

# The Climate Lens: General Guidance

# Table of Contents

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1.0 INTRODUCTION.....	3
1.1 What is the Climate Lens? .....	3
1.2 Applicable Programs .....	4
1.3 Cost Eligibility .....	5
1.4 Responsible Party .....	5
1.5 Assessing the Climate Lens.....	5
2.0 CLIMATE LENS GUIDANCE .....	7
2.1 Step by Step Instructions.....	7
2.2 Submission of the Climate Lens.....	12

# 1.0 INTRODUCTION

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The purpose of this document is to provide guidance to those who may need to undertake a Climate Lens. The objectives of this guidance are to:

1. Explain the purpose of the Climate Lens and which projects are subject to the requirement;
2. Provide information on when and how to submit completed Climate Lenses to Infrastructure Canada;
3. Provide step by step instructions on how to complete the various sections of the Climate Lens.

## 1.1 What is the Climate Lens?

The Government of Canada is committed to exceeding its 2030 greenhouse gas reduction target, establishing a cleaner, more competitive and resilient economy and getting Canada to net-zero emissions by 2050. The Climate Lens is a key tool for assessing the climate impacts of the infrastructure being funded through the Investing in Canada Infrastructure Program as part of Canada's broader climate goals. The tool encourages Applicants to consider how their projects can reduce GHG emissions and increase resilience to climate change, which benefits their communities and creates jobs.

The Climate Lens is a project-level requirement applicable to Infrastructure Canada's Investing in Canada Infrastructure Program (ICIP) and Disaster Mitigation and Adaptation Fund (DMAF). The main goal of the Climate Lens is to raise awareness of climate change risks and impacts associated with projects and encourage improved choices by project planners, designers and decision-makers. The Climate Lens also supports Infrastructure Canada in measuring its progress towards meeting its climate goals.

The Climate Lens has two key sections: **GHG Emissions and Mitigation**, which looks at the anticipated greenhouse gas (GHG) emissions impact of an infrastructure project; and **Climate Resiliency**, which examines the risk and resilience of the project to a climate change related disruption or impact.

The new Climate Lens simplifies the completion process while allowing Applicants to evaluate GHG emissions and resilience to the impacts of climate change early in the planning process.

## 1.2 Applicable Programs

The table below identifies the programs, streams and sub-streams to which the Climate Lens applies and lists the project value thresholds at which the Climate Lens is required.

Projects submitting under the Green Infrastructure – Climate Change Mitigation sub-stream of ICIP are expected to demonstrate an overall reduction in emissions compared to the business-as-usual (BAU) scenario. Projects submitting under the Green-Infrastructure – Adaptation and Resilience sub-stream are expected to demonstrate an overall increase of resiliency to climate impacts.

**Table 1.** Thresholds for Climate Lens Requirement

Programs and Streams	Climate Lens	When to submit
<b>Investing in Canada Infrastructure Program (<i>Integrated Bilateral Agreements</i>)</b>		
<b>Green Infrastructure – Climate Change Mitigation sub-stream</b>	All projects	Climate Lens due at time of application.
<b>Green Infrastructure – Adaptation, Resilience and Disaster Mitigation sub-stream</b>	All projects	Climate Lens due at time of application.
<b>Other streams and Sub-streams (Environmental Quality, Public Transit, Community, Culture and Recreation, Rural and Northern Communities)</b>	If total eligible project costs are \$10M or greater	Climate Lens due at time of application.
<b>National Programs</b>		
<b>Disaster Mitigation and Adaptation Fund</b>	All projects	Climate Lens due before first federal payment. (See Note 1)

Note 1. For Applicants to the Disaster Mitigation and Adaptation Fund, considerations of climate resiliency are already integrated into the application process. Projects approved under DMAF must complete a GHG mitigation assessment before first federal payment, and may continue to follow [previous guidance](#).

Note 2. Applicants from Quebec required to complete a Climate Lens are to follow the guidelines for submission as outlined in their *Integrated Bilateral Agreement* (for ICIP) or the relevant agreement (for DMAF).

## 1.3 Cost Eligibility

Infrastructure Canada strongly encourages Applicants to perform analyses informed by best practices regarding GHG mitigation and climate risks and resilience in their projects. For this reason, the costs of undertaking the Climate Lens will be deemed eligible for cost-sharing for all projects approved for federal funding. This includes all associated costs incurred such as preparation and supporting analysis in keeping with best practices. Any costs incurred to undertake GHG Mitigation and/or Climate Resilience assessments under previous versions of the Climate Lens guidance remain eligible for reimbursement, except where own-force labour is used.

