

# Technical Guidance for Offset Project Developers

Version: DRAFT for Public Comment

December 2012

Specified Gas Emitters Regulation

**Government  
of Alberta** ■

*Alberta* ■

1 **Disclaimer:**

2 The information provided in this document is intended as guidance only. This document  
3 is not a substitute for the law. Please consult the *Specified Gas Emitters Regulation* and  
4 the legislation for all purposes of interpreting and applying the law. In the event that there  
5 is a difference between this document and the *Specified Gas Emitters Regulation* or  
6 legislation, the *Specified Gas Emitters Regulation* or the legislation prevails.  
7  
8  
9

10  
11  
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33 ISBN: 978-0-7785-8807-8 (Printed)  
34 ISBN: 978-0-7785-8808-5 (On-line)  
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- 1 **Related AESRD Publications**
- 2
- 3 Climate Change and Emissions Management Act
- 4 Specified Gas Emitters Regulation
- 5 Specified Gas Reporting Regulation
- 6
- 7 Alberta's 2008 Climate Change Strategy
- 8
- 9 Technical Guidance for Completing Annual Compliance Reports
- 10 Technical Guidance for Completing Baseline Emissions Intensity Applications
- 11 Additional Guidance for Cogeneration Facilities
- 12 Technical Guidance for Landfill Operators
- 13
- 14 Technical Guidance for Offset Project Developers
- 15 Technical Guidance for Offset Protocol Developers
- 16 Quantification Protocols (<http://environment.alberta.ca/02275.html>)
- 17
- 18 Technical Guidance for Greenhouse Gas Verifications at Reasonable Level Assurance

## 1.0 Purpose of Document

The purpose of this document is to assist offset project developers in implementing offset projects for use in the Alberta offset system where the intended final purchaser is a facility regulated under the *Specified Gas Emitters Regulation* (the *Regulation*).

Alberta's offset market was initiated as a market instrument to support facility compliance under the *Regulation*, which requires all large, industrial facilities in Alberta emitting over 100,000 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) per year to reduce their emissions intensity by 12 per cent from their government approved baseline emission intensity.

Facilities and sectors not subject to the *Regulation* that are able to reduce their greenhouse gas emissions according to a government approved protocol and that meet the requirements of section 7 of the *Regulation* are eligible to generate offset credits where one tonne of CO<sub>2</sub>e reduced is equal to one offset credit. These credits, once registered and serialized on the Alberta Emissions Offset Registry (the registry), become a tradable unit that can be bought and sold in the Alberta offset market.

Offset credits are one of three market-based compliance options available to regulated facilities. Facilities may also purchase Climate Change and Emissions Management Fund Credits (fund credits), or use Emission Performance Credits (EPC), which are emission reductions generated at regulated facilities that have reduced their emissions below their net emissions intensity limit. For more information on these compliance options, see Section 4 of the *Technical Guidance for Completing Specified Gas Compliance Reports*.

The Alberta offset system also supports Alberta's commitment to reducing provincial greenhouse gas emissions. In its 2008 Climate Change Strategy, Alberta committed to a 50 megatonne reduction in provincial greenhouse gas emissions by 2020, and a 200 megatonne reduction by 2050 (Figure 1 below). Voluntary and regulatory emissions reductions, along with other actions such as consumer rebate programs for energy efficiency and support for public transit, changes in technology use, and implementation of carbon capture and storage will be part of a suite of actions required to meet the provincial emission reduction objectives.

ALBERTA'S REDUCTION COMMITMENTS

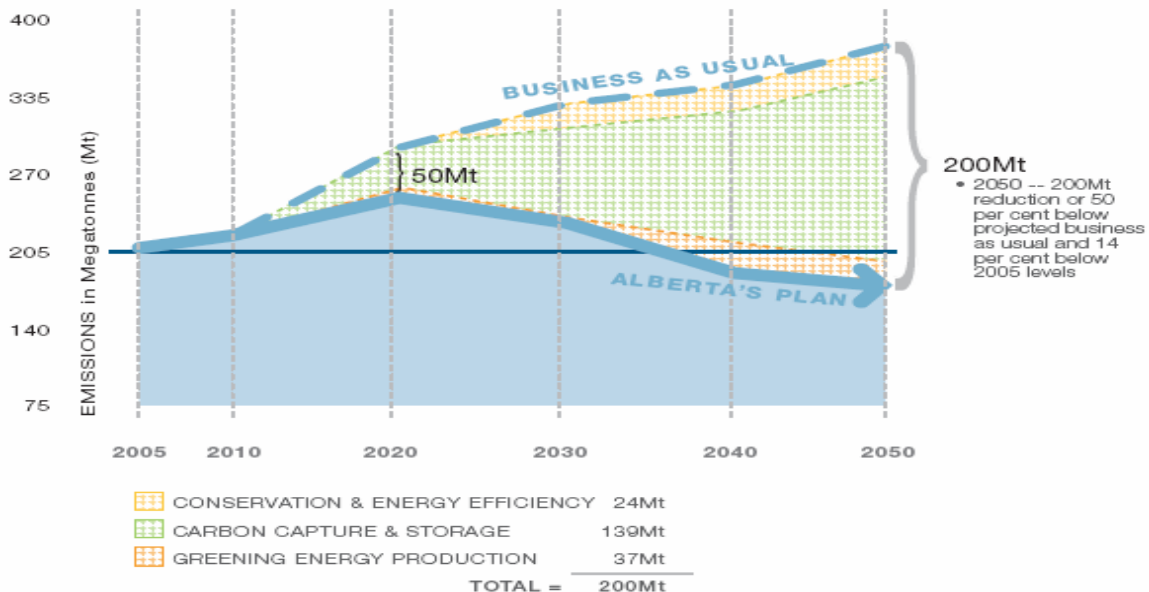


Figure 1: Alberta's 2008 Greenhouse Gas Reduction Commitments

### 1.1 Overview of Changes

The following is a summary of key changes included in this guidance document relative to the February 2012 Technical Guidance Document for Offset Project Developers.

- Alberta Environment and Water has been renamed Alberta Environment and Sustainable Resource Development (AESRD). This document has been updated to reflect the new department name;
- Program rule changes effective January 1, 2012 require all new offset credits serialized on the registry to be verified to reasonable assurance;
- **Reminder:** the deadline for claiming historic offset credits from 2002 to 2011 has expired. All offset projects must meet new requirements for go forward crediting beginning with the 2012 vintage offset credits. Note: aggregated tillage projects on First Nations lands have until March 31, 2013 to claim historic offset credits from 2002 to 2011.
- Section 3.9 provides clarification on requirements for aggregated offset projects.
- **Reminder:** Section 3.3.6 details treatment of offset projects under flagged and terminated quantification protocols;
- **Reminder:** greenhouse gas emissions reductions/removals must be substantiated by records. AESRD will not accept offset credits for compliance purposes that have incomplete or missing records. See Sections 4.10.1, 5.2, and 6.1.10 for more information;



- 1 • **Reminder:** As of August 1, 2012, project developers must complete a Statutory  
2 Declaration as part of the offset credit serialization process. See Section 4.10.5 for  
3 more information; and
- 4 • Verification requirements described in Section 6.0 have been up-dated to align with  
5 requirements in the Technical Guidance for Greenhouse Gas Verifications at  
6 Reasonable Level Assurance.

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## 2.0 Overview of the Alberta Offset System

### 2.1 Scope of the Alberta Offset System

The Alberta offset system compliments the *Specified Gas Emitters Regulation* by providing a market-based compliance option for regulated facilities. Eligible offset projects must be able to demonstrate real, quantifiable and verifiable emissions reductions using replicable quantification methodologies for greenhouse gas emissions reductions that would not otherwise have occurred had the offset project not been implemented. That is, offset credits must be generated from activities that go beyond business as usual practices (sector common practice) AND regulatory requirements.

The system has been designed to achieve greenhouse gas emission reductions while balancing environmental integrity with the ability to commercialize market opportunities. Alberta recognizes that some greenhouse gas emission reduction opportunities may not be commercially feasible at current carbon prices, or sectors may not currently have sufficient records to support compliance level emission reduction/removal quantification. These opportunities may be reconsidered in future as they meet program requirements and/or become feasible.

### 2.2 ISO 14064-2: Project Quantification, Monitoring and Reporting

The Alberta offset system uses the ISO 14064-2 platform for establishing and quantifying greenhouse gas reduction/removals projects. Offset projects must be developed and implemented according to this standard.

Alberta approves quantification protocols which serve as a consistent framework and approach for the development and verification of voluntary greenhouse gas emission reductions for specific activities. Where practical, Alberta draws on related protocols from other jurisdictions to inform its protocol development process. These include, but are not limited to:

- Clean Development Mechanisms (CDM);
- The Climate Action Reserve (CAR);
- The World Resources Institute (WRI);
- World Business Council on Sustainable Development (WBCSD);
- The Intergovernmental Panel on Climate Change (IPCC); and
- The National Inventory Report: Greenhouse Gas Sources and Sinks in Canada (Environment Canada, Annually since 1990)

More information on protocol development is available in the Technical Guidance for Offset Protocol Developers.

## 2.3 Offset Project Cycle

Offset projects occur when the project developer (a company or individual) undertakes a greenhouse gas emissions reduction project that is not otherwise required by law, and that quantifies emission reductions and/or removals according to an approved quantification protocol. Figure 2 below outlines the general flow of an offset project from inception to final submission of offset credits to AESRD as a compliance option under the *Regulation*.

The project developer must assess the proposed reduction opportunity against program requirements to ensure the project meets the eligibility criteria for the Alberta offset system (see Section 3.1), can be implemented according to a government approved protocol, and will result in real, quantifiable emission reductions/removals<sup>1</sup>.

Once the project developer determines their project meets the program requirements, they must develop a detailed offset project plan explaining how the project will meet the requirements of both the *Regulation* and the relevant quantification protocol(s). This project plan must include a monitoring plan for the project. Projects must be implemented according to the conditions outlined in the offset project plan and associated monitoring plan. Any changes in operations that occur must be documented in the offset project report discussed below.

The offset project plan and monitoring plan must be registered on the registry in the same calendar year in which the project intends to start claiming offset credits.

The offset project report is compiled annually or prior to third party verification. It explains how the project was implemented relative to the offset project plan including any changes in operating conditions that occurred during project report period. The offset project report will be reviewed by the third party verifier and is part of the required documentation needed to register a project on the registry.

All projects registered on the registry must be verified by a chartered accountant or professional engineer with relevant expertise in the project activity. The verifier will issue a verification report including a signed statement of verification, signed statement of qualifications, and signed conflict of interest checklist, which must be submitted to the registry as part of the supporting documentation for the offset project.

The project developer must complete a statutory declaration for the offset credits being serialized. This document must be included in the project documentation submitted to the registry.

The registry will perform a completeness check on all documents submitted, and may request clarification or corrections if errors or inconsistencies in project documentation relative to AESRD program requirements are detected. Once all supporting documents

<sup>1</sup> A complete list of approved quantification protocols is available at <http://environment.alberta.ca/02275.html>.

1 and payments are received<sup>2</sup>, the registry will issue unique serial numbers for the verified  
2 emission reductions/removals listed in the greenhouse gas assertion and signed off by the  
3 third party verifier.

4  
5 Offset credit transactions occur outside the  
6 registry and are done through contractual  
7 agreement between the buyer and seller. All  
8 status changes of offset credits, including  
9 transfers of ownership of serialized credits are  
10 tracked by the registry and may be provided to  
11 AESRD upon request.

12  
13 All offset credits submitted for compliance  
14 under the *Regulation* are deemed part of the  
15 facility compliance submission, and may be  
16 subject to a supplemental government audit.  
17 These audits are undertaken to support facility  
18 compliance. Errors identified through  
19 government audit will be corrected according  
20 to AESRD's error correction policy described  
21 in Section 7.4.

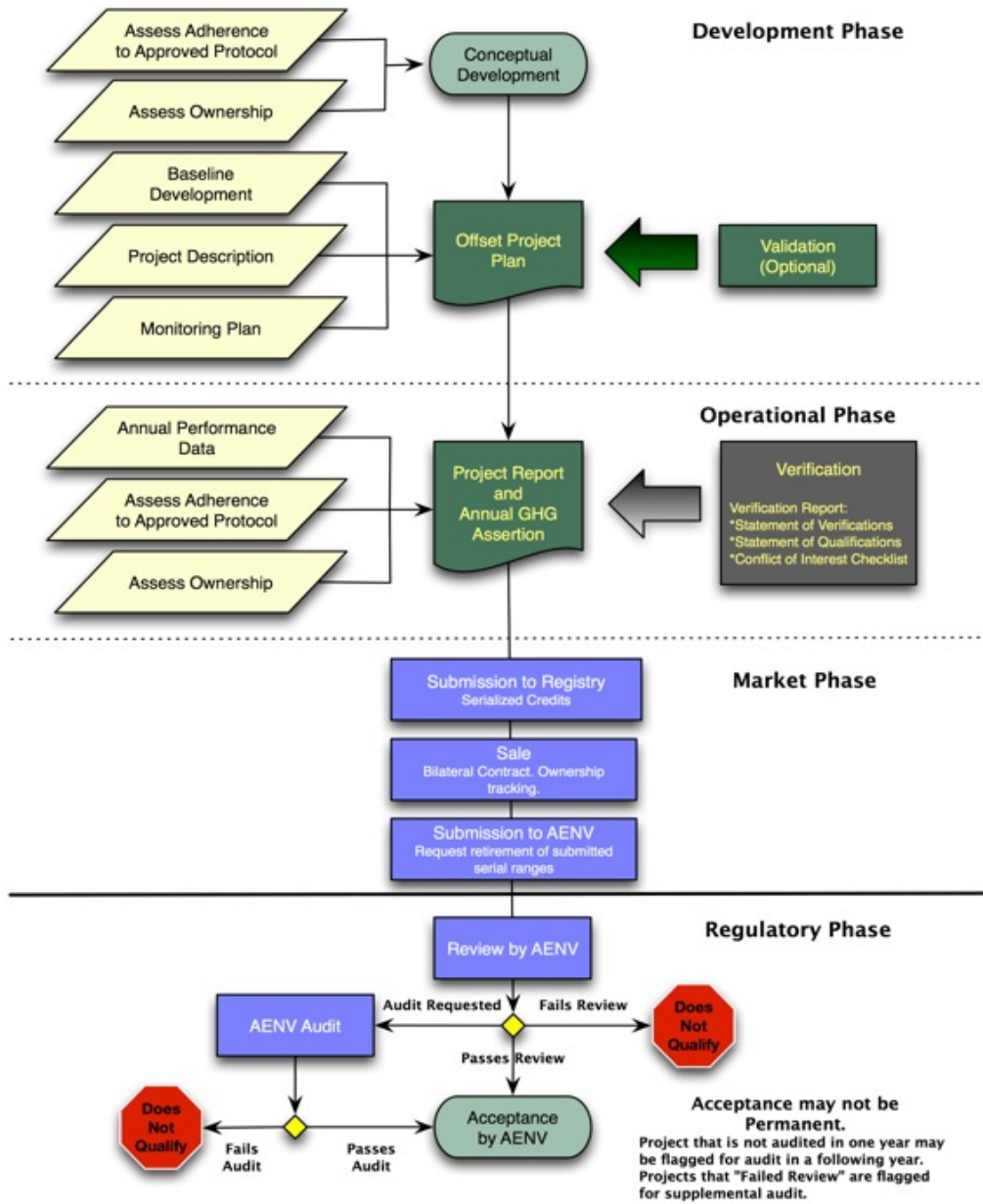
22  
23 Offset credits are a revocable license. Unsupported offset credits will be revoked and  
24 facilities that submitted these credits for compliance will be required to seek alternate  
25 compliance through payment into the Climate Change and Emissions Management Fund.  
26  
27

*Note, it is an offence under the Climate Change and Emissions Management Act to knowingly provide false or misleading information. Where it is determined that this has occurred, AESRD will take appropriate action including, but not limited to revoking all offset credits associated with the project. Companies that have submitted revoked credits will be required to seek alternate compliance through payment into the Climate Change and Emissions Management Fund.*

---

<sup>2</sup> An invoice will be sent to the project developer along with payment details. Payment is due on receipt of the invoice. Late payments may result in the project and associated transactions being temporarily suspended until payment has been received.

1 **Figure 2: Offset project cycle for the Alberta offset system.**



2

### 3 **2.4 Offset System Participants**

4 Below is a list of key participants in the Alberta offset system specific to developing  
 5 offset projects and transacting offset credits. Not all offset projects will involve all parties  
 6 listed below, and may include parties not mentioned here.

#### 7 **2.4.1 Aggregator**

8 An aggregator is a person or company that, through contractual arrangement, works with  
 9 suppliers of small volumes of offset credits established under the same protocol to pool  
 10 these smaller projects into a sufficiently large volume to manage verification and  
 11 transaction costs. The aggregator is considered to be the project developer for an

1 aggregated project and is responsible for developing project documentation, engaging a  
2 verifier, liaising with the registry, negotiating credit transactions, and is the project  
3 contact person for government audits.

4 **2.4.2 Auditor**

5 For the purposes of the Alberta offset system, an auditor is defined as a person or  
6 company hired by the Government of Alberta to conduct an independent review of the  
7 offset project on behalf of the government. Auditors must meet the requirements for a  
8 third party auditor stated in section 18 of the *Regulation*.

9 **2.4.3 Alberta Emissions Offset Registry**

10 The Alberta Emissions Offset Registry (the registry) is a publicly accessible website  
11 (listing service) that serializes, tracks, and provides transparency to offset projects and  
12 associated offset credits registered in the Alberta offset system.

13 **2.4.4 Authorized Project Contact**

14 Each offset project must have a authorized project contact who is responsible managing  
15 project information on the registry, responding to registry requests, and is the primary  
16 contact for government audits. This individual may be internal to the offset project  
17 company or be an external third party contracted by the company.

18 **2.4.5 Broker**

19 A broker is an intermediate person that may buy and sell offset credits, or bring together  
20 buyers and sellers within the offset market. Offset credits may be traded between one or  
21 more brokers before being sold to the regulated facility submitting the credits for  
22 compliance.

23 **2.4.6 Government of Alberta**

24 AESRD, on behalf of the Government of Alberta, is the regulatory body that establishes  
25 the program rules and oversees the implementation of the *Specified Gas Emitters*  
26 *Regulation* and the Alberta offset system. AESRD reviews all offset credits submitted for  
27 compliance and retains final right to accept, request more clarification, or revoke offset  
28 credits. AESRD also reviews and updates guidance documents, regulations,  
29 quantification protocols and related materials from time to time as needed and at a  
30 maximum of every 5 years.

31 **2.4.7 Project Developer**

32 The project developer is responsible for initiating and implementing the offset project.  
33 The project developer must determine how the project will be implemented against an  
34 approved quantification protocol. The project developer is responsible for developing  
35 project documentation, engaging a verifier, liaising with the registry, negotiating credit  
36 transactions, and is the project contact person for government audits.

37

38 For aggregated projects, the project developer is the aggregator.

1 **2.4.8** *Regulated Facility*

2 Regulated facility is a facility that is regulated under the *Specified Gas Emitters*  
3 *Regulation*. Regulated facilities are the end user for offset credits generated in the Alberta  
4 offset system.

5 **2.4.9** *Verifier*

6 The verifier is an independent third party that meets the requirements of an auditor stated  
7 in section 18 of the *Specified Gas Emitters Regulation*. The person(s) making up the  
8 verification team must have sufficient qualifications to undertake a review of the offset  
9 project and associated greenhouse gas assertion.

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1

## 2 **3.0 Offset Program Rules**

### 3 **3.1 Offset Eligibility Criterion**

4 Section 7 of the *Specified Gas Emitters Regulation* defines the minimum eligibility  
5 criteria that must be met for an offset project to be eligible to generate offset credits for  
6 use as a compliance option in Alberta. In order to qualify, project-based emission  
7 reductions/removals must:

- 8 • Occur in Alberta;
- 9 • Result from actions not otherwise required by law and be beyond business as  
10 usual and sector common practices;
- 11 • Result from actions taken on or after January 1, 2002;
- 12 • Occur on or after January 1, 2002;
- 13 • Be real, demonstrable, quantifiable, and verifiable using replicable means;
- 14 • Have clearly established ownership; and
- 15 • Be counted once for compliance purposes;

16

17 In addition to the requirements stated above, Alberta also requires that offset projects:

- 18 • Be implemented according to a government-approved quantification protocol;
- 19 • Be verified by a qualified person(s) meeting the requirements for an auditor  
20 under section 18 of the *Regulation*; and
- 21 • Be registered on the registry.

### 22 **3.2 Contacting AESRD**

23 Project developers should direct any questions they have to [AENV.GHG@gov.ab.ca](mailto:AENV.GHG@gov.ab.ca), or  
24 by mail to:

25

26 Director, Climate Change Secretariat  
27 Alberta Environment and Sustainable Resource Development  
28 12<sup>th</sup> Floor Baker Centre,  
29 10025 – 106 Street  
30 Edmonton, Alberta, Canada  
31 T5J 1G4  
32

### 33 **3.3 Program Constraints**

#### 34 **3.3.1 Geographic Boundary**

35 Offset projects must be located in Alberta and result in reductions of provincial  
36 greenhouse gas emissions regulated under the *Climate Change and Emissions*  
37 *Management Act*.



1 **3.3.2** *Additionality*

2 Greenhouse gas emission reductions/removals must be generated from actions that are  
3 beyond regulatory requirements and business as usual activities/sector common practice.  
4

5 Additionality for a reduction/removal activity is assessed during protocol development  
6 and is reassessed periodically during the protocol review. See Section 3.1 of the  
7 Technical Guidance for Offset Protocol Developers for more information on  
8 additionality.

