



Request for Applications

Clean Infrastructure Royalty Credit Program 2018

Oil and Gas Division

Ministry of Energy, Mines and Petroleum Resources

RFA Number: 2018-CIRCP-01

Issue date: March 5, 2018

Closing Time: Applications must be received before **2:00 PM** Pacific Time on **May 18, 2018**

Delivery of Applications:

Proposals must be in English. Proponents may submit one (1) hard copy and one (1) electronic copy (on a flash drive) of its application. Applications must be submitted by hand delivery or courier to:

Attention: Jennifer White, Senior Project Manager
Regulatory and Infrastructure Branch
Oil and Gas Division
Ministry of Energy, Mines and Petroleum Resources
5th Floor – 1810 Blanshard Street, Victoria, BC V8T 4J1

Government Contact Person:

All enquiries related to this Request for Application are to be directed, in writing, to:

Jennifer White, Senior Project Manager
e-mail: Jennifer.E.White@gov.bc.ca

Information obtained from any other source is not official and should not be relied upon. Enquiries and any responses will be recorded and may be distributed to all Applicants at the Province's option.

Important Notice:

Nothing in this section or document or its attachments authorizes or should be construed as the authorization to conduct oil and gas activities as defined under the Oil and Gas Activities Act or any other activities that may require permits or other authorizations under applicable law.

Table of Contents

A. DEFINITIONS AND ADMINISTRATIVE REQUIREMENTS	3
B. ADDITIONAL DEFINITIONS	5
1. ELIGIBLE PROJECT.....	5
2. STEP 1 (PROJECT CONSTRUCTION).....	5
3. STEP 2 (POST-PROJECT VERIFICATION).....	5
4. PROJECT COMPLETION	6
5. ELIGIBLE COSTS.....	6
6. INELIGIBLE COSTS	6
C. CLEAN INFRASTRUCTURE ROYALTY CREDIT PROGRAM SUMMARY.....	7
D. APPLICATION FORMAT	7
E. SUBMISSION REQUIREMENTS.....	9
1. GENERAL INFORMATION	9
2. DELIVERY OF APPLICATIONS.....	9
F. EVALUATION, RANKING AND SELECTION.....	10
1. MANDATORY CRITERIA.....	10
2. EVALUATION CRITERIA.....	10
G. CIRCP PROJECT AGREEMENTS.....	12
H. CIRCP GUIDANCE DOCUMENT	13
I. FURTHER INFORMATION	13
1. CIRCP WEBSITE	13
2. ENQUIRIES	13
APPENDIX A: CIRCP QUANTIFICATION METHODOLOGY	15
APPENDIX B: POST-PROJECT VERIFICATION PROCESS	18

A. Definitions and Administrative Requirements

1. Definitions

Throughout this RFA, the following definitions apply:

- a) “Administrator” means “administrator” as defined in the Regulation;
- b) “Agreement” means a written agreement resulting from this RFA executed by the Province and Successful Applicant;
- c) “Applicant(s)” means a Producer(s) or Pipeline Company(ies) applying jointly with a Producer(s), that submits an application or applications in response to this RFA;
- d) “Closing Time” means the closing time indicated on page one of this RFA;
- e) “Ministry” means the Ministry of Energy, Mines and Petroleum Resources;
- f) “must”, or “mandatory” means a requirement that must be met in order for an application to receive consideration;
- g) “Pipeline Company” means “pipeline company” as defined in the Regulation;
- h) “Producer” means “producer” as defined in the Regulation;
- i) “Program” means the Clean Infrastructure Royalty Credit Program;
- j) “Province” means Her Majesty the Queen in Right of the Province of British Columbia as represented by the Administrator;
- k) “Regulation” means the Petroleum and Natural Gas Royalty and Freehold Tax Regulation, B.C. Reg. 495/92 and any amendments thereto; and
- l) “Successful Applicant” means a Producer(s) or a Pipeline Company(ies) applying jointly with a Producer(s) with whom the Administrator, or her delegate(s), intends to enter into negotiations for an Agreement.

See Section B: Additional Definitions for additional information.

2. Term and Conditions

The following terms and conditions will apply to this RFA. Submission of an application in response to this RFA indicates acceptance of all the terms that follow and that are included in any addenda issued by the Province. Provisions in applications submitted by an Applicant that contradict any of the terms of this RFA will not be considered or agreed to by the Administrator and will be of no force and effect.