Should Applicants to the ICIP with projects beneath the \$10M threshold wish to complete a Climate Lens on an optional basis, these costs would be eligible for cost-sharing if the project is approved for federal funding, as long as the Climate Lens conforms to the requirements outlined here and is submitted to Infrastructure Canada at the time of application.

Since costs are only eligible for cost-sharing for federally approved projects, municipalities, Indigenous communities, and other Applicants are encouraged to engage regularly with the relevant province or territory to determine their project's likelihood of prioritization before incurring costs related to undertaking a Climate Lens.

## 1.4 Responsible Party

It is the Applicant's responsibility to ensure that the Climate Lens is completed by someone with appropriate qualifications and knowledge of the project, as determined by the Applicant. This could be the Applicant, the Applicant's design consultant, or another consulting body. If the Applicant determines that the needed qualifications are not available on the project team, Infrastructure Canada recommends engaging a qualified professional, such as a professional engineer, GHG accounting professional, or registered professional planner. Infrastructure Canada is able to provide further advice and recommendations on selecting an appropriate professional at the Applicant's request.

## 1.5 Assessing the Climate Lens

Where required, on a case by case basis, Infrastructure Canada may follow up on the results of the Climate Lens to confirm the information submitted or to request further detail. Climate Lenses for projects in the Climate Change Mitigation and Adaptation, Resilience and Disaster Mitigation sub-streams of the Investing in Canada Infrastructure Program will be assessed to ensure program requirements have been met.

Applicants should retain the information used to complete the Climate Lens. Follow up information that may be requested includes calculations, assumptions and resources used to assess GHG emissions and climate risks.

Applicants are encouraged to contact Infrastructure Canada for further assistance and/or links to other resources as necessary.

## 2.0 CLIMATE LENS GUIDANCE

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The Climate Lens is divided into four sections:

1. **Project Overview** provides administrative information and a description of the project;
2. **GHG Emissions & Mitigation** looks at the anticipated greenhouse gas (GHG) emissions impact of the infrastructure project;
3. **Climate Resiliency** examines the risk and resilience of the project to a climate change related disruption or impact;
4. **Climate Objectives** provides additional and supporting information to the overall climate objectives of the project and the Applicant.

The following section provides guidance on how to complete each section of the Climate Lens. Additional guidance on acceptable approaches to quantifying GHG emissions reductions and the identification of climate risks is provided on Infrastructure Canada's website.

Note that ICIP projects from Quebec are to continue to follow the provincial guidelines to GHG quantification as outlined in the Canada-Quebec Integrated Bilateral Agreement.

### 2.1 Step by Step Instructions

Applicants are to follow the guidance provided in this section to complete the Climate Lens.

<b>1.0 PROJECT OVERVIEW</b>
<b>1.1 Project Title:</b> <i>Title of your project.</i>
<b>1.2 Ultimate Recipient:</b> <i>Full legal identification of the primary entity that is undertaking the project.</i>
<b>1.3 Project Description:</b> <i>Present a brief description of the project and project activities.</i> <ul style="list-style-type: none"><li>• Describe the product or service provided by the project, including a description of any project-specific technologies that will be implemented.</li><li>• Provide the timeline (anticipated project operation start and end dates).</li><li>• Describe the services or output that will be provided and all major activities that will occur on the project site. The type(s) of technologies that will be used can also be described here. The project description lays out the foundation for the types of activities that may be subject to climate risk, or which may release or sequester GHGs from the project. These activities must be quantified in the Climate Lens.</li></ul>

## 2.0 GHG EMISSIONS & MITIGATION

### 2.1 Are you using, or are you considering using, any best practices, GHG mitigation measures or clean technologies in the design of your project? Yes No

If yes, provide examples of project elements (e.g., installation of solar panels) and how they will improve your project and make your community more sustainable. If no, why not?

- Best practices may include:
  - Using clean technologies such as wind, solar, or geothermal energy or energy storage such as batteries, whether alone or integrated into other assets (e.g., a building);
  - Buildings that: are Green Design (LEED) certified; with Energy Star ratings above 75; and/or use lower-carbon forms of heating and cooling such as heat pumps;
  - Vehicles using clean fuels or zero-emission vehicles.

### 2.2 Have you consulted, or will you consult, any international standards or GHG guidance to understand the GHG impact of the project? Yes No

If yes, list the consulted resources. If no, why not?