9 **3.3.3** *Program Start Date*

10 The start date for the Alberta offset program is January 1, 2002. This date coincides with  
11 the release of *Albertan's and Climate Change: Taking Action* (2002), which signaled  
12 Alberta's commitment to regulate greenhouse gas emissions in the province.

13 **3.3.4** *Project Start Date*

14 The start date for a project is defined as the first day of operation of the offset project or  
15 activity that is not for pilot or testing purposes. Projects must have a start date on or after  
16 January 1, 2002 to be eligible for offset credits.  
17

18 New projects being registered on the registry must demonstrate a project start date that is  
19 on or after January 1, 2002, and will be eligible to generate credits on a go-forward basis  
20 from project creation on the registry including posting of the offset project plan and  
21 associated monitoring plan.  
22

23 Aggregated projects must establish a common start date for  
24 all subprojects being included in the aggregated project  
25 such that all subprojects have the same 8-year crediting  
26 period.  
27

28 Historic credits already serialized on the Alberta Emissions  
29 Offset registry will remain active until they are submitted  
30 for compliance or voluntarily retired from the registry.

*Note, aggregated tillage projects on First Nations lands have until March 31, 2013 to submit historic offset credits for vintage years 2002 to 2011.*

31 **3.3.5** *Credit Start Date*

32 The credit start date is the point when a project is eligible to start generating offset  
33 credits. Projects must be able to demonstrate a project start date on or after January 1,  
34 2002 and are eligible to start generating credits for the year in which the project plan and  
35 monitoring plan are developed and registered with the registry. This is known as project  
36 creation on the registry.  
37

38 Projects can have a project start date/credit start date that  
39 occurs at any point in the year; however project creation  
40 must occur in the same calendar year in which the project  
41 developer wishes to start generating offset credits. For  
42 example, a project may have a credit start date of April 15.

*Note: the credit start date may be different from the project start date.*

1 The project must be created on the registry on or before December 31 of the same  
 2 calendar year.

3  
 4 **Table 1: Example of effective start dates for select offset projects.**

5

Protocol	Project Start Date
Energy Efficiency	Date equipment installation, operating parameter changes or process reconfiguration are initiated or take effect.
Landfill Gas Collection and Combustion	Date of initiation for commercial operations that is subsequent to any testing phases that may be needed.
Conservation Cropping	Applies an adjusted baseline for sector-wide adoption levels based on 2006 Census of Agriculture, applied to all projects.
Aggregated projects	Start date of last subproject being included in the aggregated project. All projects included in the aggregated project must have the same 8-year crediting period.

6  
 7 **3.3.6 Credit Duration Period**

8 The credit duration period is the amount of time an offset project can generate offset  
 9 credits. In Alberta, this is 8 years with a possible 5-year extension for most project types,  
 10 except conservation cropping and afforestation projects, which have a longer credit  
 11 duration period.

12  
 13 Conservation cropping projects (no-till farming) has been given two 10-year crediting  
 14 periods from January 1, 2002 to December 31, 2021. The summerfallow flexibility  
 15 mechanism has been given one 10-year crediting period from January 1, 2012 to  
 16 December 31, 2021. The extended crediting period has been implemented to recognize  
 17 that biological sinks must be maintained for a 20-year period for the sink to reach  
 18 saturation—the point where the soil cannot absorb any additional carbon.

19  
 20 The afforestation protocol is under review and is being considered for a longer crediting  
 21 period to reflect the slower growth rate of trees. Crediting periods for this protocol have  
 22 been proposed as three 20-year cycles after which point, the activity is considered  
 23 reforestation and is no longer eligible for offset credits.

24  
 25 Credit generation must be for 8 consecutive years from the credit start date with a  
 26 possible 5-year extension. This represents the maximum commitment period and includes  
 27 any years or periods of years in which a project may have been ineligible to generate  
 28 offset credits (e.g.,: facility shutdown, or periods where offset credits were sold to a  
 29 different market).  
 30

1 If an offset project becomes a regulated activity under the *Specified Gas Emitters*  
2 *Regulation*, or becomes subject to any other greenhouse gas regulations, the project is  
3 eligible to claim the balance of the 8-year crediting period. No extensions will be given to  
4 the project. AESRD may prescribe additional requirements to ensure no double counting  
5 of emission reductions occurs.

6  
7 Protocols are subject to periodic review. Where protocols are retracted because the  
8 activity is determined to be business as usual for the sector, projects initiated under the  
9 protocol will be allowed to finish the 8-year crediting period, but will not be eligible for a  
10 5-year extension.  
11

### 12 **3.3.7 Reporting Period**

13 The reporting period is the specific time period covered in the offset project report, and  
14 associated verification report.  
15

### 16 **3.3.8 Project Extension Period**

17 Offset projects are eligible for a 5-extension if the project:

- 18 ■ Has an approved quantification protocol;
- 19 ■ Has addressed issues identified during government audit; and
- 20 ■ Does not have any other unresolved compliance issues that affect greenhouse  
21 gas quantification.  
22

23 Project developers wishing to apply for a 5-year extension  
24 must submit a written request to the Director at the  
25 address provided in Section 3.2 requesting an extension  
26 for the project. The letter must include rationale for how  
27 the project continues to meet the requirements of the  
28 protocol, and any changes in project operations that have  
29 occurred. The Director will review the request for  
30 extension and may request additional information from  
31 the project developer.  
32

*Note, the 5-year extension begins immediately after the 8-year crediting period. Full crediting potential for an offset project is a maximum of 13 consecutive years.*

33 Follow-up will be initiated within 30-days of receipt of the written request.  
34

35 A copy of the Director's decision will be forward to the  
36 project developer with a cc to the registry. The Director's  
37 decision must be posted on the registry as part of the  
38 supporting information for the offset project.  
39

*Note, extensions will not be given to projects for protocols that have been terminated or to projects that have become a regulated facility under the Specified Gas Emitters Regulation.*

40 Offset projects that are granted a 5-year extension are  
41 required to update the project baseline and project  
42 assumptions to reflect the most current version of the  
43 quantification protocol.  
44

1 **3.3.9 Protocol Versioning**

2 Protocols will be reviewed every five years, or sooner as needed to ensure protocols  
3 continue to reflect best available science and quantification methodologies.

4  
5 New projects must be implemented using the most current version of the protocol.  
6 Existing projects can continue to use the version available when the project was initiated.  
7 AESRD may require projects initiated under flagged protocols to up-date project  
8 conditions to address key risk areas, or to adopt revised protocol requirements once  
9 approved.

10  
11 Any up-dates made to protocols to accommodate regulatory changes must be made when  
12 the revised protocol is released.

13  
14 If project developers wish to switch to a new version of the protocol, they will be  
15 required to reassess both the project baseline and project condition for the remainder of  
16 the credit duration period.

17  
18 Projects granted a 5-year extension must be revised to meet the requirements of the most  
19 current version of the quantification protocol.

20 **3.3.10 Flagged Protocols**

21  
22 If inconsistencies and/or errors are identified in a protocol, AESRD will flag the protocol  
23 on its website. Existing projects already registered on the registry may continue under the  
24 existing protocol. Changes made to the protocol will apply to the project extension  
25 period.

26  
27 Project developers wishing to initiate new projects under the protocol must contact  
28 AESRD to discuss their specific project. If the project meets program requirements,  
29 AESRD will issue approval for the project to be registered on the registry. Projects  
30 cannot be registered under a flagged protocol without approval from AESRD. This  
31 approval letter must be included in the project documentation and be appended to the  
32 project plan.

33  
34 Project developers should use caution in initiating projects under flagged protocols.  
35 Projects will not be approved for inclusion in the Alberta offset if the protocol is  
36 terminated.

37  
38 **3.3.11 Real, Demonstrable and Quantifiable**

39 The project must demonstrate that it causes a net reduction of greenhouse gases regulated  
40 under the *Climate Change and Emissions Management Act*, and that these emission  
41 reductions/removals are quantified according to accepted methodologies stated in the  
42 approved quantification protocol. All emissions reductions/removals being included in  
43 the greenhouse gas assertion must be supported by records. AESRD cannot accept any  
44 offset credits for compliance purposes that are not supported by records.

1 **3.3.12** *Counted Once*

2 Emissions reductions must be unique and can only  
 3 be counted once for compliance. Offset credits  
 4 serialized and registered on the registry cannot be  
 5 registered on any other registry where the  
 6 intention is to buy, sell or trade tonnes that are  
 7 already active in the Alberta offset market. Once  
 8 the offset credits are used for compliance, they  
 9 must be retired from the registry and removed  
 10 from circulation.

11  
 12 Alberta requires all new offset credits being  
 13 submitted for serialization on the registry to  
 14 include a Statutory Declaration attesting that the  
 15 offset credits registered on the Alberta registry  
 16 have not been listed on any other registry. If  
 17 credits were originally listed on a different  
 18 registry, the project developer must indicate which  
 19 registry and provide confirmation that the credits  
 20 have been delisted and removed from the other  
 21 registry before they will be serialized on the Alberta  
 22 registry.

It is an offense under the *Specified Gas Emitters Regulation* to knowingly register an offset project and greenhouse gas emissions reductions / removals on the Alberta registry and any other registry for any purpose. If AESRD becomes aware of any instances of double registering of offset credits between the Alberta registry and any other registry, appropriate action will be taken, including, but not limited to revoking all offset credits associated with the project. The project may be referred to compliance for further investigation.

23  
 24 Schedule B – GHG CleanProjects™ Registry Services Agreement for Alberta Emissions  
 25 Offset Registry Projects has additional requirements that verified emissions reductions or  
 26 removals (VERRs) listed on the registry are not listed on any other registries.

27  
 28 Double listing of credits on the Alberta registry and any other registry may result in all  
 29 credits associated with the project being revoked from the Alberta registry and companies  
 30 that submitted the credits for compliance being required to pay alternate compliance into  
 31 the Climate Change and Emissions Management Fund.

32 **3.3.13** *Registered on the Registry*

33 All offset credits submitted to AESRD as a compliance option must be registered and  
 34 serialized on the registry.

35 **3.3.14** *Offset Credit Transactions*

36 All offset credit transactions must be done through contractual arrangements between the  
 37 buyer and seller. All credit transactions are tracked through Schedule D forms submitted  
 38 to the registry, and are subject to transfer fees listed in Table 5.

39 **3.3.15** *Ownership*

40 Each party must be able to demonstrate ownership for offset credits and have the legal  
 41 right to transact on these credits. Ownership is negotiated through contract between  
 42 affected parties. Ownership is discussed further in Section 3.7 below.

### 1 3.3.16 *Verification*

2 All offset credits must be verified by an independent third party verifier before they can  
3 be registered on the registry. More information on third party verification is available in  
4 Section 6.0.

### 5 3.3.17 *Government Audit*

6 AESRD audits a percentage of offset credits/offset projects submitted for compliance  
7 under the *Specified Gas Emitters Regulation*. Audits are conducted according to the  
8 requirements outlined in Section 7.0.

## 9 3.4 Quantification Protocols

10 Government-approved quantification protocols have been developed to support the  
11 Alberta offset system. These protocols provide standardized quantification methodologies  
12 for specific greenhouse gas emission reduction opportunities in Alberta. The protocols  
13 have been developed using the best available science tailored to Alberta conditions, good  
14 practice guidance from other jurisdictions, provincial/national expertise, and experience  
15 gained through similar international projects. While quantification protocols serve as a  
16 guide for setting up a project and quantifying associated emission reductions/removals, it  
17 remains the responsibility of the project developer to demonstrate how the project meets  
18 the requirements outlined in the protocol, and that the activity continues to comply with  
19 all applicable regulatory requirements.

20  
21 More information on the protocol development process is available in the *Technical*  
22 *Guidance for Protocol Developers*. A complete list of approved protocols is available at:  
23 <http://environment.alberta.ca/02275.html>.

## 24 3.5 Covered Emissions

25 Offset projects must result in emission reductions of greenhouse gas emissions regulated  
26 under the *Climate Change and Emissions Management Act*. These emissions include  
27 carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC),  
28 perfluorocarbons (PFC), and sulphur hexafluoride (SF<sub>6</sub>). Table 2 provides a list of the  
29 specified gases including their 100-year global warming potential used to calculate the  
30 carbon dioxide equivalent (CO<sub>2</sub>e) emissions.

31  
32 Any changes to this list including the addition of new gas species or changes to the global  
33 warming potential of the gases will be assessed during the review of the *Specified Gas*  
34 *Emitters Regulation*.

Table 2: Specified gases and gas species subject to the *Climate Change and Emissions Management Act*.

Specified Gas	Formula	100-year GWP
<b>Carbon dioxide</b>	CO <sub>2</sub>	1
<b>Methane</b>	CH <sub>4</sub>	21
<b>Nitrous Oxide</b>	N <sub>2</sub> O	310
<b>Sulphur Hexafluoride</b>	SF <sub>6</sub>	23900
<b>Perfluorocarbons (PFC)</b>		
Perfluoromethane	CF <sub>4</sub>	6500
Perfluoroethane	C <sub>2</sub> F <sub>6</sub>	9200
Perfluoropropane	C <sub>3</sub> F <sub>8</sub>	7000
Perfluorobutane	C <sub>4</sub> F <sub>10</sub>	7000
Perfluorocyclobutane	c-C <sub>4</sub> F <sub>8</sub>	8700
Perfluoropentane	C <sub>5</sub> F <sub>12</sub>	7500
Perfluorohexane	C <sub>6</sub> F <sub>14</sub>	7400
<b>Hydrofluorocarbons (HFC)</b>		
HFC-23	CHF <sub>3</sub>	11700
HFC-32	CH <sub>2</sub> F <sub>2</sub>	650
HFC-41	CH <sub>3</sub> F	150
HFC-43-10mee	C <sub>5</sub> H <sub>2</sub> F <sub>10</sub> (structure: CF <sub>3</sub> CHFCHFCF <sub>2</sub> CF <sub>3</sub> )	1300
HFC-125	C <sub>2</sub> HF <sub>5</sub>	2800
HFC-134	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub> (structure: CHF <sub>2</sub> CHF <sub>2</sub> )	1000
HFC-134a	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub> (structure: CH <sub>2</sub> FCF <sub>3</sub> )	1300
HFC-143	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub> (structure: CHF <sub>2</sub> CH <sub>2</sub> F)	300
HFC-143a	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub> (structure: CF <sub>3</sub> CH <sub>3</sub> )	3800
HFC-152a	C <sub>2</sub> H <sub>4</sub> F <sub>2</sub> (structure: CH <sub>3</sub> CHF <sub>2</sub> )	140
HFC-227ea	C <sub>3</sub> HF <sub>7</sub> (structure: CF <sub>3</sub> CHF <sub>2</sub> CF <sub>3</sub> )	2900
HFC-236fa	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub> (structure: CF <sub>3</sub> CH <sub>2</sub> CF <sub>3</sub> )	6300
HFC-245ca	C <sub>3</sub> H <sub>3</sub> F <sub>5</sub> (structure: CH <sub>2</sub> FCF <sub>2</sub> CHF <sub>2</sub> )	560

### 3.6 Sources and Sinks

An emission **source** is any process or activity that releases a greenhouse gas into the atmosphere. An emission **sink** is any process, activity, or mechanism that removes a greenhouse gas from the atmosphere. Each quantification protocol contains a detailed list of included and excluded sources and sinks applicable to the specific reduction/removal activity.

The project developer must develop an offset project plan for each project (or collection of aggregated projects) that explains how the project will meet the requirements of the quantification protocol. This includes explaining how the project will track, monitor, and

1 quantify emissions associated with each source and sink identified in the protocol. Where  
2 a source or sink is identified in the protocol, but is not applicable to the project, rationale  
3 for this exclusion must be provided in the project plan.

### 4 **3.7 Flexibility Mechanisms**

5 Some protocols have flexibility mechanisms that allow a broader application of the  
6 protocol. These flexibility mechanisms allow for closely related project activities that use  
7 related or similar quantification methodologies to be captured under one protocol. The  
8 flexibility mechanism must result in equivalent or greater quantification rigour (e.g.,  
9 using site specific parameters in the place of generic emission factors).

10  
11 If a flexibility mechanism is being used in the project, rationale for the decision,  
12 including supporting quantification methodology, assumptions, etc. for the flexibility  
13 mechanism must be clearly documented in the project plan.

### 14 **3.8 Ownership**

15 Project developers must be able to demonstrate clear, legal claim of the greenhouse gas  
16 reductions/removals achieved from an offset project. Where two or more parties may  
17 have claim to the offset credits, ownership must be established through contractual  
18 agreement between the parties before the verifier can sign off on the greenhouse gas  
19 assertion and the offset credits can be registered on the registry.

20  
21 Some quantification protocols assign ownership at a particular point in the project  
22 lifecycle. In these cases, ownership is assigned to the person undertaking the  
23 reduction/removal activity, and is assumed to be at the point where the majority of the  
24 records will be developed and maintained. It is the project developer's responsibility to  
25 ensure that these assumptions are valid for their specific project condition based on other  
26 contractual agreements that may affect ownership of the offset credits.

27  
28 Offset credits that do not have appropriate proof of ownership and/or assignment of  
29 ownership will not be accepted as a compliance option under the *Specified Gas Emitters*  
30 *Regulation* and will be revoked from the registry.

#### 31 **3.8.1 Soil Sequestration Projects**

32 Ownership of carbon sequestered in the soil is assigned to the legal land owner. Proof of  
33 practice for the activity (records proving practices resulting in sequestered carbon in soil)  
34 may reside with a third party. Both proof of practice **AND** sign-off from the land owner  
35 are required for projects to be eligible to generate offset credits.

36  
37 The rights to carbon sequestered in soil accrue to the current land owner and transfer  
38 upon sale of the property unless explicitly identified in the sale. Land titles are used to  
39 determine land ownership.



### 1 3.8.2 *Soil Sequestration Projects on First Nations Lands*

2 Ownership of aboriginal lands is held by Canada. First Nations wishing to claim historic  
3 offset credits for 2002 to 2011 inclusively must have signed an Agreement with  
4 Canada. All project documentation must be compiled and verified and submitted to the  
5 registry by March 31, 2013.

6  
7 AESRD and Aboriginal Affairs and Northern Development Canada (AANDC) are  
8 working to resolve carbon ownership for 2012 and future vintage years. More  
9 information will be provided once available.

10  
11 Ownership for Métis Settlement Lands is held by the Métis Settlement General Council  
12 in trust. Lands held by Métis Settlement title must have ownership sign-off by a  
13 designated authority with the right to legally bind the lands. Lands registered in the name  
14 of a member must obtain sign-off from the registered member.

15  
16 All other protocol records requirements apply.  
17

## 18 3.9 Aggregated Projects

19 Some project activities individually result in too small a volume of reductions/removals  
20 to be economic; however, if aggregated into a single larger volume project, they can be  
21 economic and result in significant greenhouse gas emissions reductions. The following  
22 considerations apply to aggregated projects.

### 23 **Structure**

24 An aggregated project consists of a number of discrete sub-projects being implemented  
25 under the same protocol. Subprojects are at different geographic locations, and may have  
26 different volumes of emissions reductions.

27  
28 Some aggregated projects may occur at different sites belonging to a single corporate  
29 entity (e.g., vent gas capture projects at well sites); however, most sub-projects have  
30 unique owners for each site. Ownership and assignment of carbon rights must be  
31 negotiated through contractual obligations.

32  
33  
34  
35 Subprojects being included in the aggregated project must be identified in the offset  
36 project plan and remain consistent throughout the 8-year credit period. If new projects are  
37 added, the credit opportunity will expire at the same time as the original set of  
38 subprojects.

### 39 **Sub-Project Tracking**

40  
41  
42 Each sub-project is tracked using activity specific templates (e.g., spatial locator  
43 templates for conservation cropping projects) that is submitted to the registry as part of  
44 the project registration package. Information collected in this form is used to identify  
45 each unique project and to check for double counting within the Alberta offset system.

Each aggregated project type will have its own unique template that must be completed based on the specific requirements of the protocol. Forms are developed by the registry and AESRD, and are available to the project developer upon request. Information requested in the form must be provided. The forms cannot be altered and categories cannot be left blank.

Information collected in the templates is covered under Section 16 of the *Specified Gas Emitters Regulation*, and may only be disclosed to government upon request.

**Credit Start Date**

The start date for each subproject must be on or after January 1, 2002.

The aggregated project must have a single credit start and end date. That is, the aggregated project must have a single 8-year crediting period on the registry and all credit opportunities associated with the project will expire at the same time. Examples of credit start dates are provided below:

**Table 3: Example Start Dates for Aggregated Project Types**

Activity	Subproject Start Dates	Credit Period
Building energy efficiency project	Project 1 – Replaced HVAC June 2009 Project 2 – Upgraded boilers December 2012 Project 3 – Lighting upgrades March 2013	March 2013 to March 2020
Conservation cropping	Coefficients apply annually. Demonstrated practice annually.	All opportunity expires December 31, 2021
Wind energy	Turbine 1 – Installed June 2006 Turbine 2 – Installed July 2008 Turbine 3 – Installed August 2004	January 2013 <sup>3</sup> to January 2020

**Data Management and Records**

Each subproject must have complete records as required by the quantification protocol to support the emissions reductions/removals being generated by the subproject.

The aggregator must retain copies of all records for each subproject consistent with the requirements of the quantification protocol.

The aggregator must implement a data management system appropriate for collecting and compiling subproject information. Data management system requirements are described in Section 5.

<sup>3</sup> In this example, projects were installed after January 1, 2002, but have not previously been registered in the Alberta offset system. Credits can be generated on a go-forward basis starting in the same calendar year in which the project is created on the Alberta Emissions Offset Registry and is eligible for an 8 year credit period. No historic credit opportunity exists.

