

# TIER Fact Sheet

## Alberta Emission Offset System

If information in this document conflicts with the Standard for Greenhouse Gas Emission Offset Project Developers (the "Standard"), the *Emissions Management and Climate Resilience Act* (the Act) or the Technology Innovation and Emissions Reduction Regulation (the Regulation), then the Standard, Act and/or Regulation prevail over this document.

### Overview

The [Technology Innovation and Emissions Reduction \(TIER\) Regulation](#) is central to emissions management policy in Alberta. TIER provides regulated facilities a number of compliance options, including use of Alberta-based emission offsets. The [Alberta Emission Offset System](#) is the largest and longest operating regulatory carbon market in Canada. While it is voluntary to participate once registered in the system, a project must follow all criteria and is subject to government reviews. Emission offset project developers undertake eligible projects to reduce or sequester greenhouse gas emissions and serialize as emission offsets on the [Alberta Emissions Offset Registry](#). Project developers quantify emission offsets using government-approved quantification protocols. Project developers must retain independent third party assurance providers to verify all emission offset claims.



### Quantification Protocols

The government approves eligible project types through the development of methodologies (quantification protocols) for the generation of Alberta emission offsets. The department approves and publishes [quantification protocols on the Government of Alberta webpage](#). Protocols are developed and maintained following the [Technical Guidance for Offset Protocol Development and Revision](#). A quantification protocol outlines the eligible activity or activities and provides monitoring, measuring and quantification procedures for the emission or net sequestration reductions resulting from the implementation of an eligible activity. Interested parties in emission reduction activities not covered in an approved protocol can pursue the development of a new, or revision of an existing protocol following the process in the protocol guidance.

Protocol development requires an invested and knowledgeable protocol developer and undergoes multi-stakeholder engagement and review processes that could take multiple years to be approved.



### System Criteria and Guidance

TIER enables the generation and usage of Alberta-based emission offsets and sets base criteria within the regulation. Additional criteria for projects are set in the [Standard for Greenhouse Gas Emission Offset Project Developers](#), and quantification protocols. Common emission factors and methodologies are referenced in the [Carbon Offset Emission Factors Handbook](#). Requirements for third party assurance providers (verifiers) are set in the [Standard for Validation, Verification, and Audit](#). Guidelines for protocol development are provided in the [Technical Guidance for Offset Protocol Development and Revision](#) and the [Technical Guidance for the Assessment of Additionality](#).

These Standards provide a number of rules and requirements for project developers and for verifiers that are undertaking verification engagements to review all emission offset project claims. Alberta has specific training requirements as well as accreditation requirements - see the verification standard for details.



## Project Eligibility Criteria

The eligibility criteria for emission offset projects are set out in TIER, the Standard, the Handbook, and the approved quantification protocols all noted above. High-level criteria for emission offset projects include, but are not limited to, that the emission reduction or net sequestration activity:

- must occur in Alberta
- must meet additionality requirements (including legal additionality) must result from an action taken that is not required by law
- must result from action taken and occur after January 1, 2002
- must be real and demonstrable
- must be quantifiable and measureable using replicable techniques
- must not have had reduced the total regulated emissions of a TIER facility



## Project Plan & Initiation

Government provides reporting templates to project developers and verifiers to ensure they report minimum requirements and are transparent about the project and how the project meets system criteria. These are appended in the Project Standard posted on Open Alberta. Project developers can officially initiate an active emission offset project by completing the [Offset Project Plan](#) form and submitting it and all other applicable documents into the [Alberta Emissions Offset Registry](#), the tracking infrastructure for the Alberta Emission Offset System. The project plan form includes a description of the project and how the project meets system and protocol criteria. The activity start date (when the project began) the emission reduction or net sequestration activity and may or may not be the same as the offset start date, the day an emission offset project is eligible to begin generating emission offsets. The offset start date is the date a completed project plan is submitted into the registry. It must be on or after the activity start date. Projects that are aggregated in nature require further documentation of each of the subprojects within the aggregate.



## Project Reporting

Project developers are required to develop an Offset Project Report form that describes how the project was implemented relative to the project's plan each time they want to make an emission offset claim for their project (all emission offset claims are ex-poste and may not claim future offsets). The report includes a greenhouse gas statement which is a statement summarizing the emission reductions or net sequestration in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) by vintage year that occurred over the reporting period. Any changes to the project relative to the project plan must be documented. Reporting periods may not overlap with one another. Project developers must hire an independent third party assurance provider to verify each project report. The verifier will document their processes and prepare a verification report confirming the statement is accurate. These documents are required to be submitted into the Alberta Emissions Offset Registry and will be publicly posted to the project listing.