- There are a variety of resources that can be consulted to help quantify the GHG emissions/reductions from your project. These include:
  - ISO 14064 : 1-3 standard series
  - WRI GHG Protocol
  - Federation of Canadian Municipalities: Guidebook on Quantifying GHG Reductions at the Project Level

### 2.3 Do you expect that this project will result in GHG emissions reductions?

Yes  No

If yes, specify your estimated typical annual GHG emissions reductions. If no, why not?

- Many projects could result in GHG emissions reductions. Typical projects that are designed to reduce GHG emissions include renewable energy projects, interties that connect higher carbon-intensity grids to lower carbon-intensity electricity generation, retrofits, and mass transit projects.
- Other projects that may have GHG emissions reductions include those exceeding standard practices, such as a new building that is implementing energy efficiency measures above the building codes, or a wastewater treatment facility that is installing a new biofiltration process that reduces methane emissions beyond standard industry practice..
- The standard equation to calculate GHG emission reductions is the following:

$$\text{Baseline Emissions} - \text{Project Emissions} = \text{GHG Emission Reductions}$$

Where:

The Baseline is the "business as usual" (BAU) scenario or hypothetical reference case against which the GHG performance of the project is measured.

The Project represents the new project applying for funds under Infrastructure Canada's funding programs.

- Under the Climate Lens, we are seeking the **typical annual GHG emissions reductions** expected from the project. If you are aware of changes to the project activities which may significantly impact the expected annual GHG emissions reductions in 2030, please note them.
- Applicants to the Green Infrastructure – Climate Change Mitigation sub-stream of ICIP are expected to demonstrate an overall reduction in emissions compared to the BAU scenario.
- As an additional tool to assist applicants, Infrastructure Canada will provide sector-specific guidance for calculating GHG emission reductions for certain project types. This guidance will be made available in phases on Infrastructure Canada's website. If your project type is not currently supported by Infrastructure Canada's available sector-specific guidance, you may consider referring to WRI or ISO 14064-2 for support in completing GHG quantification.
- If you are unable to estimate the GHG emission reductions at this time, please explain why (e.g., methodology not yet established, missing project details due to project stage) and the estimated date at which the information will be submitted. An estimate of GHG emissions reductions in 2030 will be required before first claim.
- On a case-by-case basis, Infrastructure Canada may follow up to request more information on how GHG estimates were derived or against what baseline scenario emissions were estimated if the justification is not clear.
- Applicants can refer to the Climate Lens website for additional resources on GHG mitigation.

### 3.0 CLIMATE RESILIENCY

#### 3.1 Is the project in a location that is at risk or vulnerable to climate-influenced natural hazards such as flooding, wildfire risk, permafrost thaw or coastal erosion?

Yes  No

*If yes, provide a brief description of all of the current and future climate risks facing the project over its entire lifespan.*

- For example:
  - Wildfires will present a risk to a Community Center Project due to its location near a forested area that is experiencing increased occurrence of drought and increasing temperatures; or
  - Projected increases in rainfall will present a high risk to bus shelters as it can lead to flash flooding that can cause damage to the physical infrastructure, obstruct access for bus users, cause disruptions to maintenance work, and result in delays of services.
- If applicable, list any methodology that was used to assess future climate risks such as ISO 31000 and PIEVC.
- Infrastructure Canada may follow up if known potential climate hazards are missing (e.g., a community center on a coastline is not considering risk of sea level rise).
- Applicants can refer to the Climate Lens website for additional support and methodologies for assessing climate risk.
- If no climate risks were identified, justify why not. (e.g., the climate risks examined only pose a minimal risk.)

**3.2 Is the project protective infrastructure (e.g., a levee) or are you employing measures that increase the resiliency of your public infrastructure and/or your community to climate impacts?**  Yes  No

*If yes, describe or provide examples of project elements that improve your project and increase the resiliency of your community and/or your project. If no, why not?*

- Describe how the project increases resilience, including project-specific resilience measures, against medium or high climate risks. These should include any resilience measures taken to address or reduce climate risks that were identified in 3.1. This can include considering nature-based solutions.
- If climate risk reduction measures were identified but not implemented, justify why not.
- Examples include building a seawall or restoring wetlands to address flooding; providing firebreaks to decrease severity of wildfires; installing flooding sensors in elevators; or elevating electrical and HVAC systems to minimize flood risk.
- List any resilience standards, guidance, or tools that were consulted. For example: CSA S900.1:18 Climate change adaptation for wastewater treatment plants; and CSA PLUS 401 1-19 Technical guide: Infrastructure in permafrost: A guideline for climate change adaptation.
- Infrastructure Canada may follow up and request more information on why resiliency measures have not been taken if the justification is not clear, or if resilience measures for potential climate risks identified in 3.1 are missing.
- Applicants can refer to the Climate Lens website for additional resources on climate adaptation.