1 Aggregators are encouraged to implement robust and verifiable data management  
2 systems to support their project. As with other projects, automated systems with good  
3 QA/QC checks improve the overall defensibility of the project. Heavy reliance on manual  
4 data input and data tracking can increase the likelihood of errors within the project and  
5 may increase the potential for material discrepancies in the project.  
6

7 AESRD recognizes that much of the raw data, particularly from agricultural type  
8 aggregated projects will be provided in hard copy records. The aggregator can improve  
9 the usability and verifiability of this data by developing and maintaining electronic copies  
10 as well as hard copies, and by providing QA/QC checks on the data once it is input into a  
11 data management system.  
12

13 Aggregators are liable for errors resulting from their respective data management systems  
14 and cannot pass on liability for these errors to the credit producer. See Section 4.11.1 for  
15 additional guidance on contracting practices and Section 4.11.2 for additional information  
16 on liabilities and risks.  
17

### 18 **Site Visits**

19  
20 Verifiers are required to do site visits of subprojects on a sample basis to confirm records.  
21 Site visits are used to assess the project, and review original records against copies  
22 retained by the aggregator.  
23

24 The aggregator is required to facilitate site visits for the sample set selected by the  
25 verifier. Failure to complete a site visit may result in a qualified or adverse verification  
26 finding.  
27

### 28 **Ownership**

29  
30 Ownership and right to transact on offset credits must be established through contract.  
31 Ownership agreements may vary depending on the project type, but must be addressed  
32 before the reductions/removals can be included in an offset project. Examples of  
33 subproject ownership are provided in Table 4 below.  
34

1 **Table 4: Examples of Ownership for Subprojects**

Activity	Parties Involved	Subproject Ownership
Building Energy Efficiency Project	Building owners Tenants, Property management company,	Ownership likely resides with the building owner, but records may reside with the tenants, property managers, or building owner. Written agreement must be established to assign ownership of offset credits resulting from building improvements.
Conservation Cropping	Land owner, Lessee or tenant,	Ownership is assigned to the land owner. Records typically reside with the person undertaking the activity, which may be lessee or tenant. Written agreement must be established to assign ownership of offset credits.
Reduced Age at Harvest	Feedlot operator, Cow-calf operator, Cattle owner, Abattoir, etc.	Ownership is assigned at the Feedlot operator; however, the feedlot operator is responsible for establishing written assignment of ownership with any other parties that may have claim to the credits.
Wind Energy	Wind turbine owner, Joint owners	Ownership between joint venture partners or other must be established through written agreement.

2  
3 In most cases, subprojects will have unique owners. Ownership between the aggregator  
4 and subproject is established through contracts using one of two approaches – direct  
5 purchase of offset credits, or the aggregator acting as an agent.

6  
7 **Option 1: Direct Purchase (The aggregator owns the credits)**

8 In this scenario, the aggregator purchases the offset credits from the  
9 subproject owner. The aggregator must be able to demonstrate to the  
10 satisfaction of the verifier and AESRD that ownership and title have  
11 transferred from the producer of the offset credits (e.g., farmer, building  
12 owner, oil and gas company, etc.) to the aggregator at the time of  
13 verification.

14  
15  
16 **Option 2: Agent (The aggregator acts as an agent)**

17 The aggregator acts as an agent on behalf of the subproject owner. In this  
18 case, the contractual agreement between the subproject owner and  
19 aggregator must clearly stipulate the right of the aggregator to act as an  
20 agent on behalf of the credit producer. Title remains with the subproject  
21 owner until the offset credits are sold to a buyer. The contract should say  
22 when and how payment will be made.

23  
24 Additional contracting considerations for aggregated projects are discussed in Section  
25 4.11.1.

1 **Registration on the Alberta Emissions Offset Registry**

2  
3 The aggregated project is considered a single project on the registry. The aggregator is  
4 responsible for liaising with the registry, completing all registration documents, paying  
5 for serialization, etc. The aggregator is also the contact point for any follow-up including  
6 a government audit.

7  
8 Offset credits are NOT serialized and tracked by subproject. Ownership transfer and right  
9 to transact must be established prior to serialization. The registry will NOT allocate  
10 tonnes based on percent ownership shares, or subproject ownership.

11  
12 Any ownership transfers after a project is registered are considered as sales on the  
13 registry. All registry fees and processes apply.

14  
15 **Verification Considerations**

16  
17 Aggregated projects have additional complexity related to gathering and tracking data  
18 from a large number of small sources. This complexity can be challenging from a  
19 verification perspective and may increase the costs of third party verification relative to  
20 the total volume of offset credits being claimed.

21  
22 Verifiers are assessing information maintained in the aggregator's data management  
23 system, and will compare this information to original records retained by the subprojects.

24  
25 Sampling is done on a risk based approach. Complete records must be available for all  
26 subprojects for all reductions/removals being included in the aggregated project. AESRD  
27 cannot accept offset credits for compliance purposes that have missing or incomplete  
28 records.

29

## 4.0 Offset Project Implementation

This section provides basic information for a project developer implementing an offset project in Alberta.

### 4.1 Project Eligibility

The project developer must evaluate the activity against the eligibility criterion stated in Section 3.1 above and the approved quantification protocol<sup>4</sup>. If the project meets these minimum criteria, the project developer can implement the project.

If the project is a result of activity initiated before January 1, 2002, is otherwise required by law, cannot be quantified, or is generating emission reductions for use in other systems, such as Renewable Energy Certificates (RECs), the project will not be eligible under the Alberta offset system.

### 4.2 Protocol Selection

The project developer must select the appropriate protocol(s) for the offset project being developed.

#### Stackable Protocols

Offset protocols are stackable. That is, an offset project may incorporate multiple activities within one facility or site from several different protocols into a single project. If this is being done, the offset project plan must identify all protocols being applied to the project, and clearly document how the project meets all the requirements of each protocol. The project plan must identify any opportunities for double counting between the various protocols and explain actions taken to prevent double counting within the project.

#### Aggregated Projects

Aggregated projects use the same protocol for all sub-projects. Additional information on aggregated projects is available in Section 3.9.

*Note, AESRD is not required to approve any offset protocols if the protocols are found to be deficient or inconsistent with Alberta policy and/or program objectives.*

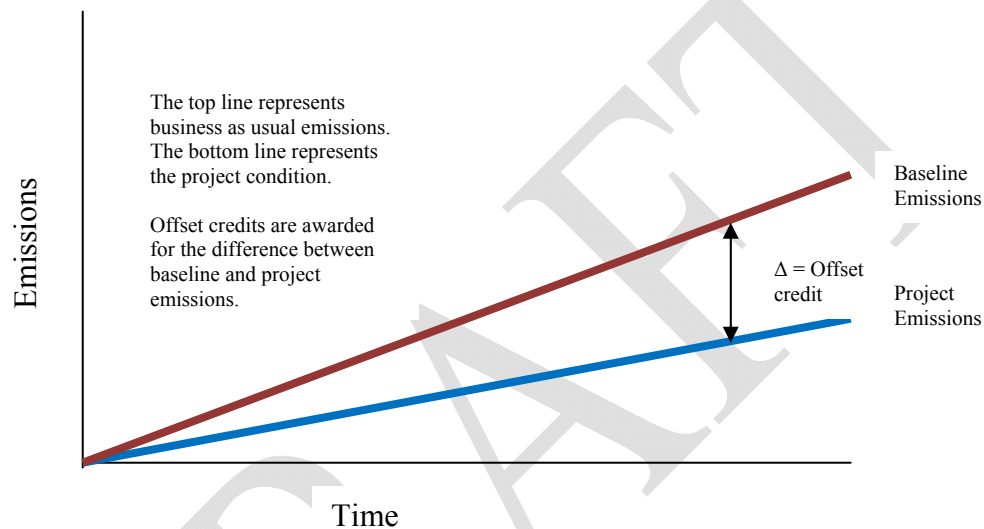
*It is prudent business practice not to sign people up to contracts for a specific activity until the activity has an approved protocol as the terms and conditions in the draft protocol are subject to change based on the protocol review process.*

<sup>4</sup> If the activity in question does not have an approved quantification protocol, the project developer should review the *Technical Guidance for Protocol Developers* to determine whether they wish to initiate development of a quantification protocol for the activity.

### 4.3 Baseline Conditions

The baseline condition for a project is a reasonable representation of conditions that would likely have occurred during the offset credit period had the offset project not been implemented. In other words, the baseline represents “business as usual” and the project represents a change from this practice. Greenhouse gas emission reductions achieved by a project are measured by comparing the emissions generated in the project to the emissions generated in the baseline. The difference between these two conditions yields the emission reductions/removals for the offset project.

**Figure 3: Offset credits as a function of change between the baseline and project condition.**



Baseline scenarios applicable to an activity are determined during protocol development. The project must be implemented according to the requirements stated in the protocol. See the *Technical Guidance for Offset Protocol Developers* for more information on specific baseline scenarios.

The baseline condition for a project will typically remain constant for the 8-year credit duration period. If a project is granted a 5-year extension, the project baseline must be updated to reflect the most current version of the protocol available.

*Note, any regulatory changes that affect the offset project, including the project baseline, will need to be addressed when the regulation comes into force.*

### 4.4 Project Condition

The project condition is a specific action targeted at reducing or removing greenhouse gas emissions, and may consist of one or more related activities developed according to a government approved protocol(s). The project condition may include modification of existing production, process, consumption, service, delivery or management systems, or introduction of new systems.

1  
2 Projects must be quantified according to the requirements stated in the approved  
3 quantification protocol(s).

#### 4 **4.5 Risk Assurance Factors**

5 Activity based reductions such as conservation cropping and afforestation projects are  
6 reversible activities. If the activity is stopped through, for example, a return to full-till  
7 farming or if trees are removed either through early harvest or natural disaster, the  
8 sequestered carbon would be released back to the atmosphere.

9  
10 Risk based assurance factors are based on historic information and known risks of  
11 reversal. They provide a conservative estimate of reversals that may occur over the  
12 project life. The factor applies to all credits generated under the protocol. These discounts  
13 are permanently retired against potential future reversal over the life of the project. The  
14 remaining reductions/removals achieved by the project are considered permanent offsets  
15 in the Alberta offset system.

16  
17 Reductions resulting from risk assurance discounting are effectively transferred to  
18 government to cover future liabilities that may result from factors beyond the control of  
19 the project developer. These reductions are permanently retired from circulation. They  
20 reductions cannot be serialized as offset credits and cannot be used to cover deliberate  
21 reversals or errors in an offset project that result in all or part of the project's offset  
22 credits being revoked.

23  
24 These assurance factors are assessed during protocol development and apply to all offset  
25 credits generated under the protocol.

#### 26 **4.6 Functional Equivalence (Consistency)**

27 Emission reductions are calculated by comparing greenhouse gas emissions under one  
28 scenario (the project condition) with greenhouse gas emissions under another equivalent  
29 scenario (the baseline condition). In order for this comparison to be meaningful, the  
30 project and the baseline **must** provide the same function and quality of products or  
31 services. That is, both the project and baseline must use a common metric or unit of  
32 comparison. For example, if a project is designed to reduce emissions by recovering  
33 waste heat from an industrial process, the emission reductions are compared to an  
34 equivalent level of heat generation under the baseline condition. In this example, the  
35 common unit would be the waste energy recovered in the project condition and the  
36 equivalent amount of energy that would have been produced in the baseline condition.

37  
38 Functional equivalence is assessed during protocol development.

#### 39 **4.7 Conservativeness, Accuracy, and Precision**

40 Offset projects must result in real, quantifiable, and verifiable reductions/removals using  
41 replicable means.  
42



1 **Conservativeness** ensures that emission reductions being claimed by a project are not  
2 overstated. Conservativeness is assessed within the range of uncertainty associated with  
3 the quantification methodology. The project developer is required to document the  
4 analysis and decisions around the conservative estimate used in developing the  
5 quantification methodologies for the reduction/removal activity.

6  
7 Note, conservative hedge factors cannot be used as a surrogate for an inability to quantify  
8 uncertainty. Neither the protocol nor the project can apply a conservative discount factor  
9 based on the fact that they are unable to obtain an accurate estimate of the uncertainty  
10 parameters for the project. **Project developers must be able to define the uncertainty  
11 range for parameters being used in the project.**

12  
13 **Accuracy** is the correctness associated with the quantification. The accuracy of the  
14 project calculations varies depending on the methodology being used. Direct  
15 measurement is considered more accurate than engineering estimates; however direct  
16 measurement may not be practical for every situation and in some cases, the most  
17 accurate methodology available may be cost prohibitive relative to the project. Minimum  
18 levels of accuracy are specified in the protocol quantification.

19  
20 Note, the accuracy, or understanding of uncertainty, supports system criteria for real and  
21 quantifiable emissions reductions/removals. Project developers must address the  
22 uncertainty in the project calculations to ensure that emission reductions/removals being  
23 calculated represent actual emission reductions.

24  
25 The **Precision** of a measurement system, also called reproducibility or repeatability, is  
26 the degree to which repeated measurements produce the same results. Projects  
27 quantification must have sufficient precision that measurements can be repeated by third  
28 parties (verifiers and auditors) to come to the same conclusion within materiality limits.

## 29 **4.8 Additionality**

30 Offset projects must result in reductions/removals of greenhouse gas emissions that are  
31 additional or incremental to what would have happened had the project not been  
32 implemented (i.e., the baseline). Additionality then, is the ability to quantify emission  
33 reductions that are beyond business as usual activities and regulatory requirements.

34  
35 Regulatory and industry common practice tests for additionality are assessed during  
36 protocol development. Projects need to demonstrate additionality by demonstrating they  
37 meet the conditions specified in the protocol, and that they result from actions taken on or  
38 after January 1, 2002.

## 39 **4.9 Project Expansion**

40 Projects initiated before 2002 that undergo a significant expansion may be eligible to  
41 generate offset credits for the expansion if the expansion meets the following criteria:  
42

- 1 • The expansion condition can be clearly separated from the original project  
2 condition. An example of this type of project would be a wind farm that has added  
3 additional turbines. Each turbine can be considered as a stand-alone project and  
4 emissions reductions achieved by the new turbine can be easily separated from the  
5 existing project.
- 6 • The project condition is integrated with the existing project and the expansion. An  
7 example of this would be a biofuel facility where the production capacity has  
8 increased. In order to qualify for credit generation on expansion activities, the  
9 project developer must provide a written proposal to AESRD and meet the  
10 following criteria:
  - 11 ▪ Project production has increased greater than 25 per cent;
  - 12 ▪ Project developers must have a clear, accurate basis for separating the  
13 emissions from the expansion phase and the existing project (i.e.  
14 separation between existing and expansion portions of the project must be  
15 able to pass verification); and
  - 16 ▪ Infrastructure investment is greater than 35 per cent of the cost to build a  
17 new facility capable of same level of production as the expansion volume.

18 Projects wishing to apply for an expansion project must submit a written request to the  
19 Director at the address provided in Section 3.2.

## 20 **4.10 Project Documentation**

21 Alberta requires all project documentation to be completed in accordance with program  
22 criteria provided. Minimum documentation and disclosure requirements are provided in  
23 templates included in the appendices and available from the registry. This documents are  
24 required as part of the project serialization process, and are made publicly available on  
25 the registry.

26  
27 Project developers are required to retain copies of all supporting records and data. This  
28 information will be used by the verifier to assess the greenhouse gas assertion.

### 29 **4.10.1 Offset Project Plan**

30 This document is created before the project is implemented and must be submitted to the  
31 registry as part of the required project documentation.

32  
33 The offset project plan is essentially a road map for the project. It describes how the  
34 project meets all Alberta offset system criteria, and how it will meet all the conditions  
35 indentified in the quantification protocol. It must speak to any changes or variations in  
36 the project condition relative to the quantification protocol and document project  
37 assumptions, types of records used to monitor the project, and emissions calculations.  
38 The offset project plan must include a simplified process flow diagram for the project,  
39 data flow diagrams, a monitoring plan, and other information used to support project  
40 implementation. This document describes the ideal project condition and is static for the  
41 credit duration period. Any deviations in operations must be noted in the offset project  
42 report.

2  
4 It is imperative that project developers  
6 carefully assess types of records needed  
8 and available to support project  
10 quantification. Projects must have  
12 sufficient and appropriate records to  
14 support project quantification.

16  
18 **Verifiers and government auditors will**  
20 **request a sample of raw data and**  
22 **supporting information as part of the**  
24 **project verification/audit. Projects that**  
26 **do not have appropriate supporting**  
28 **evidence will not be accepted as a**  
30 **compliance option under the *Specified***  
32 ***Gas Emitters Regulation*.**

34  
36 The verifier will compare project  
38 performance and emission reductions  
40 claims against this document to assess  
42 project implementation.

44  
45 The document may also be used by investors and others wishing to purchase the offset  
46 credits to understand the project and veracity of the emission reductions being claimed.

47  
48 The offset project plan template is available on AESRD’s website  
49 (<http://environment.alberta.ca/02275.html>) and is included in Appendix A. While the  
50 layout of the project plan may be adjusted to suit individual preferences, the content  
51 specified in the template must be included in the final project plan. If a section of the  
52 template is not applicable to a specific project, rationale for the exclusion **must** be  
53 provided. In general, the plan will contain:

54  
55 **Project scope:** explains the function of the project including all of the relevant  
56 assumptions, and must clearly identify which activities are included/excluded for  
57 the purposes of quantifying of greenhouse gas reductions.

58  
59 **Project description:** describes the offset project including the baseline and  
60 project conditions.

61  
62 **Project boundary:** describes the boundaries for the offset project. The project  
63 boundary may extend beyond the physical or geographical boundaries of the  
64 project’s infrastructure, or may be a smaller portion of a larger physical site  
65 boundary.

66  
67 **Inventory of sources and sinks:** is a complete list of sources and sinks relevant  
68 to the project conditions.

*Verifiers are required to sample records and raw data used to compile the offset project and support the greenhouse gas assertion.*

*Failure to produce appropriate records as stipulated in the protocol and any other supporting evidence needed to substantiate the emission reduction claim will result in the project being rejected by AESRD and the tonnes removed from the Alberta Emissions Offset Registry.*

*If unsubstantiated offset credits from the project have been submitted as a compliance option under the Specified Gas Emitters Regulation, the regulated facility that used the credits as a compliance option will be required to pay alternate compliance into the Climate Change and Emissions Management Fund.*

**Project baseline:** describes the baseline, including all calculations used to determine the baseline. If several baseline types are allowed in the protocol, the project developer must provide a rationale for the baseline type that was selected.

**Quantification Plan:** describes the methodology being used to quantify greenhouse gas emissions associated with the project. The quantification plan should include:

- A full list of parameters required for quantification indicating which parameters will be measured and which will be estimated;
- A description of the measurement and estimation procedures for each parameter;
- Supporting information to justify the measurement and/or estimation procedures (i.e. references for emissions factors, measurement equipment specifications);
- Information on the data quality management procedures to be used; and,
- Any flexibility mechanisms being used.

**Monitoring Plan:** explains how the measured parameters required for calculating the emission reductions or removals for the project will be monitored and input into the data management system. It describes exactly how measurements will be carried out and may include specifications for monitoring equipment to be used, locations of sampling points, frequency of sampling events, data collection methodology, and other details.

**Quality Assurance/Quality Control (QA/QC) Plan:** describes what controls are in place to ensure the accuracy and correctness of data and associated calculations and may include file access and security, manual vs. automated data transfers, independent data reviews, and staff training.

**Process flow and data flow diagrams:** provide a reference point for third party verifiers to understand the processes associated with the project and how data is being handled.

#### 4.10.2 *Offset Project Report*

The offset project report is completed annually or prior to verification. It describes how the project was implemented and provides documentation and evidence to support the project operating conditions that gave rise to the greenhouse gas emission reductions/removals being claimed, including any anomalies or deviations that occurred.

The project report template is available from AESRD's website (<http://environment.alberta.ca/02275.html>) and is provided in Appendix B. Project developers are required to follow this template. While the layout of the project report may be adjusted to suit individual preferences, the content specified in the template **must**, in all cases, be discussed. Where the project developer feels a category is not applicable

1 to the project, the project developer **must** provide rationale explaining why the  
 2 information is not necessary to the project.

3  
 4 In general, the report will contain:

- 5 • The time period covered by the report. This is known as the reporting period;
- 6 • Project details and information demonstrating how the project was  
 7 implemented relative to the project plan and approved quantification protocol;
- 8 • Any changes in details and/or implementation of the project that arose during  
 9 the reporting period including any anomalies or changes in project  
 10 implementation relative to what was stated in the project plan. The verifier  
 11 will verify changes against the project plan to support the project review;
- 12 • Quantified emission reductions clearly articulated as tonnes of CO<sub>2</sub> e removed  
 13 or reduced per vintage year; and
- 14 • Be signed by the project developer(s).

15  
 16 **4.10.3 Spatial Locator Template for Aggregated Projects**

17 A spatial locator template must be completed for all aggregated projects. See Section 3.9  
 18 for more information.

19  
 20 A copy of the spatial locator template applicable to the project type can be requested  
 21 from the registry and should be presented to the verifier as part of the supporting  
 22 information for the project.

23  
 24 **4.10.4 Greenhouse Gas Assertion**

25 The project developer must calculate the number of  
 26 tonnes of greenhouse gas emissions  
 27 reductions/removals achieved during the reporting  
 28 period to express a statement on the total tonnes of  
 29 greenhouse gas emission reductions/removals being  
 30 claimed as offset credits. This is known as a  
 31 greenhouse gas assertion. The verifier is verify the  
 32 project information to determine whether the  
 33 greenhouse gas assertion is correct.