3. Eligibility

Applications will only be accepted from Producer(s) or Pipeline Company(s) applying jointly with Producer(s).

4. Changes to Applications

By submission of a clear and detailed written notice to the Government Contact Person indicated on page one, an Applicant may amend or withdraw its application prior to the Closing Time. Applicants may not change the wording of their applications after the Closing Time and no words or comments will be added to the application unless such revisions were requested by the Province for purposes of clarification.

5. Late Applications

Applications submitted to the Ministry after the Closing Time will not be accepted and will be returned to the Applicant unread.

6. Ownership of Applications

All applications submitted to the Program will be under the custody and control of the Province, become the property of the Province once submitted, and are subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. The application(s) will be used to assess project(s) that may be eligible under the Program. For more information regarding this Program, refer to the Government Contact Person indicated on page one.

7. Acceptance of Applications

- a) This RFA should not be construed as an agreement to purchase goods, services or construction. The Province is not bound to enter into an Agreement with any Applicant. Applications will be assessed in light of the stated review criteria. Other than receipt of applications submitted prior to the Closing Time, the Province will be under no obligation to receive further information or materials, whether written or oral, from any Applicant or any other person with respect to the Program.
- b) Neither acceptance of an application nor execution of an Agreement will constitute approval of any activity or development contemplated in any application that requires any approval, permit or license pursuant to any federal, provincial, regional district or municipal statute, regulation or by-law.

8. Evaluation of Applications

Evaluation of applications will be by a committee formed by the Province and may include employees and contractors of the Province. Applications will be checked against the mandatory criteria. Applications not meeting all the mandatory criteria will be rejected without further consideration. Applications that do meet the mandatory criteria will then be further evaluated based on established criteria and ranked.

9. Results Notification to Applicants

At the conclusion of the RFA process, all Successful Applicants will be notified in writing. This notification will not constitute an Agreement.

10. Negotiation Delay

If an Agreement with a Successful Applicant has not been fully negotiated to the satisfaction of the Administrator within 30 days of an Applicant receiving notification that it is a Successful Applicant, the Province may, at its sole discretion at any time thereafter, terminate negotiations with that Successful Applicant.

11. Applicants' Expenses

Applicants are solely responsible for their own expenses in preparing an application and for subsequent negotiations with the Province, if any. If the Province elects to reject all applications, the Province will not be liable to any Applicant for any claims, whether for costs or damages incurred by the Applicant in preparing the application, loss of anticipated profit in connection with any final Agreement, or any other matter whatsoever.

12. Limitation of Damages

Further to the preceding paragraph, the Applicant, by submitting an application, agrees that it will not claim from the Province damages or any other compensation, for whatever reason, relating to an Agreement, if any, or in respect of the RFA process, in excess of an amount equivalent to the reasonable costs incurred by the Applicant in preparing its application and the Applicant, by submitting an application, waives any claim for loss of profits if no Agreement is entered into with the Applicant.

13. Currency and Taxes

Costs described in an application are to be submitted:

- a) in Canadian dollars; and
- b) inclusive of duty, where applicable; FOB destination, delivery charges included where applicable.

14. Completeness of Applications

By submission of an application the Applicant warrants that all labour, materials and components necessary to design and construct the project described in such application have been identified therein or will be provided under an Agreement at no additional cost to the Province.

15. Partner Application

- a) If a combination of Producer(s) and Pipeline Company(ies) will be involved in a given project, all such persons must submit a joint application in respect of a project and each such party must be clearly identified in the application.
- b) The Province may refuse to consider an application involving multiple parties where the Province determines, in its sole discretion, that current or past corporate or other interests pertaining to one or more of such parties may give rise to a conflict of interest in connection with the project proposed in an application, or the Program described in this RFA. If an Applicant is in doubt as to

whether its proposed application gives rise to a conflict of interest, the Applicant should consult with the Government Contact Person listed on the RFA cover page prior to submitting an application.

16. Agreement

Any Agreement will be substantially similar to the terms and conditions of the sample agreements set out on the RFA webpage, which also includes requirements as outlined in Section G of this document.

The Administrator will only sign a single Agreement concerning a given project. All Producers and Pipeline Companies involved with the project shall be parties to such Agreement. Once an Agreement has been fully signed, no additional parties will be allowed to be added, nor other changes made, without written consent of all parties thereto.