**3.3 Have you consulted, or will you consult, climate change data and tools, such as future climate projections available through the Canadian Centre for Climate Services and ClimateData.ca?**  Yes  No

*List the climate data and tools that were consulted to assess any current and future climate risks to your project.*

- Examples include:
  - ClimateData.ca: <https://climatedata.ca/>
  - Canadian Centre for Climate Services: <https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services.html>
  - Climate Atlas of Canada: <https://climateatlas.ca/home-page>
  - Platform for the Analysis and Visualization of Climate Science: <https://ouranosinc.github.io/pavics-sdi/>
- If none were consulted, explain why.
- Applicants can refer to the Climate Lens website for additional support and resources.

## 4.0 CLIMATE OBJECTIVES

### 4.1 Does your community / municipality have a Climate Action Plan? Yes No

*Brief Description / Title:*

- Indicate the specific community/municipal climate action plan.
- This can be a stand-alone climate action plan or integrated into a broader Strategic Plan.
- Examples include the City of Kelowna, British Columbia's [Community Climate Action Plan 2018-2023](#) and the Halifax Regional Municipality, Nova Scotia's [HaliFACT: Acting on Climate Together](#).

### 4.2 Does this project (or measures being considered) align with this plan? Yes No Not Applicable

*Briefly describe:*

- Describe how the project (or measures being considered) fits into the climate action plan, how it aligns with the plan's climate objectives, and how this will contribute to a more sustainable future for your community.

### 4.3 Optional/Supplemental: Please list relevant supporting information (sources, reports, studies, etc.) that were consulted in the course of completing the Climate Lens. Examples could include Impact Assessment studies, provincial environmental, GHG or climate risk assessments, benchmark studies, certification applications, etc.

**5.0** I, the undersigned, as authorized by my organization, confirm the statements above are true and accurate, and attest that:

- opportunities to quantify and minimize GHG emissions during the construction and operation of the project will be considered in the planning, design and development/ implementation of this project to the extent possible;
- and, climate change risks and adaptation and resiliency measures will be considered in the siting/location, design/build, and planned operation and maintenance of this project to the extent possible and reflecting the project's cost, criticality and vulnerability.

Infrastructure Canada may follow up on the results of the Climate Lens to confirm the required information or to request further detail. Consequently, Applicants should retain all the information used to complete the Climate Lens.

Signature of person responsible for completing the Climate Lens:

Name  
Position  
Organization  
Address  
Contact Number  
Email

## 2.2 Submission of the Climate Lens

For projects under the Investing in Canada Infrastructure Program, the Climate Lens is to be completed and submitted in its entirety at the time of application, unless otherwise indicated by Infrastructure Canada.

For Applicants to the Disaster Mitigation and Adaptation Fund, considerations of climate resiliency are already integrated into the application process. Projects approved under the DMAF must complete a GHG mitigation assessment before first federal payment, and may continue to follow [previous guidance](#).

Applicants indicating GHG emissions reductions but who are unable to estimate GHG emissions in question 2.3 and are not applying to the Green Infrastructure – Climate Change Mitigation sub-stream of the ICIP may submit a rationale for not providing an estimate of GHG emissions in 2030. These rationales will be reviewed by Infrastructure Canada on a case-by-case basis, and can include cases where the information required to estimate GHG reductions is not yet available. If Infrastructure Canada accepts the rationale and the project is approved, the Applicant will be asked to provide an estimate of GHG emissions reductions in 2030 before first claim.

Projects are to be submitted to Infrastructure Canada via the Infrastructure Recipient Information System (IRIS) digital portal (or equivalent), unless otherwise stated in program guidelines.

If the project requires changes to its components, process or timeline, a revised Climate Lens may need to be submitted. Only project changes that may impact the GHG emissions estimate significantly may trigger the need for a re-assessment. Infrastructure Canada will review the changes submitted in a **Change to project description** form and will contact the Applicant if a revised Climate Lens is required.

Infrastructure Canada will make the Climate Lens and all supporting guidance available via provincial and territorial contacts as well as on the INFC website.

The Applicant, via the province or territory, is responsible for completing the Climate Lens and providing the completed form to Infrastructure Canada. It is the Applicant's responsibility to meet any request for further information from Infrastructure Canada.

The guidance in this document is evergreen. Please consult the Infrastructure Canada website to ensure you have the most recent version of this guidance before undertaking a Climate Lens.