*Note: Serialization must be done for whole tonnes. Greenhouse gas assertions containing partial tonnes will not be accepted by the registry.*

34  
 35 The assertion must identify emission reductions/removals of the individual greenhouse  
 36 gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, and PFCs) identified in the *Climate Change and*  
 37 *Emissions Management Act* applicable to the project. All emissions must be reported as  
 38 tonnes of carbon dioxide equivalent (CO<sub>2</sub> e) based on the conversion factors in Table 2.  
 39

1 **4.10.5 Statutory Declaration**

2 Offset project developers are required to complete and submit a statutory declaration as  
 3 part of the project registration on the registry. The statutory declaration is a legally  
 4 binding assertion stating that all offset credits being serialized for the project have only  
 5 been listed on the registry and have not been registered in any other offset system.  
 6 Providing a false or fraudulent declaration may result in the cancellation of the offset  
 7 project and all associated offset credits being revoked from the Alberta registry.

8  
 9 Providing false or misleading information is a contravention of the Criminal Code of  
 10 Canada and could carry, upon conviction, penalties including fines or imprisonment.

11  
 12 Two statutory declaration forms are available from the registry, one for new credits being  
 13 serialized on the registry, and one for credits that have been delisted off a different  
 14 registry prior to being listed on the Alberta registry. Examples are also available in  
 15 Appendix D.

16 **4.10.6 Validation (Optional)**

17 Offset project validation is optional in the Alberta offset system. Validation is a business  
 18 risk management tool that can support the project design and inform appropriate  
 19 monitoring, data collection, and calculations for the project prior to the project being  
 20 implemented. Additional information on project validation is available in ISO 14064.  
 21 Validation guidance is also available from the Climate Change and Emissions  
 22 Management Corporation at [www.ccemc.ca](http://www.ccemc.ca) .

23

<b>Validation</b> occurs before the project begins (ex ante) and focuses on:	25
• Whether appropriate baseline and project conditions are used; and	27
• Whether the calculations of potential offsets are correct.	
Validation occurs once and requires technical expertise in the project area.	29
<b>Verification</b> occurs once reductions have been generated (ex post), and focuses on:	31
• Whether the calculations of actual offsets are correct;	33
• Data integrity and consistency with offset project plan and quantification protocol;	35
• Whether data is complete and accurate and conforms to verification criteria; and	37
• Whether there is sufficient and appropriate records to support the greenhouse gas reductions being claimed.	
Verification occurs at the end of each reporting period and requires technical expertise in the project area.	

38 **4.11 Offset Credit Transactions**

39 Offset credit transactions occur through bilateral negotiations between the buyer and  
 40 seller. Below is some general guidance intended to support these negotiations, but does  
 41 not replace legal advice and contracting obligations.

### 1 **4.11.1 Contracting Considerations**

2 Contracting occurs within the private sector and is negotiated between affected parties.  
3 Neither AESRD nor the registry review or provide advice on contracts. Persons entering  
4 into contract negotiations should seek legal advice from a qualified lawyer.  
5

6 Below are some general contracting best practices that should be considered during  
7 contract development and contract negotiations.

- 8 • Terms of the contract, including price being offered for the offset credits and any  
9 additional fees must be clearly disclosed during negotiations;
- 10 • Other conditions, including future contracting obligations must be disclosed;
- 11 • The contract model (direct purchase or agent model) must be clearly explained;
- 12 • Liability terms and conditions must be clearly explained; and
- 13 • Both parties must be given reasonable time to review the contract, which may  
14 include having a copy of the contract reviewed by legal council.  
15

### 16 **Aggregated Project Considerations**

17 Contracts should speak to the type of agency model being used in the contract. Generally  
18 speaking, contracts will assumed to be agency agreements between the aggregator  
19 (project developer) and individual project developer (e.g., land owner/farmer), unless the  
20 contract explicitly states the aggregator is purchasing offset credits from the individual  
21 project developer. Agency agreements should consider and address the following:

- 22 • Who is the client;
- 23 • How the client's interests are being protected and promoted including:
  - 24 ○ Confidentiality and protection of information;
  - 25 ○ Full disclosure in the client-agent relationship; and
  - 26 ○ Full accounting and transparency pertaining to the client's interests;
- 27 • What information must be disclosed to the client, including, for example:
  - 28 ○ A clear statement of expenses and costs;
  - 29 ○ Applicable fees, including commission that might be charged;
  - 30 ○ Expectations and requirements for record retention, project  
31 documentation, and access to information for the purposes of third party  
32 verification and government audit; and
  - 33 ○ The type of agency relationship with the client (sole agent, or transaction  
34 broker);
  - 35 ○ Contract term and future contracting obligations, if any, that are being  
36 applied to the contract.  
37

### 38 **4.11.2 Liability and Compliance**

39 The Alberta offset system is enabled under the *Climate Change and Emissions*  
40 *Management Act* and the *Specified Gas Emitters Regulation*.

41  
42 Offset credits that do not meet program requirements will be revoked and the regulated  
43 facility that submitted the credits for compliance will be required to seek alternate  
44 compliance. Notwithstanding AESRD's true-up mechanisms for compliance shortfalls,

1 liability between the buyer and seller for revoked offset credits should be addressed in  
2 contractual agreements between affected parties.

3  
4 **Notwithstanding any agreement between an aggregator (project developer) and the**  
5 **individual project developer (e.g., land owner/farmer), the aggregator shall not and**  
6 **can not pass on any regulatory liability for errors in design of the aggregator’s data**  
7 **management system.**

#### 8 **4.11.3** *Financial Liability and Credit Rating*

9 Regulated facilities purchasing offset credits as a compliance option are generally large  
10 companies with minimum security requirements for business transactions. These  
11 requirements provide assurance against the uncertainty the companies face between  
12 submitting offset credits for compliance purposes and final government approval of the  
13 offset credits.

14  
15 Sellers, on the other hand, tend to be small, unrated companies that are unable to offer the  
16 security buyers are seeking. In these cases, the buyer and seller are encouraged to look at  
17 alternative arrangements to address this risk. These arrangements should be clearly  
18 articulated through contractual agreement between the two parties.

19  
20 All parties are required to do their own due diligence during transactions. If the rules of  
21 the system and the protocol are followed, there should be minimal risk to all parties.  
22 However, parties should ensure they have taken appropriate and sufficient care to review  
23 contracts, terms and conditions, and supporting documentation pertaining to the project.  
24 Due diligence is considered a defense under the *Climate Change and Emissions*  
25 *Management Act*.

#### 26 **4.11.4** *Business Risks*

27 Project developers are encouraged to assess business risks during protocol development  
28 and should consider documenting these risks and associated risk management options in  
29 the offset project plan. This risk management plan can help outline options to reduce,  
30 mitigate, transfer to third party, and/or eliminate the risks.

#### 31 **4.11.5** *Intangible Commodity*

32 Offset credits are intangible commodities that are only made real once verified. As such,  
33 verification and registration on the registry helps to establish boundaries for these  
34 commodity items. However, offset credits are only as good as the project implementation  
35 including the data and records available to support the greenhouse gas emission  
36 reductions/removals. Poor data management systems and an inability to produce  
37 appropriate records could compromise the ability for a verifier to come to a conclusion on  
38 the greenhouse gas assertion or verify the project emission reductions/removals. Project  
39 developers are encouraged to develop robust data management systems and assess  
40 availability of records to support project implementation.

41  
42 Offset credits are revocable licenses. Where issues are identified, or errors are found,  
43 AESRD will require corrections to the offset project. Unsupported credits will be revoked



1 from the registry and companies will be required to pay alternate compliance into the  
2 *Climate Change and Emissions Management Fund*. AESRD's error correction policy is  
3 discussed in more detail in Section 7.4.

4 **4.11.6 Pricing**

5 Transactions occur through bilateral contracts negotiated between the buyer and seller.  
6 Pricing information is not tracked by AESRD. AESRD recognizes that the *Climate*  
7 *Change and Emissions Management Fund* provides a price ceiling for investment in  
8 offset credits. This price is currently set at \$15 per tonne of CO<sub>2</sub> e and is likely to change  
9 over time. Price per offset credit varies by project. Project developers can improve the  
10 quality of their offset project and the associated value of their offset credit by having a  
11 transparent, well-organized and supported project.  
12

DRAFT

## 5.0 Data Management and Document Retention

The *Regulation* requires *ex post* verification of all offset credits being registered on the registry. Data management and the availability of correct, accurate, and complete supporting data are fundamental to support the implementation and verification of an offset project. Robust data management systems can reduce the likelihood of errors in data collection and reduce verification costs. Ensuring appropriate quality control measures are in place will provide greater confidence in the overall project and associated emission reductions.

### 5.1 Data Management

Data management can be manual, automated or a combination of the two, and may range from internally developed tracking sheets to third party software. Systems that rely more heavily on manual data transfers and excel spread sheets are inherently less robust than more automated systems. Automated systems, if correctly set up, tend to be more robust than manual systems, and therefore provide a higher level of accuracy and security around data handling.

Project developers must develop and make available data flow charts for their specific system including sample calculations for all calculations used in the project. Verifiers will want to assess the equations used in automated systems to ensure the data management systems are correctly calculating project information.

Data controls are procedures conducted to ensure that the data is complete, accurate, valid, and not subject to corruption. Data controls are integral to the data management system and should serve to meet the following objectives:

- Completeness – ensuring the data is complete according to the offset project plan and quantification protocol;
- Accuracy - ensuring the data has been calculated appropriately and the measurements reflect the correct values;
- Validity - making sure no erroneous information is introduced into the data;
- Restricted access - addresses the security of the data management system.

Controls should exist throughout the data management system, but are essential whenever there is a transfer or exchange of data or information. Examples of data controls include passwords on computers, read access requirements on files, reasonability limits on data inputs, record length checks on file transfers, approvals and testing procedures for algorithm changes, distribution lists for reports, and management review of reports.

*Note, AESRD has adopted a reasonable level of assurance starting with the 2012 vintage year credits. Reasonable assurance verification will place a higher emphasis on understanding and assessing the data management system and in being able to retrace the data from the point of collection to end calculations. More robust, transparent, and automated systems will be better positioned to support this higher level of assurance.*

1  
2 In all cases, developing and implementing good quality control/quality assurance  
3 (QA/QC) checks can reduce the likelihood of errors and improve confidence in the  
4 overall reporting. Security access also improves the overall robustness of the system and  
5 general comfort with the data.  
6

## 7 **5.2 Project Records and Supporting Data**

8 It is the responsibility of the project developer to collect and track all supporting  
9 information and data needed to quantify greenhouse gas emissions. Offset credits with  
10 insufficient or incomplete records will not be accepted as a compliance option under the  
11 *Specified Gas Emitters Regulation* and will be revoked from the Alberta Emissions Offset  
12 Registry.  
13

14 **Verifiers are required to review a sample of raw data and other supporting**  
15 **information as part of the verification.** Project developers can support the verification  
16 process by having this information readily available in a format that can be sampled by  
17 the verifier during the verification.

## 18 **5.3 Data Retention**

19 AESRD requires project developers maintain supporting information for the project  
20 including all raw data for a period of 7 years **after** the end of the project credit duration  
21 period. For example, on an 8-year crediting period, documents will need to be retained  
22 for up to 15 years. On a 20-year crediting period, documents would need to be retained  
23 up to 27 years to support verification and government audits

## 6.0 Third Party Verification

The Alberta offset system relies on *ex post* verification to support the overall integrity of the program. This means that the emission reduction is first created, then verified to confirm the emission reductions/removals claimed by the project. All offset credits must be verified before they can be registered on the registry. This requirement for third party verification is consistent with international standards requiring independent, third party verification for greenhouse gas assertions.

Alberta has released detailed guidance for verifiers conducting greenhouse gas verification in the Alberta offset system. This guidance is available on AESRD's website in the *Technical Guidance for Greenhouse Gas Verifications at Reasonable Level Assurance*. Section 6 of this document contains specific verification guidance for offset project developers.

The verifier is required to assess the project condition, including raw data, and offset project report against the offset project plan and approved quantification protocol(s) to determine if the emission reductions/removals being claimed in the greenhouse gas assertion are correct to a reasonable (audit) level of assurance. The verification must flag discrepancies in reported data, identify areas where the interpretation in the reported data differs from the guidance provided by AESRD, and flag unresolved immaterial discrepancies.

*Note, historic offset credits already serialized and registered on the registry remain valid until they are retired for compliance or voluntarily removed from the registry.*

The project developer is responsible for ensuring that all project information is complete and correct before the verification is finalized. This includes resolving any material verification findings identified.

**The verifier cannot issue a statement of verification where there are unresolved material discrepancies. Where material discrepancies are identified, the project developer is required to make corrections to the project before the verifier can sign-off on the greenhouse gas assertion.**

The greenhouse gas assertion and supporting information, including the spatial locator template, for a project cannot be changed once the verifier has signed the statement of verification. Any changes made to these documents after the verifier has issued a statement of verification will void the verification.

If changes are required after the verification, the verifier must assess the changes consistent with the subsequent events requirements stated in Section 5.3 of the *Technical Guidance for Greenhouse Gas Verifications at Reasonable Level Assurance*

## 6.1 Verification Fundamentals

### 6.1.1 Terminology

**Assurance Level** is the confidence level required by the program authority and used by the verifier to assess the greenhouse gas information to express a written conclusion on an offset project assertion.

**Auditor** is a person meeting the requirements of Section 18 of the *Specified Gas Emitters Regulation* that is hired by AESRD to review an offset project on behalf of the government.

**Designated signing authority** refers to an individual who has binding authority for the verification company. This person must meet the requirements of section 18 of the *Specified Gas Emitters Regulation* and can be the lead verifier. This person's signature is provided on behalf of the verification team on the statement of qualifications, statement of verification, and conflict of interest checklist.

**Lead verifier** is the individual leading the verification team. This person is responsible for coordinating the verification and ensuring that appropriate expertise is available to review all aspects of the greenhouse gas assertion.

**Limited assurance** is a moderate (review) level of assurance, or negative assurance. Limited assurance is based on identifying anomalies rather than confirming an assertion.

**Materiality** refers to the cumulative, absolute magnitude of errors, omissions or misrepresentations that would affect the greenhouse gas assertion. Materiality is discussed in Section 6.1.7.

**Peer reviewer** is an independent qualified professional who reviews the verification. This person cannot be the lead verifier or designated signing authority.

**Reasonable assurance** is a high level of assurance, or positive assurance. Reasonable assurance is a direct factual statement expressing the opinion of the verifier.

**Verifier** describes the person or persons that meet the requirements of Section 18 of the *Specified Gas Emitters Regulation* and undertake the independent, third party review of the offset project and associated greenhouse gas assertion.

**Verification** describes the process by which an objective third party examines or reviews an assertion such as the greenhouse gas assertion for an offset project and provides an opinion or conclusion on the assertion.

**Validation** refers to an independent third party review of the offset project conditions before the project is initiated. Validation is optional in the Alberta offset system.

### 1 6.1.2 *Qualifications of the Verifier*

2 The verifier (lead verifier and verification team) is defined as a qualified person or  
3 persons that make up a verification team that verifies and provides assurance on the  
4 greenhouse gas assertion for an offset project.

5  
6 The verification team must have technical expertise and detailed knowledge in the  
7 following areas:

- 8
- 9 • Data audit practices and data verification standards;
- 10 • Detailed knowledge of the *Specified Gas Emitters Regulation*, Alberta offset  
11 system, and associated requirements;
- 12 • Verification criteria and the appropriate application of these criteria within the  
13 defined scope of the verification; and
- 14 • Technical expertise for the sector the verification team plans to operate in  
15 including:
  - 16 ○ The specific greenhouse gas activity and technology;
  - 17 ○ Identification and selection of greenhouse gas sources and sinks;
  - 18 ○ Quantification, monitoring and reporting, including relevant technical and  
19 sector issues;
  - 20 ○ Situations that may affect the materiality of the greenhouse gas assertion,  
21 including typical and atypical operating conditions; and
  - 22 ○ Be able to operate as a business including, policies, finances, and quality  
23 review of products or services.
- 24

25 Verification teams are required to bring in appropriate resources such as **subject matter**  
26 **experts** (e.g., professional agrologist; professional forester, etc.) needed to augment audit  
27 team skills and expertise.

28  
29 Verification teams are strongly encouraged to use a team approach that blends skill sets  
30 of both accountants and professional engineers to support greenhouse gas verification.  
31 Verification teams need to have the capacity to accurately assess a spectrum of issues  
32 from the completeness of the data inventory and appropriateness of  
33 methodology/emission factors being used to the robustness of the data management  
34 system.

35  
36 The **designated signing authority** must sign and submit the statement of qualification,  
37 statement of verification, and conflict of interest checklist provided in the compliance  
38 report form. The designated signing authority must be an accountant registered under the  
39 *Alberta Regulated Accounting Profession Act* (or equivalent), or a professional engineer  
40 registered under the *Engineering, Geological and Geophysical Professions Act* (or  
41 equivalent) in good standing with the professional organization to which they belong.  
42 This individual must be trained in one of the three acceptable verification methodologies  
43 discussed in Section 6.1.5.

44  
45 AESRD strongly encourages the lead verifier to be the designated signing authority.  
46

### 1 **6.1.3 Accreditation**

2 AESRD will review accreditation options in 2013 to assess alignment with verification  
3 requirements in the specified gas emitters program and Alberta offset system.

### 4 **6.1.4 Independence**

5 Independence is a surrogate measure for the objectivity of the verifier. It is a key  
6 qualification for a verifier. The verifier must be able to demonstrate independence  
7 including having sufficient and appropriate systems in place to document independence  
8 of all verification team members. The threats to independence are:

9

#### 10 **Self-interest**

11 This occurs when the verifier or a member of the verification team or a person in the  
12 chain of command for the verification can directly benefit from a financial interest in the  
13 verification client, or when there is any other self-interest conflict with respect to the  
14 verification client. For example:

- 15 • Owning shares of the verification client;
- 16 • Having a close business relationship with the client;
- 17 • Contingent fees relating to the results of the verification; or
- 18 • Potential employment with the client.

19

#### 20 **Self-review**

21 This occurs when a member of the verification team could be in a position of reviewing  
22 his or her own work. For example:

- 23 • Involvement of the verification organization in the compilation of the data  
24 contained in the assertion, including documentation;
- 25 • A verification organization member performing non-verification services (e.g.,  
26 consulting) that directly impinge on the client's assertion, such as implementing  
27 the facility's greenhouse gas or production data management systems; or
- 28 • A member of the verification team having previously been a greenhouse gas or  
29 production data compiler of the verification client or who was employed by the  
30 verification client in a position to exert direct and significant influence over the  
31 client's assertion being reviewed.

32

#### 33 **Advocacy**

34 This occurs when a verifying organization or a member of the verification team or a  
35 person in the chain of command for the verification promotes, or may be perceived to  
36 promote, a client's position or opinion to the point that objectivity may, or may be  
37 perceived to be, compromised. For example:

- 38 • Dealing in, or being a promoter of, emission performance credits on behalf of a  
39 client;
- 40 • Advocating on behalf of the client to advance a particular position or point of  
41 view on an issue that directly affects the greenhouse gas assertion; and

- Acting as an advocate on behalf of the client in litigation or in resolving disputes with third parties.

#### **Familiarity**

This occurs when, by virtue of a close relationship with a client, its directors, officer or employees, the firm or a member of a verification team becomes too sympathetic to the client's interests. For example:

- A person on the verification team has a close personal relationship with a person who is in a critical greenhouse gas or production compilation role at the client; or
- Acceptance of significant gifts or hospitality from the client.

#### **Intimidation or Economic Implications**

This occurs when a member of the verification team or a person in the chain of command is deterred from acting objectively and exercising professional skepticism by threats, actual or perceived, from the directors, officers or employees of the client. For example:

- The threat of being replaced as third party verifier due to a disagreement with the application of greenhouse gas quantification methodology;
- Fees from the client represent a large percentage of the overall revenues of the verifier;
- The application of pressure to inappropriately reduce the extent of work performed in order to reduce or limit fees; or
- Threats arising from litigation with a client.

If it is determined there is a conflict of interest and both parties wish to pursue the verification, written evidence must be provided to AESRD prior to the verification describing the actions that will be taken to mitigate the conflict in order to preserve actual and perceived independence. AESRD will assess all conflict of interest cases. In cases where it is determined that a conflict of interest cannot be effectively managed, the project developer will be required to select an alternate verifier.

AESRD recognizes that some familiarity with a facility and/or processes is helpful in understanding and reviewing an offset project against claimed emission reductions. However, AESRD also recognizes that this can compromise a third party verifier's impartiality over the long-term.

Verifiers (company and lead verifier) can complete a maximum of **five** consecutive verifications for an offset project. A mandatory **two** year break is required before the verifier (company and/or lead verifier) can undertake additional verifications for the offset project.

Aggregation companies that compile several aggregated offset projects per year may utilize the same verifier for a maximum of **eight** consecutive verifications. A minimum **two year** break is required before the verification company/lead verifier can be rehired.



1 **6.1.5 Verification Standards**

2 Verifiers are required to use the ISO 14064-3 verification standard and any other  
3 additional standards that the respective professions may require, which include for  
4 example,

- 5 • Standards for Assurance Engagements, Canadian Institute of Chartered  
6 Accountants (CICA) Handbook – Assurance Section 5025; and
- 7 • International Standard on Assurance Engagements (ISAE) 3410 – Assurance  
8 Engagements on Greenhouse Gas Statements

9  
10 These standards ensure a consistent level of rigour in the verification process such that a  
11 peer verifier or auditor would come to the same conclusion as the verifier.

12  
13 The following documents provide guidance to assist the verifier in completing the  
14 verification:

- 15 • Climate Change and Emissions Management Act;
- 16 • Specified Gas Emitters Regulation;
- 17 • Government approved Offset Quantification protocol (see  
18 <http://environment.alberta.ca/02275.html> for a complete list);
- 19 • Technical Guidance for Offset Project Developers;
- 20 • Technical Guidance for Greenhouse Gas Verifications at Reasonable Level  
21 Assurance; and
- 22 • Project records and documentation.