17. Liability of Errors

While the Province has used considerable efforts to ensure information in this RFA is accurate, the information contained in this RFA is supplied solely as a guideline for Applicants. The information is not guaranteed or warranted to be accurate by the Province, nor is it necessarily comprehensive or exhaustive. Nothing in this RFA is intended to relieve Applicants from forming their own opinions and conclusions with respect to the matters addressed in this RFA.

18. Modification of RFA

The Province reserves the right to modify this RFA at any time at its sole discretion. This includes the right to cancel this RFA at any time prior to entering into any Agreement.

19. Use of RFA

Any portion of this document, or any information supplied by the Province in relation to this RFA may not be used or disclosed, for any purpose other than for the submission of applications.

20. No Lobbying

Applicants must not attempt to communicate directly or indirectly with any employee, contractor or representative of the Province, including the evaluation committee and any elected officials of the Province, or with members of the public or the media, about the application described in this RFA or otherwise in respect of the RFA, other than as expressly directed and permitted by the Province.

B. Additional Definitions

Also refer to the Project Agreement for definitions in relation to the Project Agreement.

1. Eligible Project

Category 1: An “Eligible Project” is one undertaken by a Producer(s) or combination of Producer(s) and Pipeline Company(ies) that reduces greenhouse gas (GHG) emissions from vented sources¹ by the retrofit, replacement, or conversion of equipment currently in operation in British Columbia. Example project types:

- 1) High-bleed to low-bleed conversions;
- 2) Instrument gas to instrument air conversions;
- 3) Pump conversions; and
- 4) Vent gas capture projects.

Category 2: An “Eligible Project” is one undertaken by a Producer(s) or combination of Producer(s) and Pipeline Company(ies) that reduces GHG emissions through the electrification of equipment and/or facilities in British Columbia. Example project types:

- 1) Greenfield electrification of oil and gas equipment and/or facilities such as wellpads, wellsites compressors and other equipment; and
- 2) Retrofitting such equipment and/or facilities for electrification.

2. Step 1 (Project Construction)

Step 1 activities include the following:

- a) Design activities, including planning, applications and surveying.
- b) Construction activities including installation, retrofit, replacement and conversion of equipment. Step 1 construction activities cannot start before May 18, 2018.

3. Step 2 (Post-Project Verification)

Step 2 activities include the following:

- a) Applicant submits and obtains approval by the Administrator of a Verification Plan.
- b) Applicant completes a GHG Emissions Reduction Report that details the actual GHG emissions reductions from the project; and,
- c) Review of the GHG Emissions Reduction Report, and submission of a verification statement, by a qualified, third party verification body.² Verification will typically require the use of one year of data.

¹ Vented sources refer to sources of “venting emissions” as defined in BC’s Greenhouse Gas Emission Reporting Regulation.

² The requirements for a “verification body” are defined in section 26(1) of BC’s Greenhouse Gas Emission Reporting Regulation.

4. Project Completion

A project must be complete on or before the earlier of (i) the 5th anniversary of the Agreement; and (ii) December 31, 2023. This five year project timeframe includes the completion of both Step 1 (Project Construction) and Step 2 (Post-Project Verification).

To be eligible for a royalty deduction under the Program, an Applicant must complete Step 1 (Project Construction) on or before the earlier of (i) the third anniversary of the Agreement, and (ii) December 31, 2021.

To be eligible for a royalty deduction under the Program, an Applicant must complete Step 2 (Post-Project Verification) on or before the earlier of (i) the fifth anniversary of the Agreement, and (ii) December 31, 2023.

5. Eligible Costs

- a) Category 1 Eligible Costs are those costs incurred by the Applicant(s) in the retrofit, replacement, or conversion of equipment currently in operation in British Columbia for the purpose of reducing GHG emissions from vented sources, as defined in the Project Agreement.
- b) Category 2 Eligible Costs are those costs incurred by the Applicant(s) through the electrification of equipment and/or facilities in British Columbia (either greenfield or retrofit) for the purpose of reducing GHG emissions, as defined in the Project Agreement.
- c) Subject to 5 d) below, Eligible Costs must be between the project start date and project completion date of a project as defined in Schedule A of the Project Agreement, and which are based on RFA Response Template Section 5 “Description of Project Work and Step(s)”.
- d) Any Eligible Costs for the project that are incurred prior to the project start date must be pre-approved by the Administrator, and included on Project Agreement **Schedule B.5 – Special Equipment, Inventory or Services**. Any costs that fall outside of the project dates and are not included on Schedule B.5 will be deemed ineligible.