## Verification

Verification is a structured process whereby an independent qualified third party assurance provider reviews the projects emission reduction claim over a specific reporting period (greenhouse gas statement) by confirming the offset project plan and project report for accuracy. Verifiers must meet criteria outlined in the Verification Standard and will conduct an in depth review (including site visit) for each project report. The verifier will conduct a review to a reasonable level of assurance with materiality threshold for errors, omissions or misstatements depending on the size of the project; at or over 500,000 tCO<sub>2</sub>e per year have a two per cent materiality and projects less than 500,000 tCO<sub>2</sub>e per year have a five per cent materiality threshold. Verifiers must take a break of two consecutive offset reporting periods for the six reporting periods immediately preceding the reporting period being verified.



## Serialization and Usage

The [Alberta Emissions Offset Registry](#) processes project reports and issues unique serial numbers to verified emission offsets which may then be used or sold to another party. The registry posts reports to each project on the registry platform once serialization is complete. Once serialized, the emission offsets may be used or sold to another party. All changes of ownership and intention to submit emission offsets for compliance or retirement purposes require tracking by the registry.



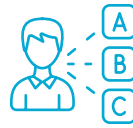
## Buying and Selling Emission Offsets

Interested parties can view all projects and emission offsets statuses on the Alberta Emissions Offset Registry. There is no price disclosure on the registry and transactions between buyer and seller are managed outside the registry; the registry is a tracking and listing service only.



## Re-Verification

The government reviews and re-verifies a selection of emission offset project reports each year to ensure that emission offset projects meet system requirements. The government also selects a number of emission offset projects to contract an additional verification of the serialized emission offsets on an annual basis (called re-verification). Re-verification helps the department assess and inform the overall performance of the offset system, cancel invalid Alberta emission offsets, and identify opportunities for improvement.



## Aggregated Projects

Smaller offset projects can be aggregated with other projects of the same type which means several small projects (called subprojects) are collected under one offset project listing and managed by the emission offset project developer (or aggregator). The advantage for project developers is that project economics are improved, and administration costs are shared when aggregating a project. Project developers are required to list and track all subprojects within their aggregation through completion of an aggregated project planning sheet and an aggregated project reporting sheet with their project plan and project report, respectively.



## Other Offset Systems

TIER does not accept offsets from other systems to be used for compliance. Alberta does not prevent its emission offsets from being used in other offset systems if eligible and tracked on the Alberta registry. In fact, Alberta's emission offsets are on the list of recognized offset programs and protocols for the [Federal Output Based Pricing System \(OBPS\)](#). Only projects that use protocols meeting all eligibility criteria outlined in the federal OBPS Regulations are eligible under their Recognized Offset Programs and Protocols for the federal OBPS.

## Description of Process of Emission Offset Project Lifecycle

### STEP 1

#### Initiation

- Project developer assesses project activity for eligibility under approved quantification protocol. Project meets requirements in Standard for Greenhouse Gas Emission Offset Project Developers.
- Completes Offset Project Plan form or contracts with an aggregator to bundle the project activity as a subproject.
- Optional — conduct project validation.
- Submits offset project plan and other relevant documents to the Registry.
- Registry reviews and posts the project plan to public listing.
- Offset Start Date and crediting period established.

### STEP 2

#### Implementation and Emissions Reductions

- Project developer implements the project plan, collects data and records, and documents reporting period claims in the Offset Project Report Form including a greenhouse gas statement. All emission reduction claims are ex-poste.
- Project developer sets Reporting Period for project report to be verified at least every two years.

### STEP 3

#### Verification

- The offset project developer retains a third party assurance provider to conduct an independent verification of the emission reduction project and emission offset claim.
- Verification must meet requirements in Standard for Validation, Verification and Audit.

### STEP 4

#### Registration

- Project developer submits verified documents (project report, verification report, and required supporting information) into Registry.
- Registry conducts completeness reviews and informs emission offset project developer of results.
- Posts public documents to project listing to support registration.

### STEP 5

#### Serialization

- Registry issues unique serial numbers to verified emission reduction claim, posted to the project listing.

### STEP 6

#### Transfer and Compliance Usage and Retirement

- Emission offset project developer engages bilaterally with party to sell emission offsets - submits transfer of ownership request to the registry.
- Transfer of ownership is tracked and updated on the registry.
- The owner of the emission offsets wanting to be used to meet annual targets submits a pending retirement request to the registry for compliance under the regulation. Lists the serial range in compliance report submission.
- The owner of the emission offsets wants to voluntary retire emission offsets for a purpose and submits a voluntary retirement request to the Registry — status of emission offsets is updated on the project listing and no further actions allowed on pending or retired.

### Assurance

#### Government Review and Re-Verification / Error Corrections

- Emission offsets that are used for compliance are reviewed by government.
- Government selects offset projects for re-verification.
- Any errors detected by project developer or government are corrected according to Standard.

# Alberta Protocol Development and Revision Process