23  
24 **6.1.6 Signatures**

25 The designated signing authority<sup>5</sup> for the verifier must be a chartered accountant or  
26 professional engineer and may be the lead verifier. This person must have the ability to  
27 bind the corporation. The signing authority must sign and submit an original statement of  
28 qualification, statement of verification, and conflict of interest to the project developer as  
29 part of the verification report. **Signatures on behalf of a corporation are not**  
30 **acceptable under the *Specified Gas Emitters Regulation*.**

	33
The <i>Specified Gas Emitters Regulation</i> requires the third party verifier to be an individual. If a	35
company wishes to sign on behalf of the Corporation, sign-off must be done as:	37
Company Name	39
Per [name and signature of Corporate Binding Official]	41
	43

<sup>5</sup> For the purposes of the verification for the Alberta offset system, the lead verifier and signing authority do not need to be the same person. The lead verifier can be a qualified individual with appropriate expertise that is not a chartered accountant or professional engineer. In these cases, a chartered accountant or professional engineer must provide a peer review and act as the signing authority for the verification.

1  
2  
3 The *Electronic Transactions Act* allows for the use of electronic signatures in place of  
4 written signatures. The electronic signature must be sufficient to identify the person  
5 signing and be consistent with the purpose of the document or record being signed.  
6 AESRD will accept electronic signatures for the purposes of compliance under the  
7 *Specified Gas Emitters Regulation*; however, AESRD reserves the right to request signed  
8 originals where the electronic signature is ambiguous or cannot be verified.

#### 9 **6.1.7 Verification Criteria**

10 Verification criteria is established by the lead verifier prior to the site visit. Criteria must  
11 be set to test the projects adherence to the offset quantification protocol, regulatory  
12 requirements in the *Specified Gas Emitters Regulation*, consistency between project  
13 condition and baseline as defined in the offset project plan and offset project report, and  
14 the authenticity of the reductions being claimed in the greenhouse gas assertion. As such,  
15 verification criteria will vary from project to project, and may be more detailed and  
16 rigorous for more technically complicated projects, including aggregated projects.

17  
18 An overview of the verification criteria must be included in the verification report.

#### 19 **6.1.8 Sampling and Review of Records**

21 Verifiers and auditors are required to  
23 ensure the project developer has  
25 collected sufficient and appropriate data,  
27 records, and supporting information to  
29 substantiate the greenhouse gas  
31 reductions/removals being claimed. This  
33 includes a review of the data  
35 management system and input data for  
37 the project, equations, assumptions,  
39 project monitoring, process flow  
41 diagrams, data flow diagrams, and other  
43 records deemed necessary by the  
44 approved quantification protocol and verifier.

*Projects that have failed a government  
audit have typically failed due to  
incomplete or missing records and  
poor data management systems.*

*The verifier must be able to pull a  
reasonable sample to assess project  
conformance with program  
requirements.*

45  
46 **Third party verifiers cannot sign off on projects that have insufficient or incomplete**  
47 **supporting records.**

#### 48 **6.1.9 Materiality**

49 Materiality refers to a threshold for errors, omissions or misrepresentations  
50 (discrepancies) in the greenhouse gas assertion. Verifiers cannot issue a positive  
51 assurance statement if there are unresolved individual or aggregated discrepancies above  
52 the materiality threshold. **Project developers are responsible for addressing all**  
53 **material discrepancies identified by the verifier.**  
54

1 The materiality threshold for compliance with the Alberta offset system has been set at 5  
2 per cent consistent with generally accepted materiality thresholds for greenhouse gas  
3 verifications and for financial audits. Errors under 5 per cent are deemed **immaterial**. A  
4 verifier may issue a statement of verification for a project that has unresolved **immaterial**  
5 discrepancies. Errors over 5 per cent are considered **material** and must be corrected  
6 before the verification statement is issued.

7  
8 **Quantitative discrepancies** are numerical errors where the discrepancy magnitude can  
9 be estimated or calculated to a reasonable degree of accuracy.

10  
11 **Qualitative discrepancies** are non-numerical discrepancies and maybe difficult to  
12 quantify. These include inconsistent methods, facility boundary issues, misleading  
13 presentation of circumstances, poor data handling or record keeping, and lack of  
14 transparency. These discrepancies can erode a third party verifier's ability to reach a  
15 necessary level of comfort with the greenhouse gas assertion.

16  
17 The verifier can issue **material** finding for qualitative discrepancies if the discrepancies  
18 are significant enough to question the validity of the greenhouse gas assertion.  
19 Determining whether a material, qualitative discrepancy has occurred is at the  
20 professional judgment of the verifier.

21  
22 AESRD has not set a **negligible** emissions limit for offset projects due to the high degree  
23 of variability in offset project size and relative emission reductions opportunities. Instead,  
24 negligible emissions are assessed during protocol development. Projects must quantify all  
25 sources and sinks included in the protocol quantification requirements.

#### 27 **6.1.10** *Level of Assurance*

28 AESRD requires a **reasonable** (audit) level assurance for all greenhouse gas emissions  
29 reductions/removals verifications<sup>6</sup>.

#### 31 **6.1.11** *Peer Review*

32 AESRD requires peer review as part of the verification process. This process requires that  
33 persons different from those who undertook the fieldwork perform a final evaluation of  
34 the evidence and conclusions of the verification team. The name and qualifications of the  
35 peer reviewer must be provided in the verification report along with the members of the  
36 verification team.

---

<sup>6</sup> Reminder: Alberta will be adopting reasonable level assurance for all offset credits created and verified after January 1, 2012.

## 6.2 Verification Process

### 6.2.1 Engaging a Third Party Verifier

The project developer is responsible for engaging a verifier to conduct the verification of the offset credits being serialized on the Alberta Emissions Offset Registry. The project developer must ensure that the verifier hired to complete the verification meets the requirements for a verifier identified in Section 6.1.2, and the independence requirements described in Section 6.1.4.

The verifier will do a client evaluation to assess the client, the offset project including type and availability of records to support the verification, and verification team. The verifier may decline the work if client evaluation causes the verifier to believe the project has a high likelihood of not passing a verification.

### 6.2.2 Planning the Verification

The verifier will develop a detailed internal verification plan and sampling plan to guide the verification, which are **not** shared with the project developer.

The verifier is required to disclose the following to the project developer prior to the site visit:

- The verification objective, scope and level of assurance being used;
- The preliminary greenhouse gas assertion;
- The program criteria being used;
- The assurance standard being used;
- Members of the verification team;
- A description of the general process that will be used;
- A list of requested documents and records;
- A preliminary schedule of activities for the verification; and
- A request for resources.

The verifier and project developer should determine a reasonable timeframe and schedule for the verification. This will include identifying key contacts for the project, setting dates for site visits, and estimating a completion date for the verification. This allows both parties to set up an appropriate verification schedule to complete the verification as efficiently as possible.

### 6.2.3 Site Visits

Verifiers are required to conduct a site visit as part of the verification. Site visits are used to help confirm the project condition, greenhouse gas sources and sinks, data management systems, measurement/estimation methods, and boundaries for the project condition, and records.

1 In some cases, such as aggregated projects, it may not be practical to visit all sites each  
 2 year. Site visits should be undertaken on a sample basis. Justification for the sample size  
 3 and selection process must be provided in the verification report.

4  
 5 Access to sites selected for site visit must be granted. Failure to grant access to the  
 6 verifier may result in a qualified audit finding.

7 **6.2.4 Access to Information and Supporting Materials**

8 The project developer must provide sufficient information to allow the verifier to  
 9 evaluate emission reductions/removals being claimed in the greenhouse gas assertion.  
 10 Documents and information required to complete the verification will be project specific  
 11 and may include, but are not limited to:

- 12 • Supporting information for the baseline and project condition;
- 13 • A description of the site processes and project;
- 14 • A simplified process flow diagram ;
- 15 • A data flow diagram and sample calculations;
- 16 • An inventory of greenhouse gas sources and sinks;
- 17 • A description of the data management system(s) and quantification protocol used  
 18 to calculate the emissions reductions;
- 19 • Key supporting documents including invoices, receipts, calibration records, lab  
 20 analysis, etc.;
- 21 • QA/QC records; and
- 22 • Record of assumptions used in the project.

23  
 24 The project developer can assist the verification process by having documents and  
 25 records collated and available for the verifier prior to the commencement of the  
 26 verification.

27 **6.2.5 Close out meeting**

28 The verifier is encouraged to provide the draft report to the project developer before the  
 29 verification is finalized and the statement of verification issued. Parties may schedule a  
 30 close-out meeting to review the verification findings and attempt to resolve outstanding  
 31 issues prior to issuing the statement of verification.

32 **6.2.6 Verification Report**

33 The verification report is issued by the verifier once the project review is complete and it  
 34 has been determined that the project has no unresolved material errors. The verification  
 35 report provides a summary and discussion of the verifier’s verification procedures and  
 36 results. It must be submitted to the registry as part of the supporting documentation for  
 37 the offset project. The report should be sufficiently complete to provide the registry,  
 38 prospective buyers, and AESRD assurance on the quality of the verification.

39  
 40 The verification report should follow the structure outlined in Table 5 below.

41

1 **Table 5: Standardized third party verification report format**

2

Verification Section	Offset Project Content	Further Comments and Description
<b>Summary</b>	<p>Summary table containing:</p> <ul style="list-style-type: none"> <li>• Offset project identification information</li> <li>• Offset project contact information</li> <li>• Verification objective</li> <li>• Verification summary</li> <li>• Verification team members</li> <li>• Report and audit dates</li> </ul>	<p>This section must provide a brief overview of the verification. Use of the standardized format provided in templates facilitates government review.</p>
<b>Introduction</b>	<p>Provide an introduction to the offset project and the verification. This must include a description of the:</p> <ul style="list-style-type: none"> <li>• Project; and</li> <li>• Project boundary.</li> </ul> <p>This includes:</p> <ul style="list-style-type: none"> <li>• The offset project baseline;</li> <li>• A summary of changes to the baseline since the project start date; and</li> <li>• A summary of changes at the offset project since the project start date.</li> </ul>	<p>Boundaries should be defined by:</p> <ul style="list-style-type: none"> <li>• Geographical</li> <li>• Organization</li> <li>• Activities and processes</li> <li>• Greenhouse gas inventory</li> <li>• Relevant greenhouse gases</li> <li>• End products</li> <li>• Time period</li> </ul> <p>If information is excluded, justification must be provided.</p> <p>Process flow diagrams and aerial photos assist in understanding the scope of the verification.</p> <p>The purpose of the baseline description is to ensure that it is still applicable to the project. The discussion should include identification of:</p> <ul style="list-style-type: none"> <li>• The major sources of emissions/reductions/removals; and</li> <li>• The calculations used.</li> </ul>
<b>Objective</b>	<p>Discuss the objective of the verification.</p>	<p>The objective of the verification should be to express an opinion rather than a particular conclusion.</p>
<b>Scope</b>	<p>Discuss the scope of the verification.</p>	<p>The scope should align with the description of the Offset project. Any discrepancies should be justified.</p>
<b>Program Criteria</b>	<p>List the program criteria used and any relevant supporting documentation used.</p>	<p>The program criteria are the benchmarks (e.g., act, regulations, protocols, guidance documents, etc.) used to assess the greenhouse gas assertion.</p> <p>Any unique benchmarks such as calculations for specific emissions must be justified.</p> <p>Note, ISO 14064-3 or ISAE 3410 are verification standards, not program criteria.</p>

Verification Section	Offset Project Content	Further Comments and Description
<p><b>Final Verification including strategy, plan, procedures and sample plan</b></p>	<p>Verification strategy, verification plan, and sample plan.</p> <p>The actual verification procedures and sampling plan can be in an appendix</p>	<p>The final version of the verification plan needs to be included in the verification report. It is helpful to describe the approach (i.e., degree of controls reliance) used in designing the verification plan.</p> <p>Verification procedures need to be described in sufficient detail to understand how the verification was done, but do not go into detail that compromises verifier’s proprietary methods.</p> <p>Procedures need to connect to risks identified by the verifier for the greenhouse gas statement and attribute level for each material line item, including the nature, timing, and extent of the procedures.</p> <p>In particular, describe the procedures used to assess:</p> <ul style="list-style-type: none"> <li>• Project boundaries;</li> <li>• Methodologies, emission factors and conversions used;</li> <li>• Comparability with the baseline;</li> <li>• Conformance to the program criteria;</li> <li>• Integrity of the responsible party’s data management system and controls;</li> <li>• Greenhouse gas data and information, including the type of evidence collected, verification testing and crosschecking;</li> <li>• A comparison of the greenhouse gas assertion to the Alberta offset program requirements;</li> <li>• Details of site visit; and</li> <li>• Other relevant information.</li> </ul>
<p><b>Verification Schedule</b></p>	<p>Provide a list of verification activities and dates</p>	<p>A timeline of the verification process</p>
<p><b>Verification Findings</b></p>	<p>Discuss findings including:</p> <ul style="list-style-type: none"> <li>• Material and immaterial discrepancies identified;</li> <li>• Weaknesses in the responsible party’s data management system and controls;</li> <li>• Incompleteness in the greenhouse gas inventory;</li> <li>• Concerns with production values;</li> <li>• Changes in process flow diagram for the project;</li> <li>• Observed issues with the project boundary; and</li> <li>• A summary of findings including the SUD table</li> </ul>	<p>Typically, if there is a problem with the data, one or more controls have failed. Verifiers are encouraged to document data and control errors such that the responsible party has sufficient information to determine corrective actions to improve the data management system over time.</p> <p>Note, the verifier cannot provide solutions to observed issues as this would be considered consulting and could compromise the verifier’s independence.</p>

Verification Section	Offset Project Content	Further Comments and Description
<b>Statement of Verification</b>	The verifier’s opinion on the greenhouse gas assertion	The statement of verification is developed by the verifier and is appended to the verification report.
<b>Confirmations</b>	Documentation of confirmations done as part of the verification process, including inconsistencies observed.	Confirmations are used to check additional reporting information before it is submitted for serialization on the registry.
<b>Appendix</b>	Offset projects must include a signed Statement of Verification and Conflict of Interest checklist.  If not included in the body of the report, include the final verification plan, final sampling plan, and any relevant documentation such as methodologies, and calculations that provide clarity and assist AESRD.	

1  
2 Templates for verification report, statement of qualifications, and conflict of interest  
3 checklist are available in Appendix C. While the layout of the verification report may be  
4 adjusted to suit individual preferences, the content specified in the template must, in all  
5 cases, be included. Where the verifier feels a category is not applicable to the  
6 verification, sufficient rationale must be provided to explain why the information is not  
7 necessary to the verification.

8 **6.2.7 Statement of Verification**

9 The statement of verification is a statement on the legitimacy of the offset credits. The  
10 statement of verification must identify the offset project, the emission reductions being  
11 claimed (tonnes per vintage year), and the reporting period being verified.

12  
13 For the purposes of the Alberta offset system, verifiers cannot sign off on offset projects  
14 that have unresolved material discrepancies. Any material discrepancies identified during  
15 the audit must be resolved before the project and associated emissions  
16 reductions/removals can be serialized on the registry.

17 **6.2.8 Statement of Qualifications**

18 The statement of qualifications is an attestation signed by the designated signing  
19 authority stating the company hired to undertake the verification is sufficiently qualified  
20 to undertake the verification of the offset project. They are stating the company and  
21 verification team have the technical experience required to evaluate the correctness of the  
22 project.

23  
24 The statement of qualifications must be signed and submitted to the registry as part of the  
25 supporting documentation for the project.

26 **6.2.9 Conflict of Interest Checklist**

27 The verifier **must** be free from conflict of interest discussed in Section 6.1.4 above.  
28



1 The conflict of interest checklist must be completed and signed by the lead verifier **prior**  
2 to the verification and monitored throughout the engagement. If any conflicts are  
3 identified, the project developer or lead verifier should contact the AESRD to discuss the  
4 situation prior to undertaking the work.

### 5 **6.3 Subsequent Events**

6 Verifiers are not required to actively monitor the validity of their reports after issuance;  
7 however, where it is brought to the attention of the verifier that a previous statement is no  
8 longer accurate, the verifier must notify the project developer and AESRD to discuss  
9 further follow-up actions that may be required.

10  
11 If the project developer becomes aware of issues that cause a previously issue verification  
12 to invalid or inaccurate, the project developer must notify the verifier and AESRD to  
13 discuss follow-up actions that may be required

14  
15 Any changes or corrections to offset projects and previously issued verification reports  
16 may require new or updated project documentation be submitted to the registry. Registry  
17 fees will apply.

18  
19 Error corrections is discussed in Section 8.6.

## 7.0 Government Audit

AESRD audits approximately 15 per cent of offset credits submitted for compliance to confirm facility compliance under the *Specified Gas Emitters Regulation*. Project developers and regulated facilities that submitted the offset credits for compliance will be notified in writing if their project/offset credits have been selected for government audit.

AESRD also uses information collected during the audits to assess program performance and identify areas for improvement.

### 7.1 Project Selection

AESRD uses the following criteria to select projects for auditing:

- Coverage across offset project types;
- A range of project sizes and complexity;
- New and existing projects and/or project developers;
- Regulated facility submitting the offset credits for compliance;
- Verifiers used;
- Anomalies or issues encountered during the desktop review;
- Continuity between previous offset project audits; and
- Random selection.

Based on the criteria above, some offset projects may be audited more than once or be audited several times in succession to better understand how the projects are tracking emission reductions/removals over time.

### 7.2 Audit Process

AESRD's audit process uses a similar approach to third party verification with a few key differences.

AESRD issues a Request for Proposal to solicit bids from qualified audit companies. Auditors will be hired based on whether they meet the requirements of a third party auditor under section 18 of the *Specified Gas Emitters Regulation*; their audit experience; and their sector-specific expertise. Auditors hired by AESRD must meet the same independence requirements as verifiers. An audit team will not be assigned to an offset project where there is actual or perceived conflict of interest unless sufficient action can be taken to ensure independence.

Once the auditors have been assigned, AESRD will issue written notice to the project developer and regulated facility(s) that submitted the offset credits for compliance indicating the offset project has been selected for a supplemental government audit. The auditors will work directly with the project developer to set up an appropriate audit schedule and to request supplemental information needed to complete the audit.

1 Criteria for the audit are set by AERSD and the auditor. The verification plan is  
 2 submitted to AESRD and a copy is forwarded to the project developer prior to the site  
 3 visit.

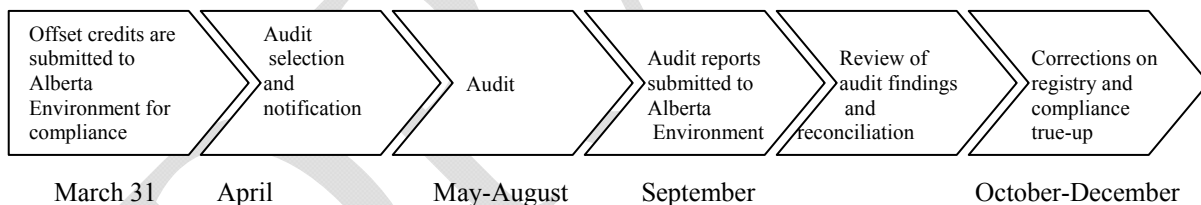
4  
 5 Auditors are required to perform a site visit. Project developers must enable the site visit.  
 6 Failure to allow access may result in a qualified audit finding, and could result in a  
 7 compliance investigation.

8  
 9 Auditors may schedule a close out meeting with the project developer to discuss key  
 10 findings and preliminary results. Note, offset projects selected for audit are considered  
 11 final and cannot be changed over the course of the audit. If issues are identified during  
 12 the audit, the project developer can provide additional information to clarify how the  
 13 project was implemented, but cannot make any changes to the project or associated  
 14 greenhouse gas assertion.

15  
 16 The final audit report is submitted directly to AESRD. AESRD will review the audit  
 17 findings and coordinate a follow-up meeting with the project developer to determine  
 18 what, if any, follow-up action is needed. AESRD will work with the project developer to  
 19 address unresolved issues. .

20  
 21 If no follow-up is required based on the audit findings, the project developer and  
 22 regulated facility(s) will receive written notice confirming the offset credits.

23  
 24 Figure 4: Audit Process



25  
 26  
 27  
 28  
 29  
 30  
 31  
 32  
 33 **7.3 Materiality for Government Audits**

34 Government audits use the same materiality threshold third party verifications (see  
 35 Section 6.1.6). Auditors must assess both quantitative and qualitative errors associated  
 36 with a project to reach a reasonable level of assurance on the emission reductions being  
 37 claimed. Auditors are required to identify all material and immaterial errors observed  
 38 during the offset project audit. These errors must be documented in the audit report.  
 39 AESRD will then work with the project developer to determine appropriate corrective  
 40 actions.

41 **7.4 Termination of an Audit**

42 If the auditor identifies significant issues such as incomplete records, missing records,  
 43 records in un-auditable formats, records that cannot be replicated such that the verifier

1 cannot conduct the verification, or significant reluctance on the part of the project  
 2 developer to provide records or access during the site visit, the auditor, in consultation  
 3 with AESRD, may issue notice to AESRD to terminate the audit.

5 Terminated audits are considered a failed audit. The project developer will adhere to the  
 6 error correction policy for material audit findings. If errors cannot be resolved, all offset  
 7 credits associated with the project will be revoked.

## 8 **7.5 Error Correction and Reconciliation**

### 9 **Immaterial Errors**

11 Immaterial errors are assessed on a case-by-case basis to understand their impact on the  
 12 overall project and determine appropriate corrective actions. Most immaterial errors are  
 13 corrected on a go-forward basis.