6. Ineligible Costs

- a) Contingency allowances, administration costs, overhead, accounting, interest and the purchase of, and amortization and depreciation on, capital equipment that is not integral to the operation of the project;
- b) Costs associated with maintaining compliance with regulations, including the Greenhouse Gas Emission Reporting Regulation;
- c) maintenance costs; and
- d) goods and services tax (GST).

C. Clean Infrastructure Royalty Credit Program Summary

The Regulatory and Infrastructure Branch, Oil and Gas Division, Ministry of Energy, Mines and Petroleum Resources invites applicants within the oil and gas industry to compete for \$19.3 million in approved royalty deductions for the 2018 instalment of the Clean Infrastructure Royalty Credit Program (the Program).

The purpose of the Program is to advance clean technologies and solutions for reducing greenhouse gas (GHG) emissions linked to the development and production of BC's oil and natural gas resources. The focus of the 2018 Program is to achieve GHG emission reductions in two eligible project categories: vented sources and electrification.

The Program complements initiatives for methane and other GHG emission reductions by providing an incentive for early actions. This is accomplished through a provincial royalty deduction of up to 50 percent for Eligible Projects, as approved by the Ministry.

Eligible Projects for 2018 include Category 1 projects focusing on reductions in methane emissions from vented sources (upgrades and retrofits only), e.g., high-bleed to low-bleed pneumatic conversions, instrument gas to instrument air conversions, pump conversions, and vent gas capture projects; and Category 2 projects that reduce GHG emissions through electrification of equipment and/or facilities.

The approved royalty deduction amount being competed in 2018 will be evenly split, with \$9.65 million allocated to each of the two project categories. Category 1 and Category 2 project applications will be evaluated separately. An application may include a combination of both eligible project categories, but each application will initially only be evaluated under the project category where the most GHG emissions are estimated to occur. If one category is undersubscribed, any unused royalty deductions from that category may be made available to applications in the other category. Applicants may submit more than one application to the Program.

Applicants will be required to fund the entire cost of an approved Eligible Project and may receive up to 50 percent of the lesser of the estimated completion cost for the project or the amount actually spent to complete the Project, as approved by the Ministry.

Producers (or Pipeline Companies in a contractual arrangement with one or more Producers), intending to undertake a project are eligible to make an application pursuant to Section 4 of the Regulation.

D. Application Format

All application templates for the 2018 Program are available on the Program website, as noted in Section I. Please DO NOT use templates from any previous instalment as they have changed.

The required documents and templates for the 2018 Program are noted in the following table.

Table D.1: CIRCP RFA 2018 Application Documents

Doc #	Title	Description and Required Format
1.	Cover Letter	<p>Provide cover letter (3 page max) on company letterhead that includes the following information:</p> <ul style="list-style-type: none"> • A corporate overview of the Applicant company(s); • A summary of the proposed project; and • A summary of the key business case features of the proposed project. <p>Required Electronic Format: PDF, on Company letterhead</p>
2.	Supporting Letter(s) (if a partner application)	<p>For partner applications, please provide one letter signed by each partner (or individual letters from each) that agrees to the joint proposed project application. Each letter must have the exact percentage of the royalty deduction allocation between the Producers, and all relevant contact information.</p> <p>Required Electronic Format: PDF, on Company letterhead</p>
3.	RFA Response Template	<p>This is the primary document used by the Ministry for evaluation and ranking of the project application.</p> <p>Required Electronic Format: PDF and Microsoft Word</p> <p>Section 6 Cost Breakdown Table (attachment) Required Electronic Format: PDF and Microsoft Excel</p> <p>Section 8 GHG Emissions Reductions Calculation (attachment) Required Electronic Format: PDF and Microsoft Excel</p> <p>Section 9 Industry Payback Period (attachment) Required Electronic Format: PDF and Microsoft EXCEL</p>
4.	Proposed Project Schedule	<p>Outline the proposed project schedule using the template provided on the Program website.</p> <p>Required Electronic Format: PDF and Microsoft EXCEL</p>
5.	Mapping Requirements	<p>An 8.5x11 colour map that shows the location of the project in relation to existing infrastructure/equipment and communities in the area. Areas where proposed project activities will occur should be clearly identified on the map.</p> <p>Required Electronic Format: PDF</p>

E. Submission Requirements

1. General Information

The application must include all documents as outlined in Section D.

