where you would like to save the file in the file browser. You will need to locate it later on to send it.

Click ‘Save’ when you are finished. You are now ready to upload or email the file.

*Repeat Step 4 for as many project components as you have created if you have more than one.