### 15 **Material Errors Resulting in an Understatement**

16 Where an audit identifies material errors that result  
 17 in an understatement of emission  
 18 reductions/removals for the project, the project  
 19 developer can correct the quantification  
 20 methodology on a go-forward basis. That is,  
 21 corrections will apply for the next credit generation  
 22 period.

*Understatements are corrected on a go-forward basis. Corrections cannot be made retroactively to claim additional tonnes from previous vintage years.*

### 24 **Material Errors Resulting in an Overstatement**

25 Material errors that result in an overstatement in credits may result in the project and all  
 26 associated offset credits being revoked from the registry. The registry will be up-dated to  
 27 reflect the change in status of the offset project.

29 Where material discrepancies are identified through  
 30 government audit, the following process will apply:

- 31 • AESRD will work with the project developer  
 32 to clarify the discrepancies.
- 33 • If corrective action is required, AESRD will  
 34 issue written notice to the project developer  
 35 indicating unresolved issues that require  
 36 follow-up.
- 37 • The registry will be notified and the project  
 38 will be flagged as “Project on hold pending  
 39 resolution of a government audit” on the  
 40 registry.
  - 41 ○ No further transactions will be  
 42 allowed on affected offset credits until issues identified during the audit  
 43 have been resolved. If the errors relate to the defensibility and credibility  
 44 of the data management system, related projects by the same project  
 45 developer may also be put on hold until issues can be resolved.

*Note, delays encountered during the audit may result in delays in audit results being made available to the project developer. This will result in a shorter window for corrections relative to the March 1 deadline. AESRD will not entertain project corrections for a previous compliance cycle past March 1 of the following year.*

- Facilities will be notified that discrepancies have been identified with the offset project and that further work has been initiated.
- The project developer will have until **March 1** of the following year to resolve issues and have the project pass an audit by an auditor appointed by AESRD.
  - If the discrepancies are resolved:
    - the unsupported credits will be revoked and must be updated accordingly on the registry.
    - Facilities will be required to pay alternate compliance into the Climate Change and Emissions Management Fund.
    - Corrective actions between the buyer and seller will be negotiated between the parties based on contractual obligations.
  - If the discrepancies are not resolved:
    - the project and **all** offset credits associated with the project will be revoked and must be updated accordingly on the registry.
    - the regulated facility will be required to come into compliance through payment into the Climate Change and Emissions Management Fund due on or before March 31 (payment may be included with the compliance submission).
    - The project developer will have 1 year (until March 1 of the following year) to make corrections and have the project pass a government audit where the auditor using an audit company assigned by AESRD.
      - If the project passes a government audit, revised offset credits can be serialized and registered on the registry.
      - If the project fails the government audit, no further credits will be accepted from that project. The project will be updated accordingly on the registry.

AESRD uses the following process to correct offset credits that have been submitted for compliance. All changes are reflected on the registry:

- Correction will be attributed to the serial number range in which the problem occurred. That is, credits will be retracted proportionally across vintage years to which the error applies.
- Where the offset credits are held by two or more parties, corrections will be assigned proportionally to all parties owning the offset credits.

Rectifying offset project corrections with facility compliance submissions will be done as follows:

- If unpurchased offset tonnes exist, correction may first be taken from unpurchased tonnes held by the project developer. In this situation, the project developer will be required to initiate transfer of ownership to the affected facilities, and request retirement of the credits required to replace revoked credits.
- If all credits from the project have been sold, AESRD will accept unretired offset credits to replace the revoked credits if it can be demonstrated that the replacement credits were verified, serialized and owned by the facility at the March 31 compliance deadline.

- If all credits have been retired and submitted for compliance, facilities will be required to make a payment into the Climate Change and Emissions Management Fund at the rate applicable at the compliance deadline.

Corrective actions between buyer and seller should be identified through contractual arrangements between the two parties and are outside the government regulatory system.

Companies that have submitted offset credits for compliance that are subsequently revoked will be required to make the difference through payment into the Climate change and Emissions Management Fund.

### **7.6 Third Party Contracting for re-Audits**

Projects that are required to make corrections based on government audit must undergo a re-audit by an audit team appointed by AESRD and paid for by the project developer. The audit team will, in most cases, be the same team that identified the initial errors. If alternate audit team is needed, AESRD will select the audit team consistent with its selection criteria.

The audit team and project developer will be required to enter into a third party agreement with the province.

### **7.7 Audit Methodology**

Verifiers are required to use the ISO 14064-3 verification standard and any other additional standards that the respective professions may require, which include for example,

- Standards for Assurance Engagements, Canadian Institute of Chartered Accountants (CICA) Handbook – Assurance Section 5025; and
- International Standard on Assurance Engagements (ISAE) 3410 - Assurance Engagements on Greenhouse Gas Statements

These standards ensure a consistent level of rigour in the verification process such that a peer verifier or auditor would come to the same conclusion as the verifier.

### **7.8 Level of Assurance**

AESRD requires audits be performed to a reasonable level of assurance.

### **7.9 Audit Report**

Auditors must produce an audit report using the same table of contents provided in Table 3 above. This report is submitted directly to AESRD. AESRD will share a copy of the audit report with the project developer and will schedule a meeting to review audit findings and determine any follow-up required. All audit follow-up occurs between AESRD and the project developer. The auditor is not included in the follow-up discussions or the audit close out meeting.

1  
2  
3  
4  
5  
6  
7  
8  
9

### **7.10 Confidentiality**

Auditors are contracted by AESRD. As an agent of the government, they are bound by Government of Alberta confidentiality requirements for data and must comply with all appropriate government regulations. Information collected for audit purposes is subject to section 16 of the *Specified Gas Emitters Regulation*. Further, government contracts explicitly reference confidentiality requirements under the *Freedom of Information and Protection of Privacy Act* which mandates how information submitted to the government is to be handled for confidentiality purposes.

10  
11  
12  
13

### **7.11 Continuous Improvement**

Additional information collected during the audit process is used to support program improvements and may be reflected in guidance changes, protocol reviews, or other as required and are part of a larger framework of on-going program reviews.

DRAFT

## 8.0 Alberta Emissions Offset Registry (Registry)

Alberta has established the Alberta Emissions Offset Registry (registry), through C3 (Climate Change Central) in partnership with CSA Group's GHG CleanProjects™ Registry, for Alberta-based offset projects. The registry is a public forum (i.e., website) that provides details on carbon offset projects including project related documentation and serialized offset credits that can be accessed and reviewed by interested parties. Business transactions between buyers and sellers are negotiated outside the registry; however, the registry is required to track changes in ownership of serialized tonnes through all intermediate parties to ensure a transparent, auditable record of owners is available to AESRD.

Unique serial numbers are assigned to each offset credit (tonne of carbon dioxide equivalent reduced or removed per offset project) and are used to track the offset credits as they move through the Alberta offset system from project developer through to retirement by a regulated facility or voluntary retirement. Offset credits and associated serial numbers that have been submitted for compliance must be retired on the registry in order to show that the credits have been removed from circulation.

Offset credits can only be counted once. If the credits are sold outside the Alberta market or if the project developer/current owner of the offset credits decides to list the credits on a different registry, the offset credits must be formally retired from the Alberta offset system and will no longer be available for use as a compliance option. Offset credits may also be voluntarily retired by entities other than regulated facilities and would need to submit a retirement request to the registry to have the credits removed from circulation.

If AESRD becomes aware of any instances of double listing, it will take action deemed appropriate including, but not limited to revoking all offset credits associated with the project.

While the registry performs a completeness check on all documents submitted to the registry, the registry does not certify or validate any offset credits posted on the site. The registry will query projects to check for issues of double counting within the registry and work with the project developer to correct identified deficiencies in documentation such as missing information or incomplete reports. Final acceptance of offset credits submitted for compliance by regulated facilities will be determined by AESRD.

Due to the inherent complexity of aggregated projects, aggregators are required to complete and submit a spatial locator template with detailed information on individual contracts by legal land descriptions that make up the larger serialized credit range. Information collected through the spatial locator template is used to check for double counting between aggregated projects of the same project type on the same legal land location within a vintage year.



## 8.1 Registry Credit Categories

As part of its commitment to full transparency, offset credits are tracked through various categories on the registry to ensure full disclosure of all credits serialized by a project.

**Table 6: Valid categories for offset credits.**

Category	Description
<b>Issued/Serialized Credits</b>	Credits that have been serialized and posted on the registry. These credits are available for purchase.
<b>Delisted (Transferred)</b>	Credits that have been sold. Credits may be sold multiple times. They will remain active in this category until there is a request to retire, voluntary retirement, or removal from the registry. Credits must be delisted to the current owner.
<b>Pending Retired</b>	Credits that have been submitted to AESRD for compliance and are no longer available for sale.
<b>Retired</b>	Retired credits have been confirmed as a compliance option by AESRD and have been retired and are no longer available for sale.
<b>Voluntary Retired</b>	Credits that have been retired from the registry, but that were not submitted for compliance. Voluntary retired credits are final and no longer available for sale.
<b>Removed<sup>7</sup></b>	Removed credits are a result of errors identified by the project developer. The project developer requests the tonnes be removed from circulation and are not available for sale.
<b>Revoked</b>	Revoked credits result from errors identified through government audit and are no longer available for sale.

## 8.2 Registry Project Status Categories

Table 7 below provides a list of status categories applicable to projects registered on the registry

<sup>7</sup> Removed and Revoked credits are tracked by the registry. Listings of removed and revoked credits are available on the GHG CleanProjects™, but are not currently available through the Alberta Emissions Offset Registry hosted by C3. This feature is planned for the 2012 registry up-dates.

1 **Table 7: Valid categories for offset projects.**

Project Status	Description
<b>Listed</b>	Brief, preliminary project information is posted on the registry. No official project documentation is available.
<b>Created</b>	The project plan and initial project information is posted on the registry. The project must be created in the same calendar year in which the project intends to start claiming offset credits.
<b>Registered</b>	The project report, verification report, and supporting documentation are posted on the registry and serialized emissions reductions are claimed as offset credits.
<b>Revoked</b>	The project has failed a government audit and been unable to make corrections to bring the project into compliance with program requirements. No further transactions can occur on any credits associated with this project.
<b>Removed</b>	The project and all or part of the unretired, serialized offset credits are removed from the registry.
<b>Ended</b>	Projects that have finished the allowable crediting period for the project. No new serialized credits can be added to an ended project. Unretired credits remain valid until they are retired or removed from the registry.

2

3 **8.3 Timing**

4 Offset projects may be registered and serialized at any time in the project cycle and are  
 5 not required to adhere to a calendar year unless required as part of the measurement  
 6 process stated in the protocol. The deadline for compliance with the *Specified Gas*  
 7 *Emitters Regulation* is March 31. Projects may be registered  
 8 and requests for serialization made up to March 31;  
 9 however, project developers should be aware the registry  
 10 has minimum time requirements for processing project  
 11 registration and serialization, transfers of ownership and  
 12 requests for retirement as outlined below. While the registry  
 13 does its best to process all requests before the March 31  
 14 deadline, AESRD and the registry cannot guarantee  
 15 processing and availability of offset credits for projects  
 16 submitted for registration after March 1 of the compliance  
 17 year.  
 18

Note, AESRD cannot accept any tonnes for compliance that have not been registered and serialized on the registry.

**8.4 Fees**

The registry is operated in partnership between C3 and the CSA Group’s GHG CleanProjects™ registry and is operated on a cost recovery basis. Fees provided in 6 and are subject to change periodically.

**Table 8: Transactions costs, document requirements and fees for the registry.**

Transaction	Documents Required	Fees	Approximate Processing Time (business days)
Project Listing	Preliminary project information	No Fee	Immediate listing
Project Creation	Complete Offset Project Plan GHG Project Application Form Schedule A, B, C (if necessary), D Validation Report (optional)	\$200	10
Project Registration/Serialization	GHG Project Application Form Schedule A, B, C (if necessary), D	\$200	10
	GHG Project Report, GHG Assertion, Statutory Declaration Spatial Locator Template if applicable Third Party Verification Report	\$250	
	Serialization Request (Schedule D)	\$0.10 per tonne	
Regular Project Updates or Add-ons	Schedule D – Update option If applicable, Updated project plan New GHG Project Report, New GHG Assertion, New Verification Report	\$250	10
Allocation to Multiple Owners at Serialization	Transfer Request form (Schedule D)	\$200 \$0.02 per tonne	10
Transfer of Ownership	Transfer Request form (Schedule D)	\$0.02 per tonne	10
Request for Retirement	Retirement Request form (Schedule D)	No Fee	10
Corrections to the Project	Schedule D outlining requested changes and where applicable the related: Updated Greenhouse Gas Assertion Correction Report New statement of verification and Verification Report if required	\$250	10

*Note: Registry processing times may take longer if submissions are incomplete or reporting requirements are not met.*

1 Payment for transactions must be received on receipt of the invoice from the registry.  
2 Late payments may result in projects being temporarily suspended until payment has  
3 been received.

## 4 **8.5 Transparency**

5 AESRD has adopted the ISO 14064 model for the Alberta offset system. Alberta requires  
6 full transparency on offset project documentation including the offset project plan, offset  
7 project report, greenhouse gas assertion, and verification report including the signed  
8 conflict of interest, signed statement of verification, and signed statement of  
9 qualifications.

10  
11 If a project is required to make corrections, the original documentation and the revised  
12 documentation, including rationale for the change, will be displayed on the registry.  
13 Removed and revoked serial ranges will also be displayed to maintain full transparency  
14 of the offset credits. This is consistent with the requirements for Clean Development  
15 Mechanism projects, which show the most current status of each serialized offset credit  
16 including the most current owner of that credit.

## 17 **8.6 Confidentiality**

18 Information collected by the registry and additional project information requested by  
19 AESRD and/or a government auditor is bound by Section 16 of the *Specified Gas*  
20 *Emitters Regulation* for the treatment of confidential information.

21  
22 **Information required to support the audit must be disclosed and made available to**  
23 **the auditor in a timely manner.** Failure to do so may result in an inability to complete a  
24 government audit. Projects that cannot be audited cannot be accepted as a compliance  
25 option under the *Regulation*.

26  
27 The spatial locator template for aggregated projects does contain confidential information  
28 and is used to reconcile serialized credit ranges with actual projects and associated  
29 reductions, and to assess double counting. Information collected on these forms is kept  
30 confidential and will only be disclosed to AESRD upon request by AESRD.

## 31 **8.7 Project Creation and Serialization**

32 **All documentation submitted to the registry is processed in the order it is received.**  
33 Every effort is made to initiate processing within 10 business days from submission.  
34 Additional time may be required if inconsistencies are identified during the completeness  
35 review conducted on the documentation. Partial or incomplete submissions will delay  
36 registry processing.

37  
38 Project developers are required to complete registry forms (i.e., GHG Project Application  
39 Form, Schedule A, B, C (if applicable), Schedule D - Notice of Account Instructions, and  
40 a Statutory Declaration). These documents are standardized forms that must accompany  
41 all registry transactions for new project creation and submissions. These forms are made  
42 available once a project is listed on the registry. Alternatively, copies can be downloaded

1 from the Help/FAQ section of the registry available at  
 2 <http://www.carbonoffsetsolutions.ca/aeor/index.php?p=help>. Submission of incorrect  
 3 forms will delay registry processing and project creation.

#### 4 **8.7.1 Process Checklist**

5 Below is a step-by-step walk through on how to list, create, and serialize greenhouse gas  
 6 emission reductions and/or removals on the registry. It is provided for guidance purposes  
 7 and may change periodically. Further details are listed within the Help/FAQ section of  
 8 the registry portal.  
 9

##### 10 **1. Create a Profile on the Registry**

11 The project developer must enter basic contact information required to create  
 12 a contact profile.

13 <http://carbonoffsetsolutions.climatechangecentral.com/offset-registry>  
 14

##### 15 **2. List a Project**

16 The project developer can add projects to his or her profile. New projects are  
 17 listed by going to the “My Profile” area and selecting “Add a Project”.

18  
 19 The project developer must enter basic project information and select “Add  
 20 Project”. The project information will be added to the registry database and be  
 21 listed as a project on the registry.  
 22

##### 23 **3. Create a Project: Crediting Start Date**

24 To complete the project creation process on the registry, the project developer  
 25 must select the project and download the project registration forms and  
 26 schedules listed below.  
 27

- 28 • **Project Application Form;**
- 29 • **Schedule A** - Acknowledgment of GHG CleanProjects™ Registry  
 30 Mandate;
- 31 • **Schedule B** - GHG CleanProjects™ Registry Services Agreement for  
 32 Alberta Emissions Offset Registry Projects;
- 33 • **Schedule C** - [if applicable] Designation of Authorized Project  
 34 Contact;
- 35 • **Schedule D** - Notice of Registry Account Instructions for Alberta  
 36 Emissions Offset Registry Projects; and
- 37 • **Offset Project Plan** – See section 4.10.1 for requirements for the  
 38 offset project plan.  
 39

40 Incomplete or missing information will delay the processing time for project  
 41 creation on the registry.  
 42

43 **Note, as of January 1, 2012, all projects being listed on the registry must create**  
 44 **the project including posting the offset project plan and monitoring plan on the**

1 registry in the same calendar year in which the project is going to start generating  
2 offset credits.

3  
4 **4. Request Registration and Serialization of the Greenhouse Gas Assertion**

5 The registry issues serial numbers for greenhouse gas emission reductions that  
6 have occurred and undergone *ex post* verification by a third party verifier meeting  
7 the requirements outlined in Section 6.0 above. Requests for serialization must  
8 include the following:

- 9
- 10 • **Schedule D** - Notice of Registry Account Instructions for Alberta
  - 11 Emissions Offset Registry Projects;
  - 12 • **Offset Project Report** – applicable to the reporting period and
  - 13 greenhouse gas emission reductions/removals being serialized;
  - 14 • **Greenhouse Gas Assertion** (Notice of Creation) for the claim including
  - 15 the emission reductions/removals expressed in tonnes of CO<sub>2</sub> e per vintage
  - 16 year being serialized;
  - 17 • **Verification Report** including an appended signed conflict of interest
  - 18 checklist, signed statement of qualifications, and a signed statement of
  - 19 verification;
  - 20 • **Statutory Declaration; and**
  - 21 • **If applicable, a Sub-project Tracking form.**

22  
23 **5. Request Transfer of Ownership and/or Retirement**

24 The registry tracks all changes of ownership and lists serial numbers to the current  
25 owner. This requirement for transparency of the current owner of the offset  
26 credits is consistent with requirements for other offset systems.

27  
28 Both transfers of ownership and retirement requests, including voluntary  
29 retirement of the offset credits, require the completion of a Schedule D Notice of  
30 Registry Account Instructions for Alberta Emissions Offset Registry Projects.

31  
32 Forms must be filled out correctly. The registry will complete the request  
33 including the Alberta offset credit quantities and relevant serial numbers  
34 ownership change to another entity, or initiation of retirement for specific serial  
35 numbers associated with each project as detailed in the form.

36  
37 Project developers will receive a confirmation letter from the registry confirming  
38 project creation/registration and/or the requests for serialization/credit  
39 transactions/credit retirement and an invoice for the transaction. Payment is due  
40 on receipt of the invoice. Failure to pay the invoice may result in delays in project  
41 registration, or projects being temporarily removed from the registry.

42 The registry serves as an official repository for offset project documentation. Facilities  
43 submitting offset credits for compliance should review the documents on the website and  
44 are required to submit any missing records to AESRD as part of their compliance  
45 submission. Facilities must also submit the confirmation of initiation of retirement issued

1 by the registry. This letter confirms that the facility has initiated retirement of the offset  
2 credits being submitted for compliance.

3  
4 This process of housing records on the registry does not replace a company's due  
5 diligence during offset credit transactions. Facilities should continue to do their own due  
6 diligence on all offset credits being purchased and should retain appropriate records for  
7 the projects.

**Before you hit send:**

The registry does a completeness review of all documentation being submitted. It can greatly assist registry staff and the serialization process if information is complete prior to submission including:

- Consistent project name on all documentation and on the registry;
- Use most current templates;
- Complete all sections of the template, including justifications for any exclusions;
- Provide project specific information that explains how the project meets the requirements of the protocol (do not cut and past the protocol);
- Ensure all documents have been signed;
- Provide complete project location information, including legal land locations;
- Clearly state the protocol being used, including the version and date;
- Clearly state the credit period, and for the project report, the reporting period being covered; and
- Ensure emissions reductions stated in the project report match verified emission reductions signed off by the verifier and match emissions reductions stated on the GHG Assertion.

8  
9  
10 **8.8 Voluntary Retirement of Offset Credits**

11 Voluntary retirement of offset credits from the registry is permissible. Voluntary  
12 retirements must complete a Schedule D – Request for Retirement. Credits will be  
13 delisted to retired, and will no longer be available for compliance.

14  
15 Voluntary retirements are considered permanent. No further transactions are permitted on  
16 these credits.

17  
18 If errors are identified in an offset project, AESRD's error correction policy will apply,  
19 and may cause voluntarily retired credits to be removed or revoked from the registry.  
20 Any true between the project developer and company that voluntarily retired the credits  
21 will be based on contractual obligations between the buyer and seller.

## 8.9 Offset Credit Error Correction

AESRD recognizes that situations may occur where corrections need to be made to the serialized tonnes posted on the registry. The two primary reasons for making corrections to projects listed on the registry are:

1. The project developer and/or verifier become aware of an error (removed); or
2. An error is detected during the government audit (revoked).

### **Errors Resulting in an Understatement**

Errors resulting in an understatement in emissions reductions/removals can be corrected on a go-forward basis in the next reporting period. Project developers must note the error in the offset project report, including the corrective actions taken.

### **Errors Resulting in an Overstatement**

Invalid tonnes **must** be retracted from the registry and are recorded as either removed or revoked.

Voluntarily retracted credits will be listed as **Removed**. For removed credits, the registry will require a notice of retraction, corrected greenhouse gas assertion, and a letter from the verifier stating the changes that were made, including a new statement of verification for the revised greenhouse gas assertion.

Corrections required following a government audit will be listed as **Revoked**. Revoked credits will be done at the request of AESRD. Project developers may resubmit revoked credits as per the requirements stated in Section 7.4 above.

For transparency purposes, serial numbers belonging to removed and revoked credits will be appropriately displayed in the removed or revoked sections on the registry. Serial numbers listed in these categories are **not** available for sale.



1 GLOSSARY OF TERMS

2

<b>Additionality</b>	An action that results in greenhouse gas emission reductions that are beyond business as usual and supplemental to all regulatory requirements.
<b>Alberta Emissions Offset Registry</b>	A web-based platform that houses and track offset projects and offset credit information for the province of Alberta.
<b>Aggregated Projects</b>	A collection of small projects using same quantification methodology that have been bundled to create a larger volume project for marketing, verification, and registration
<b>Aggregator</b>	An entity acting as the project developer of aggregated projects.
<b>Baseline</b>	A reference case against which the performance of the project is measured.
<b>Broker</b>	An entity that functions as an intermediary between two or more parties in offset credit transactions.
<b>Business as Usual</b>	Also known as industry common practice. Is a projection of normal operating conditions that would have occurred in the absence of incentives or regulatory changes.
<b>Carbon Dioxide Equivalent (CO<sub>2</sub>e)</b>	Is the 100-year global warming potential average of a unit of greenhouse gas (e.g. methane) compared to an equivalent unit of carbon dioxide (reference gas).
<b>Climate Change and Emissions Management Act</b>	Legislation in Alberta passed in 2002 allowing Alberta Environment to manage greenhouse gas emissions in the province.
<b>Conflict of Interest Form</b>	A signed document identifying any real or perceived conflict of interest that may compromise the impartiality of the Third party verifier.
<b>Credit Duration Period</b>	The duration of time that the project is eligible to receive offset credits.
<b>Eligibility Criterion</b>	Are minimum requirements an offset project

	<p>must meet to be eligible under the Alberta Offset System.</p> <ul style="list-style-type: none"> <li>• Incremental – beyond business as usual;</li> <li>• No Leakage – results in an actual reduction not shifting emissions upstream or downstream of the project;</li> <li>• Quantifiable – be able to accurately measure and monitor emissions reductions/removals using replicable techniques;</li> <li>• Real – results in a net reduction in greenhouse gas emissions; and</li> <li>• Unique – only counted once for compliance.</li> </ul>
<b>Emission Factor</b>	<p>Is a representative value that can be used to estimate the rate or quantity of greenhouse gas emissions released to the atmosphere or removed through sequestration processes.</p>
<b>Emission Reduction</b>	<p>Occurs when emissions released into the atmosphere by a source are decreased or eliminated.</p>
<b>Emission Removal</b>	<p>Occurs when CO<sub>2</sub> or CO<sub>2</sub>e is removed from the atmosphere through sequestration.</p>
<b>Global Warming Potential (GWP)</b>	<p>Measures a greenhouse gas’s relative warming effect on the Earth’s atmosphere compared with carbon dioxide expressed as a 100-year average.</p>
<b>Greenhouse Gas Assertion</b>	<p>A document that identifies the greenhouse gas emission reductions/removals and offset credits being claimed by the project over a defined period of time.</p>
<b>Level of Assurance</b>	<p>Identifies the amount of work required to reach a stated level of comfort with an offset project.</p>
<b>Offset credit</b>	<p>Is a tradable credit issued per tonne of greenhouse gas emissions reductions/removals expressed as CO<sub>2</sub> e.</p>
<b>Offset Project</b>	<p>An activity implemented by a Project Developer in accordance with a government approved protocol that results in greenhouse gas emission reductions or removals.</p>
<b>Offset Project Plan</b>	<p>Is a report prepared by the Project Developer</p>

	describing how the offset project will meet the criteria outlined in the quantification protocol.
<b>Offset Project Report</b>	Is a report prepared by the Project Developer prior to third party verification that describes how the project was implemented relative to the Offset Project Plan and appropriate quantification protocol.
<b>Project Developer</b>	A person who implements an offset project in accordance with a government-approved protocol.
<b>Project Start Date</b>	Is an <u>eligibility criterion</u> referring to the date when the greenhouse gases are initially reduced or removed by the offset project.
<b>QA/QC</b>	Refers to Quality Assurance and Quality Controls associated with an offset project and data management system.
<b>Quantification Protocol</b>	Is a government-approved methodology that outlines appropriate baseline conditions, eligible sources and sinks, and emission reduction calculations for a specific emission reduction activity.
<b>Registration</b>	The process of registering a project on the Alberta Emissions Offset Registry
<b>Regulated Facility</b>	Is a facility located in Alberta that emits over 100,000 tonnes CO <sub>2</sub> e per year. Offset credits are one of three market-based compliance options available to regulated facilities. Facilities may also purchase Climate Change and Emissions Management Fund Credits (fund credits), or use Emission Performance Credits (EPC), which are emission reductions generated at regulated facilities that have reduced their emissions below their net emissions intensity limit.
<b>Reversal</b>	Is a release of carbon sequestered or stored in a reservoir back to the atmosphere.
<b>Sequestration</b>	The process of storing carbon in a reservoir to prevent its release into the atmosphere.

<b>Serial Number</b>	Is a unique number assigned to each tonne of greenhouse gas emissions reductions generated by an offset project.
<b>Sink</b>	Any process, activity or mechanism that removes greenhouse gas from the atmosphere.
<b>Source</b>	Any process or activity that releases greenhouse gases into the atmosphere.
<b>Stackable</b>	Protocols are written such that two or more protocols can be implemented as part of one large project.
<b><i>Specified Gas Emitters Regulation</i></b>	Is the regulation passed under the Climate Change and Emissions Management Act that enables the Alberta Offset System.
<b>Validation</b>	An optional process that is used to assess a project condition including quantification methodologies <b>before</b> the project is implemented
<b>Verifiable</b>	Is an eligibility criterion requiring that a third party verifier be able to confirm that the reductions or removals have been achieved as claimed.
<b>Verification</b>	Is an independent third party review of a project to assess project operating conditions against the baseline conditions to confirm the offset credits being claimed in the greenhouse gas assertion.
<b>Statement of Qualifications</b>	Is a signed statement attesting to the qualifications of the of the Third party verifier to undertake the verification.
<b>Statement of Verification</b>	Is a document prepared by the third party verifier expressing their opinion the veracity of the greenhouse gas emissions reductions being claimed by the offset project.
<b>Verifier</b>	Is a person or organization that meets the requirements of a third party auditor stated in section 18 of the <i>Specified Gas Emitters Regulation</i> .

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**Appendix A: Offset Project Plan Template**

[REQUIRES UP-DATING]



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***Alberta Offset System  
Offset Project Plan  
(Version 2, February 2012)***

1

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The following elements must be contained in the **Offset Project Plan**.

- 1. Project Scope and Site Description**
- 2. Inventory of Sources and Sinks**
- 3. Identification of Baseline and Project**
- 4. Quantification Plan**
- 5. Monitoring Plan**
- 6. Data Management System and Records**

DRAFT

## 1 Introduction

2 This document provides a general guidance on minimum content requirements for an  
3 offset project plan being submitted to the Alberta Emissions Offset Registry. Project  
4 developers are required to have some familiarity with ISO 14064-2 principles outlined  
5 below and must be familiar with the Alberta offset system.  
6

7 Additional information on Alberta offset system requirements is available in the  
8 Technical Guidance for Offset Project developers available on AESRD's website at  
9 <http://environment.alberta.ca/02275.html> . Project developers and verifiers are  
10 responsible to ensure they are using the most recent versions of documents as released by  
11 Alberta Environment.  
12

## 13 ISO 14064-2 Principles

14 **Relevance** Requires relevant greenhouse gas sources and sinks, data and supporting  
15 information, project records, and calculation methodologies used to  
16 support the baseline and project condition be discussed in context of the  
17 Alberta offset system program requirements and project implementation.  
18

19 **Completeness** Requires the project developer to include all relevant greenhouse gas  
20 emissions and reductions/removals as indicated in the approved  
21 quantification protocol.  
22

23 **Consistency** Enables a meaningful comparison of greenhouse gas-related information.  
24 Project developers must use calculation methodologies consistent with the  
25 approved protocol requirements and that are accurate and appropriate for  
26 the project. Consistent methodology must be used to calculate the project  
27 baseline and annual emission reductions to ensure offset credits represent  
28 real emission reductions. Changes in methodology may require a  
29 restatement of the project baseline.  
30

31 **Accuracy** Project developers must reduce bias and uncertainties as much as practical  
32 and must use the most appropriate quantification methodologies available  
33 as discussed in the approved protocol. See Section 4.7 of the Technical  
34 Guidance for Offset Project Developers for more information.  
35

36 **Transparency** Requires that sufficient and appropriate information be disclosed to allow  
37 intended user (buyers and AESRD) to make decisions on the project with  
38 reasonable confidence.  
39

40 **Conservativeness** Use conservative assumptions, values and procedures to ensure that  
41 greenhouse gas emission reductions or removal enhancements are not  
42 over-estimated. See Section 4.7 of the Technical Guidance for Offset  
43 Project Developers for more information.  
44

## 45 Alberta Offset System Eligibility Criteria

46 In order to be eligible in the Alberta offset system, the project must:

- 1 • Occur in Alberta;
- 2 • Result from actions not otherwise required by law and be beyond business as
- 3 usual and sector common practices;
- 4 • Result from actions taken on or after January 1, 2002;
- 5 • Occur on or after January 1, 2002;
- 6 • Be real, demonstrable, quantifiable, and verifiable;
- 7 • Have clearly established ownership; and
- 8 • Be counted once for compliance purposes.

9  
10 In addition to the requirements stated above, Alberta also requires that offset projects:

- 11 • Be implemented according to a Government of Alberta-approved
- 12 quantification protocol;
- 13 • Be third party verified by a qualified person(s) meeting the requirements for a
- 14 third party auditor under section 18 of the *Specified Gas Emitters Regulation*;
- 15 and,
- 16 • Be registered on the Alberta Emissions Offset Registry.

17  
18 These are minimum criteria. Meeting these criteria does not guarantee that an offset will  
19 be eligible for compliance use by AESRD.

## 20 21 **General Requirements**

22 It is the project developer's responsibility to ensure all project documentation meets  
23 program requirements as outlined in the *Specified Gas Emitters Regulation*, the Technical  
24 Guidance for Offset Project Developers, and the approved quantification protocol.

25  
26 Requirements for the Offset Project Plan are discussed in detail in Section 4.10.1 of the  
27 Technical Guidance for Offset Project Developers.

28  
29 This document is provided as a guide to assist project developers in completing the Offset  
30 Project Plan, which is submitted to the Alberta Emissions Offset Registry as part of the  
31 required project documentation. This guide is intended to improve completeness and  
32 consistency of offset project to the registry. Project developers can modify or adjust the  
33 format to meet their needs. Please note, however, that **all sections identified in this**  
34 **template must be completed. Where a project developer feels a section is not**  
35 **relevant to their project, they must provide justification for the exclusion.**

### 36 37 **a) Alberta Emissions Offset Registry**

38 The Alberta Emissions Offset Registry is operated as a partnership between C3 (Climate  
39 Change Central) and the CSA GHG CleanProjects™ Registry. The GHG  
40 CleanProjects™ Registry is an independent, third-party registry of greenhouse gas  
41 emission reductions and removals projects.

42 Registration requirements and processes for registering a project on the Alberta  
43 Emissions Offset Registry portal at

44 <http://carbonoffsetsolutions.climatechangecentral.com/offset-registry>.

45

## b) Project Registration and Serialization

The following documents **must** be submitted to the registry, along with the necessary registration forms and schedules. Once the registry has completed the review, an invoice will be sent to the project developer along with payment instructions. Payment is due on receipt of the invoice. Late payments may result in projects being temporarily suspended until payment has been received.. All documentation submitted to the registry is subject to a processing time of up to 10 business days. Additional time may be required if issues are identified during the completeness review including incomplete document submissions and/or inconsistencies in project documentation. **Partial or incomplete submissions will delay registry processing.**

### *Project Creation*

- Creation of a project developer account
- Signed offset project plan
- Validation report (if applicable)

### *Serialization*

- Signed greenhouse gas assertion
- Signed offset project report (with appended offset project plan)
- Spatial locator template (if applicable)
- Verification report including a signed statement of verification, a signed statement of qualifications, and a signed conflict of interest
- Signed Statutory Declaration

Registry forms are available from the registry at <http://www.carbonoffsetsolutions.ca/aeor/index.php?p=help>. Electronic copies are provided once a project is created on the registry.

Once all documentation has been submitted, assessed for completeness, and appropriate fees are assessed, the Alberta Emissions Offset Registry will issue an invoice<sup>8</sup> for the transaction, and notification confirming project registration and/or the requests for serialization/credit transactions/credit retirement.

AESRD reviews all offset projects submitted to AESRD for compliance purposes and may request additional information if needed.

AESRD audits a portion of offset projects submitted for compliance. More information on the audit process is available in Section 7 of the *Technical Guidance for Offset Project Developers*.

---

<sup>8</sup> Payment is due on receipt of the invoice. Late payments may result in projects being temporarily suspended until payment has been received.

1

## 2 *Offset Project Plan for Enter project title*

3

### 4 **1) Project Scope and Site Description**

Project Title:	Enter Project Title (as will be registered)
Project Purpose and Objective(s):	Provide the purpose and objective(s) of the project. Explains the function of the project and all of the relevant assumptions, and should clearly identify which activities are included/excluded for the purposes of quantifying of greenhouse gas reductions.
Project Start Date:	Enter the project start date. This must include any pilot or testing phases associated with the project. Note, projects must have a start date on or after January 1, 2002 to be eligible in the Alberta offset system.
Credit Start Date:	Enter the start date for offset credit generation <sup>9</sup>
Credit Duration Period:	Enter credit duration period, including the credit start date and the credit end date (must be specific dates). <sup>10</sup>
Expected Lifetime of the Project:	State the expected lifetime of the project, including expected lifetime of any technology installations. Note, the project life is different from the credit duration period.
Estimated Emission Reductions/Removals:	Provide an estimate of total project and annual emission reductions/removals expected from this project.
Applicable Quantification Protocol(s):	State the relevant government approved quantification protocol(s) being applied to this project. Include the year and version of the protocol(s) used.
Protocol(s) Justification:	Describe how the selected quantification protocol(s) is/are applicable to the project and how the project generating emission reductions are additional to what otherwise would have occurred in the absence of the project.

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<sup>9</sup>Offset projects are eligible to generate credits for 8-years with a possible 5-year extension from project creation (registration) on the Alberta Emissions Offset Registry. Project creation, including posting eth offset project plan, must occur in the same calendar year in which the project developer wishes to start claiming offset credits. More information is available in Section 3.2.5 of the Technical Guidance for Offset Project Developers.

<sup>10</sup>All projects in the Alberta offset system excepting conservation cropping projects and afforestation projects are subject to an 8-year with possible 5-year extension. For more information, see Section 3.2.6 of the Technical Guidance for Offset Project Developers.

Other Environmental Attributes:	List any other environmental attributes/credits/benefits this project is generating / eligible for (such as Renewable Energy Certificates (RECs)).
Legal Land Description of the Project and/or Other Unique Site Descriptions:	<p>Include the latitude and longitude for each unique location or installation<sup>11</sup></p> <p>Latitude: [redacted]</p> <p>Longitude : [redacted]</p> <p>Provide additional details to assist in identifying the unique location. Note, projects must be located in Alberta and result in reductions and/or removals of provincial greenhouse gas emissions.</p> <p>Describe the project boundary that may extend beyond the physical or geographical boundaries of the project’s infrastructure, or may be a smaller portion of a larger physical site boundary.</p>
Ownership:	Provide details on ownership of the project. Where more than one party has a legal right to the offset credits generated from the project, it is the project developer’s responsibility to ensure he or she has obtained legal right to transact on the offset credits.
Reporting and Verification Details:	<p>Provide details on frequency of reporting and verification. For example, will the project be going to annual or biannual verification. What other metrics (e.g.: minimum tonnes CO<sub>2</sub>e reduced) are needed to trigger a verification?</p> <p>Include details on any validation or assessment processes that have been completed on this project.</p>
Project Activity:	State how the project activity meets all the eligibility criteria for the Alberta offset system.
Project Registration:	List any other systems or greenhouse gas programs this project is either registered in, or attempted register in. State if project will only be registered in the Alberta offset system.
Other:	Provide any additional information required to support the offset project.

<sup>11</sup> Aggregated projects must complete a spatial locator template with detailed location information as part of the registration package for the project. This information is kept confidential and is not posted on the registry and may only be disclosed to AESRD upon request. Templates can be requested by emailing [AEOR@climatechangecentral.com](mailto:AEOR@climatechangecentral.com).

1 **2) Contact Information**

<p>Project Developer Contact Information</p>	<p>[Enter project developer company name.]</p> <p>[Enter Main Contact Name for the project developer company:] [Enter title of contact:]</p> <p>Enter project developer street address.]:</p> <p>[Enter city.] [Enter Province/State:]</p> <p>[Enter postal code.] [Enter country.]</p> <p>[Enter telephone with area code.]:</p> <p>[Enter fax with area code.]</p> <p>[Enter website address.]</p> <p>[Enter email address of contact for the project developer.]</p>	<p>Enter the names of the other contacts for the project developer.</p> <p>[Enter Name and Title of contact:]</p> <p>[Enter email address of contact for the project developer.]</p> <p>[Enter Name and Title of contact:]</p> <p>[Enter email address of contact for the project developer.]</p>
<p>Authorized Project Contact</p> <p>(This is a contact that has been given the authority to act on behalf of the project developer.)</p>	<p>[Enter Authorized Project Contact company name.]</p> <p>[Enter Contact Name(s) for the authorized project contact company:] [Enter title of contact:]</p> <p>Enter authorized project contact street address.]:</p> <p>[Enter city.] [Enter Province/State:]</p> <p>[Enter postal code.] [Enter country.]</p> <p>[Enter telephone with area code.]:</p> <p>[Enter fax with area code.]</p> <p>[Enter website address.]</p> <p>[Enter email address of contact for the authorized project contact.]</p>	

### 3) Other Project Information

#### *Conditions prior to project initiation*

Provide details such as, but not limited to: what was there before project; and any pre-project implementation and conditions, including when the installation built, and the project lifetime expectancy.

#### *Description of how the project will achieve greenhouse gas emission reductions/removals*

Describe how the project will result in greenhouse gas emission reductions and/or removals. Note: greenhouse gas reductions/removals requires a comparison of greenhouse gas emissions under the project condition to the greenhouse gas emissions under the baseline condition. The project and baseline must be functionally. See Section 4.6 of the Technical Guidance for Offset Project Developers for more information.

#### *Project Eligibility*

The project developer must explain how the project meets the requirements of the quantification protocol(s) applicable to the project.

Any flexibility mechanisms used or pre-approved methodology changes must be noted. Justification must be provided for elements in the protocol that are not applicable to the project.

#### *Project technologies, products, services and the expected level of activity*

Provide an explanation of the project specific technologies, products, and services and the justification for any variances and differences.

#### *Identification of risks*

Identify and provide details on what risk factors are unique to the project that are not outlined in the protocol and how they will be dealt with in the project.

Discuss any risks and adverse impacts associated with this project and mitigating actions being taken.

Include a note on any related regulatory requirements that affect the project.

Explain which of the protocol risk elements are pertinent and why.

Identify other project related risk elements such as market forces continuing over the credit duration period.

If there are no risks, it is necessary to state that there are no risks and why.



1

## 2 **4) Inventory of sources and sinks**

3 Projects must quantify all project sources and sinks consistent with the approved  
4 quantification protocol.

5

6 Provide the details of the project specific sources and sinks. This should include details  
7 such as process diagrams identifying controlled, related and affected for the baseline and  
8 project scenarios, assumptions, meters and control points, and other relevant project  
9 information.

10

11 If flexibility mechanisms are being included, or if any changes are made such as the  
12 exclusion of a source or sink that is not relevant to the specific project, this information  
13 must be identified and sufficient justification must be provided.

14

## 15 **5) Identification of the Baseline and Project**

16 Describe project baseline conditions and how it meets the baseline condition  
17 requirements stated in the approved protocol. If the protocol allows for several baseline  
18 scenarios, provide justification for the scenario selected for the project.

19 Describe the project condition, including an assessment of functional equivalence  
20 (consistency) with the baseline condition.

21 The baseline is a reasonable representation of conditions that would likely have occurred  
22 in the absence of the project. The baseline represents the 'business as usual' and the  
23 project represents the change from this practice.

24 The baseline and project condition must be functionally equivalent. That is, the baseline  
25 and project condition must provide the same level of output and quality of product.  
26 Justification must be provided for any changes in project out put between the baseline  
27 and project condition.

28

## 29 **6) Quantification Plan**

30

31 The **quantification plan** describes the methodology being used to quantifying  
32 greenhouse gas emissions associated with the specific project. The Quantification Plan  
33 includes:

- 34 • A description of the key (included) sources and sinks to be quantified;
- 35 • A full list of parameters required for quantification indicating which  
36 parameters will be measured and which will be estimated;
- 37 • A description of the measurement and estimation procedures for each  
38 parameter;
- 39 • Supporting information to justify the measurement and/or estimation  
40 procedures (i.e. references for emissions factors, measurement equipment  
41 specifications);

- An understanding and identification of records and project information available to support greenhouse gas emissions quantification;
- Sample calculations, conservativeness analysis and other information needed to support greenhouse gas emissions quantification. This must include justification for any assumptions being made. Proper referencing and footnoting is required; and
- Quantification for any flexibility mechanisms being used.

Alberta Environment has not set a negligible emissions threshold for offset projects. Project emissions must be assessed according to the approved quantification protocol.

***Estimate of total greenhouse gas emission reductions/removals enhancements attributable for the project***

The quantification must include each relevant greenhouse gas species applicable to the project.

**7) Monitoring Plan**

The **monitoring plan** explains how the measured parameters required for calculating the emission reduction or removals for the project will be monitored and input into the data management system. It should include specifications for monitoring equipment to be used, locations of sampling points, frequency of sampling events, data collection methodology, and other details needed to ensure the project is implemented according to the requirements stated in the approved quantification protocol.

Below is an example monitoring plan:

Source/ sink identifier and name	B3 – Natural Gas Usage
Data parameter	Volume of capture gas vented
Estimation, modeling, measurement or calculation approaches	Monitored
Data unit	m <sup>3</sup>
Sources/Origin	Direct metering of gas vented. Converted to STP condition
Monitoring frequency	Continuous
Description and justification of monitoring method	This is the most accurate method of measuring this parameter assuming that staff are correctly trained and equipment is correctly maintained
Uncertainty	
Provide the details for any deviations from protocol(s) including the justification and rationale.	

1 **8) Data Management System and Records**

2 Describe the data management system, including source documents, controls, and  
3 security applicable to the offset project used to ensure the integrity, completeness,  
4 accuracy, and validity of the data..

5  
6 Provide a simplified data flow chart that identifies manual and automated data transfers,  
7 source data, key controls, etc. applicable to the project.

8  
9 Project developers must ensure they have implemented appropriate quality  
10 control/quality assurance (QA/QC) procedures. These must be documented in a **QA/QC**  
11 **plan** included in this section of the offset project plan.

12  
13 Source data and project records, including records storage, back-up, and retention plans  
14 must be described.

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1 **Project Developer Signature**

2

I am a duly authorized corporate officer of the project developer mentioned above and have personally examined and am familiar with the information submitted in this offset project plan including the accompanying greenhouse gas assertion on which it is based. Based upon reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, I hereby warrant that the submitted information is true, accurate and complete to the best of my knowledge and belief, and that all matters affecting the validity of the emission reduction claim or the protocol(s) upon which it is based have been fully disclosed. I understand that any false statement made in the submitted information may result in de-registration of credits and may be punishable as a criminal offence in accordance with provincial or federal statutes.

The project developer has executed this offset project plan as of the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Project Title: Enter name of project

Signature: \_\_\_\_\_

Date: Enter date  
Name: Enter Name  
Title: Enter title

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**Appendix B: Offset Project Report Template**

**[REQUIRES UP-DATING]**

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***Alberta Offset System  
Offset Project Report  
(Version 2, February 2012)***

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# 1 *Introduction*

2 The offset project report differs from the offset project plan in that it is completed prior to  
3 verification and describes how the project performed over the reporting period. It  
4 describes how the project was implemented relative to the project plan, quantification  
5 protocol, and program requirements. It identifies any changes that occurred such as  
6 modifications in calculation procedures, data collection and/or record keeping  
7 procedures, emissions factors or other variables, weather anomalies, reversals that  
8 occurred, and any other changes that occurred during the reporting period.  
9

10 The offset project report must identify actual emission reductions, by greenhouse gas  
11 species expressed in tonnes CO<sub>2</sub>e per vintage year achieved by the project.  
12

13 The offset project report must include:

- 14 • The time period covered by the offset project report (the reporting period);
- 15 • Project details and information demonstrating the activities and procedures  
16 outlined in the offset project plan and approved quantification protocol were  
17 followed. Any deviations or anomalies must be noted;
- 18 • Final sample calculations used to calculate the greenhouse gas reductions and/or  
19 removals (in tonnes CO<sub>2</sub> e);
- 20 • Reduction/removals totals per greenhouse gas species applicable to project;
- 21 • The greenhouse gas assertion containing the calculated number of offset credits in  
22 tonnes CO<sub>2</sub>e per year achieved; and
- 23 • Signature of the offset project developer or designated project signing authority.  
24

25 All sections included in this template must be completed. **If a section is not relevant to a**  
26 **specific project, justification must be provided.**  
27

## 28 **Alberta Emissions Offset Registry**

29 The Alberta Emissions Offset Registry is operated as a partnership between C-3 (Climate  
30 Change Central) and the CSA GHG CleanProjects™ Registry. The GHG  
31 CleanProjects™ Registry is an independent, third-party registry of greenhouse gas  
32 emission reductions and removals projects.  
33

34 Registration requirements and processes for registering a project on the Alberta  
35 Emissions Offset Registry portal at  
36 <http://carbonoffsetsolutions.climatechangecentral.com/offset-registry>.  
37

## 38 **Project Serialization**

39 The following documents **must** be submitted to the registry, along with the necessary  
40 registration forms, schedules, and payment. All documentation submitted to the registry  
41 is subject to a processing time of up to 10 business days. Additional time may be required  
42 if issues are identified during the completeness review including incomplete document  
43 submissions and/or inconsistencies in project documentation. **Partial or incomplete**  
44 **submissions will delay registry processing.**  
45

1 **Project Creation**

- 2  Creation of a project developer account  
3  Signed offset project plan  
4  Validation report (if applicable)  
5

6 **Serialization**

- 7  Signed greenhouse gas assertion  
8  Signed offset project report  
9  Spatial locator template (if applicable)  
10  Verification report including a signed statement of verification, a signed statement  
11 of qualifications, and a signed conflict of interest  
12  Signed Statutory Declaration  
13

14 Registry forms are available from the registry at  
15 <http://www.carbonoffsetsolutions.ca/aeor/index.php?p=help>. Electronic copies are  
16 provided once a project is created on the registry.  
17

18 Once all documentation has been submitted, assessed for completeness, and appropriate  
19 fees are assessed, the Alberta Emissions Offset Registry will issue an invoice<sup>12</sup> for the  
20 transaction, and notification confirming project registration and/or the requests for  
21 serialization/credit transactions/credit retirement.  
22

23 AESRD reviews all offset projects submitted to AESRD for compliance purposes and  
24 may request additional information if needed.  
25

26 AESRD audits a portion of offset projects submitted for compliance. More information  
27 on the audit process is available in Section 7 of the Technical Guidance for Offset Project  
28 Developers.  
29

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<sup>12</sup> An invoice will be sent to the project developer along with payment details. Payment is due on receipt of the invoice. Late payments may result in projects being temporarily suspended until payment has been received.

# Offset Project Report for Enter project title

## 1) Project Document Information

Enter title of offset project report

Enter the date and reporting period covered in the report

## 2) Project Scope and Project Description

Information in this section should be consistent with information included in the offset project plan. Justification must be provided for any changes.

Project Title:

Enter Project Title.

Project Purpose and Objective(s):

Provide the purpose and objective(s) of the project. Explains the function of the project and all of the relevant assumptions, and should clearly identify which activities are included/excluded for the purposes of quantifying of greenhouse gas reductions.

Project Start Date:

Enter the project start date. This must include any pilot or testing phases associated with the project. Note, projects must have a start date on or after January 1, 2002 to be eligible in the Alberta offset system.

Credit Start Date:

Enter the start date for offset credit generation<sup>13</sup>

Credit Duration Period:

Enter credit duration period, including the credit start date and the credit end date (must be specific dates).<sup>14</sup>

Reporting Period:

State the time period covered by this report.

Expected Lifetime of the Project:

State the expected lifetime of the project, including expected lifetime of any technology installations. Note, the project life is different from the credit duration period Enter the start date for

<sup>13</sup>Offset projects are eligible to generate credits for 8-years with a possible 5-year extension from project creation (registration) on the Alberta Emissions Offset Registry. Project creation, including posting the offset project plan, must occur in the same calendar year in which the project developer wishes to start claiming offset credits. More information is available in Section 3.2.5 of the Technical Guidance for Offset Project Developers.

<sup>14</sup>All projects in the Alberta offset system excepting conservation cropping projects and afforestation projects are subject to an 8-year with possible 5-year extension. For more information, see Section 3.2.6 of the Technical Guidance for Offset Project Developers.

	offset credit generation <sup>15</sup> .
Actual Emission Reductions /Removals Achieved:	Provide total emission reductions/removals per vintage year generated from this project.
Applicable Quantification Protocol(s):	State the relevant, government approved quantification protocol(s) being applied to this project. Include the year and version of the protocol used.
Protocol(s) Justification:	Describe how the quantification protocol is applicable to the project and how the project generating emission reductions are additional to what otherwise would have occurred in the absence of the project.
Other Environmental Attributes:	List any other environmental attributes/credits/benefits this project is generating / eligible for (such as Renewable Energy Certificates (RECs)).
Legal Land Description of the Project and/or Other Unique Site Descriptions:	<p>Include the latitude and longitude for each unique location or installation<sup>16</sup></p> <p>Latitude: _____</p> <p>Longitude : _____</p> <p>Provide additional details to assist in identifying the unique location. Note, projects must be located in Alberta and result in reductions and/or removals of provincial greenhouse gas emissions.</p> <p>Describe the project boundary that may extend beyond the physical or geographical boundaries of the project's infrastructure, or may be a smaller portion of a larger physical site boundary.</p>
Ownership:	Provide details on ownership of the project. Where more than one party has a legal right to the offset credits generated from the

<sup>15</sup> Starting January 1, 2012, AESRD will no longer be accepting new historic (retroactive) credits. Offset projects must demonstrate a project start date on or after January 1, 2002 and are eligible to generate credits on a go forward basis from project creation on the registry. More information on go forward crediting is provided in section 3.2.5 and 3.2.6 of the Technical Guidance for Offset Project Developers.

<sup>16</sup> Projects such and wind farms with more than one turbine and aggregated projects like agricultural tillage projects must provide a detailed location list to the registry. This is kept confidential and is not posted on the registry. Templates can be requested by emailing [AEOR@climatechangecentral.com](mailto:AEOR@climatechangecentral.com).

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	project, it is the project developer’s responsibility to ensure he or she has obtained legal right to transact on the offset credits.
Reporting:	Confirm details on frequency of reporting and verification for the project. If changes in the proposed verification schedule have occurred, provide an explanation for the changes.
Verification	State the third party verifier used and how they meet the requirements for a third party verifier stated in Section 7 of the <i>Specified Gas Emitters Regulation</i> and the Section 6.0 of the Technical Guidance Document for Offset Project Developers.
Other	Provide any additional information required to support the offset project.

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1 **3) Project Contact Information**

<p><b>Project Developer Contact Information</b></p>	<p>[Enter project developer company name.]</p> <p>[Enter main Contact name for the project developer company:]; [Enter title of contact:]</p> <p>Enter project developer street address.]:</p> <p>[Enter city.] [Enter Province/State:]</p> <p>[Enter postal code.] [Enter country.]</p> <p>[Enter telephone with area code.]:</p> <p>[Enter fax with area code.]</p> <p>[Enter email address of contact for the project developer.]</p> <p>[Enter website address.]</p>	<p>[Enter the names of the other contacts for the project developer company.]</p> <p>[Enter title of contact:]</p> <p>[Enter email address of contact for the project developer.]</p> <p>[Enter the names of the other contacts for the project developer company.]</p> <p>[Enter title of contact:]</p> <p>[Enter email address of contact for the project developer.]</p>
<p><b>Authorized Project Contact</b></p> <p>(This is a contact that has been given the authority to act on behalf of the project developer.)</p>	<p>[Enter authorized project contact company name.]</p> <p>[Enter Contact Name(s) for the authorized project contact company:]; [Enter title of contact:]</p> <p>Enter authorized project contact street address.]:</p> <p>[Enter city.] [Enter Province/State:] [Enter postal code.] [Enter country.]</p> <p>[Enter telephone with area code.]:</p> <p>[Enter fax with area code.]</p> <p>[Enter email address of contact for the authorized project contact.]</p> <p>[Enter website address.]</p>	
<p><b>Verification Organization</b></p>	<p>[Enter company name of the verifier]</p> <p>[Enter Contact Name(s) for the verifying company:]; [Enter title of contact:]</p> <p>[Enter verifier street address.]:</p> <p>[Enter city.] [Enter Province/State:] [Enter postal code.] [Enter country.]</p> <p>[Enter telephone with area code.]:</p> <p>[Enter fax with area code.]</p> <p>[Enter email address of contact for the verifier contact.]</p>	

[Enter website address.]

[Enter how many concurrent verifications this organization has provided for your company]

1  
2 **4) Project Description**

3 Provide description of the project operations and location of project.  
4

5 **5) Project Implementation and Variances**

6 Describe the details on any changes to the project such as modifications in calculation  
7 procedures, data collection and/or record keeping procedures, emissions factors or other  
8 variables and any changes to the legal requirements of the project.  
9

10 This includes any updates made to the offset project plan. Any changes made to the offset  
11 project plan must be clearly documented and justified. Include a discussion of the impacts  
12 to annual project emissions.  
13

14 **6) Reporting Period**

15 State the reporting period of the project. Note: This period can vary by project and can be  
16 up to a maximum of the credit duration period for the project (8-years for most project  
17 types).  
18

19 **7) Greenhouse Gas Calculations**

20 Provide the calculations and formula on how the greenhouse gas reductions/removals (in  
21 tonnes CO<sub>2</sub> e) were calculated, including clearly identifying all inputs, emission factors,  
22 equations and methods.

23 Identify if any of the flexibility mechanisms applicable to the project such as the use of  
24 site-specific emission factors and what sources and sinks were added or removed.

25 Provide justification where this information is different from the information provided in  
26 the offset project plan.  
27

28 **8) Greenhouse Gas Assertion**

29 The greenhouse gas assertion is a statement of the number of offset tonnes achieved  
30 during the reporting period. The assertion must identify emissions reductions per vintage  
31 year and should include a breakout of individual greenhouse gas types (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O,  
32 SF<sub>6</sub>, HFCs, and PFCs) applicable to the project and total emissions reported as tonnes of  
33 CO<sub>2</sub> e. The total in units of tonnes of carbon dioxide equivalent (CO<sub>2</sub> e) calculated using  
34 the global warming potentials referenced in *Specified Gas Emitters Regulation* must be  
35 included.  
36

37 The following table is a sample of how the greenhouse gas assertion, containing the  
38 calculated number of offset tonnes achieved, separated by each unique vintage year, can  
39 be presented.  
40  
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	PFC (t CO <sub>2</sub> e)	HFC (t CO <sub>2</sub> e)	SF <sub>6</sub> (t CO <sub>2</sub> e)	CO <sub>2</sub> (t CO <sub>2</sub> e)	CH <sub>4</sub> (t CO <sub>2</sub> e)	N <sub>2</sub> O (t CO <sub>2</sub> e)	CO <sub>2</sub> e (t CO <sub>2</sub> e)	Total (t CO <sub>2</sub> e)
Enter vintage year								
Enter vintage year								
Enter vintage year								

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1 **Project Developer Signature**

I am a duly authorized corporate officer of the project developer mentioned above and have personally examined and am familiar with the information submitted in this offset project report including the accompanying greenhouse gas assertion on which it is based. Based upon reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, I hereby warrant that the submitted information is true, accurate and complete to the best of my knowledge and belief, and that all matters affecting the validity of the emission reduction claim or the protocol(s) upon which it is based have been fully disclosed. I understand that any false statement made in the submitted information may result in de-registration of credits and may be punishable as a criminal offence in accordance with provincial or federal statutes.

The project developer has executed this offset project report as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Enter name of project as being registered

Enter name of project developer(s)

Signature: \_\_\_\_\_

Date: Enter date

Name: Enter Name

Title: Enter Title

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# *Alberta Offset System Greenhouse Gas Assertion of Emissions Reduction Credits*

## **Project Developer:**

Company Name  
Street Address  
City, Province Postal Code

Company Contact: Contact Name and Title  
Telephone: Contact Phone Number  
Fax: Contact Fax Number  
Email contact: Contact Email

---

## **Project Documents:**

Offset Project Report: Enter project title (as registered on the Alberta Emissions Offset Registry)

Offset Project Plan: Enter project title (as registered on the Alberta Emissions Offset Registry)

Applicable Quantification Protocol(s): State the relevant government approved quantification protocol(s) being applied to this project. Include the year and version of the protocol(s) used.

---

## **Project Identification:**

Registered Project Name: Enter project name (as registered on the Alberta Emissions Offset Registry)

Project Description: Provide a brief description of the project

Project Location: Provide the legal land location for the project

---

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**Emission Reduction/Removal Credit Assertion:**

Emission reduction crediting period: Enter the dates of the crediting period covered by the greenhouse gas assertion and associated offset project report.

Total quantity (t CO<sub>2</sub> e): Enter total claim amount

<b>VINTAGE - Emission Reduction Credit Creation Period</b> - dates covered by the greenhouse gas assertion and reporting, separated by each unique vintage year.	<b>QUANTITY</b> - total quantity of claim expressed in tonnes of carbon dioxide equivalent (t CO <sub>2</sub> e)
Enter vintage year including dates if claim is not full vintage year (Jan1-Dec31)	(verified quantity)
Enter vintage year including dates if claim is not full vintage year (Jan1-Dec31)	(verified quantity)
Enter vintage year including dates if claim is not full vintage year (Jan1-Dec31)	(verified quantity)
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Enter vintage year including dates if claim is not full vintage year (Jan1-Dec31)	(verified quantity)
Enter vintage year including dates if claim is not full vintage year (Jan1-Dec31)	(verified quantity)

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## PROJECT DEVELOPER AUTHORIZATION

I am a duly authorized corporate officer of the project developer mentioned above and have personally examined and am familiar with the information submitted in this Assertion Statement, the accompanying project document on which it is based. Based upon reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, I hereby warrant that the submitted information is true, accurate and complete to the best of my knowledge and belief, and that all matters affecting the validity of the emission reduction claim or the protocol(s) upon which it is based have been fully disclosed. I understand that any false statement made in the submitted information may result in de-registration of credits and may be punishable as a criminal offence in accordance with provincial or federal statutes.

Signature: \_\_\_\_\_

Date: Enter Date

Name: Enter Name

Title: Enter Title

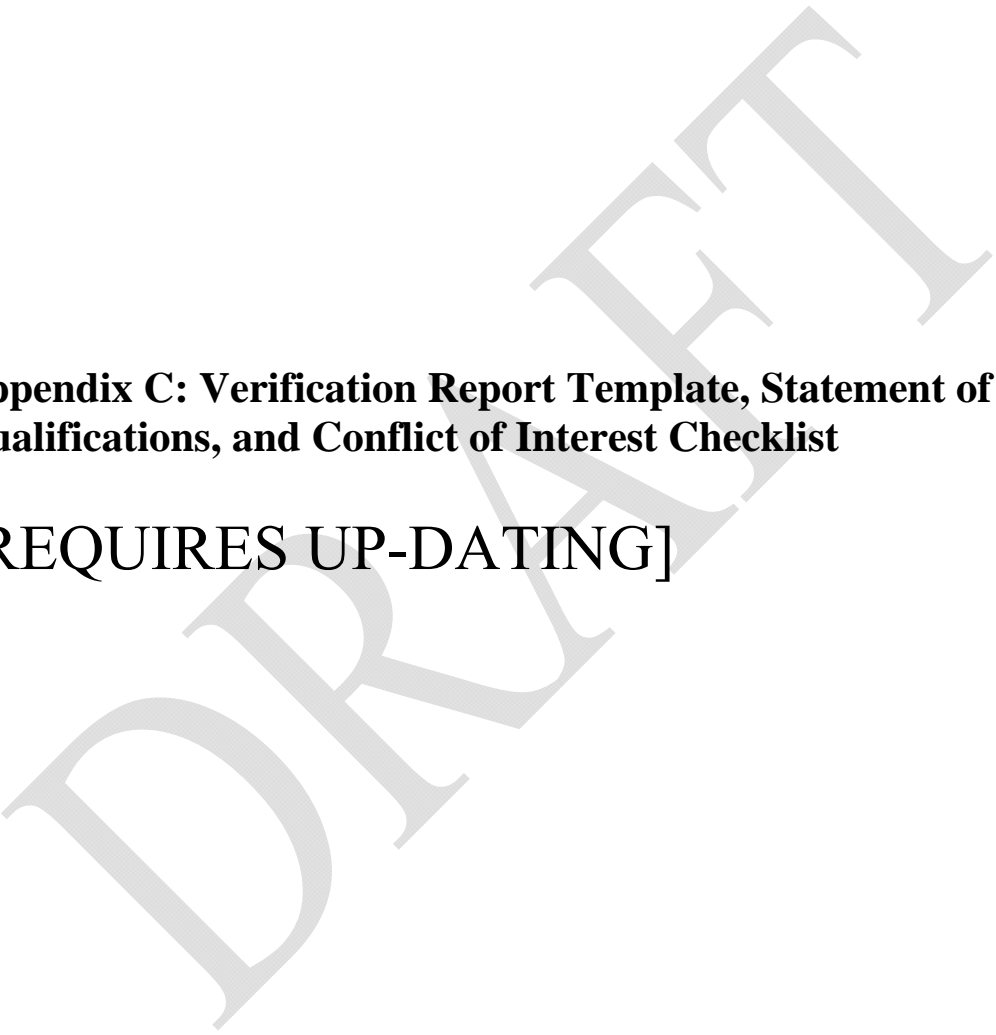
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**Appendix C: Verification Report Template, Statement of Qualifications, and Conflict of Interest Checklist**

**[REQUIRES UP-DATING]**



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**Appendix D: Statutory Declaration**

**[REQUIRES UP-DATING]**

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