One (1) paper copy of all documents and one (1) electronic copy of all documents on a flash drive must be submitted together. Do not submit the paper copy documents in a binder.

The paper copy must contain the following documents in 8.5 x 11 format, printed in colour:

1. Cover Letter
2. Supporting Letter (if applicable)
3. RFA Response Template (including original signed cover page)
4. Cost Breakdown Table
5. GHG Emissions Reductions Calculation
6. Industry Payback Period Calculation
7. Project Schedule
8. Project Map

The flash drive must contain the following documents:

1. One PDF file containing the following documents:
 - a. Cover Letter
 - b. Supporting Letter (if applicable)
 - c. RFA Response Template
 - d. Cost Breakdown Table
 - e. GHG Emissions Reductions Calculation
 - f. Industry Payback Period Calculation
 - g. Project Schedule
 - h. Project Map
2. RFA Response Template (.docx)
3. Cost Breakdown Table (.xlsx)
4. GHG Emissions Reductions Calculation (.xlsx)
5. Industry Payback Period Calculation (.xlsx)
6. Project Schedule (.xlsx)

IMPORTANT: The RFA Response Template must be fully completed, signed and submitted in the sequence and formats set out in Section D & E to ensure full consideration is given during the Ministry's evaluation process.

2. Delivery of Applications

All applications must be received before 2:00 PM Pacific Time on May 18, 2018. Applications will only be accepted by courier or by hand delivery to the following address:

Regulatory and Infrastructure Branch
Oil and Gas Division
Ministry of Energy, Mines and Petroleum Resources
5th Floor – 1810 Blanshard Street
Victoria, BC V8T 4J1
Attention: Jennifer White, Senior Project Manager

F. Evaluation, Ranking and Selection

This section details all of the criteria against which applications will be evaluated and ranked. Applicants should ensure that they respond to all criteria in order to be eligible to receive full consideration during the evaluation.

1. Mandatory Criteria

Applications that do not meet the following mandatory criteria will be excluded from further consideration and not proceed to the next stage, Evaluation Criteria.

Table F.1: Mandatory Criteria

a) Applications must be in English.
b) Applications must be received by the Ministry at the closing location by the specified Closing Time.
c) Applications must be received by Courier or Hand Delivery. Applications must NOT be sent by facsimile, e-mail or regular Canada Post mail.
d) Applications must be submitted in required format (as outlined in Sections D & E).
e) An original signed page 1 of the RFA Response Template must be submitted as part of the application.
f) Physical construction activities cannot start before the Closing Time.

The Ministry will also check each Applicant's record of royalty payments through the Ministry of Finance. The Ministry will reject applications from Applicants that have, in the Ministry's sole opinion, an unsatisfactory record of making royalty payments to the Province.

2. Evaluation Criteria

Applications meeting all of the Mandatory Criteria will be further assessed against the Evaluation Criteria. The Ministry will evaluate and score Applications based on the information submitted in the RFA Response Template. All questions in the RFA Response Template should be answered fully for evaluation purposes. If any questions are not

addressed in the RFA Response Template, the application will not be eligible to receive full marks. The Ministry may contact Applicants to further confirm information about an application, as needed.

Note: Category 1 and Category 2 Eligible Projects will be evaluated separately. If an applicant(s) has components of both categories in a proposed project, the application will be evaluated and ranked in the category where the most emission reductions are estimated to occur.

Table F.2: Evaluation Criteria

Evaluation Criteria	Weight
Royalty Credit Emission Reduction Ratio (RFA Response Template Section 8)	60 %
Project Schedule (RFA Response Template Section 5 and Schedule Attachment)	10 %
Business Case (RFA Response Template Sections 5 and 9)	30 %
TOTAL:	100 %

The Ministry will use the three Evaluation Criteria noted in Table F.2 in ranking and selecting those applications that have met the Mandatory Criteria. These are:

Royalty Credit Emission Reduction Ratio (RCERR): The RCERR shall be calculated by taking the royalty deduction requested in the application and dividing by the GHG emissions reduction estimate, based on a 10 year period between January 1, 2019 and December 31, 2028.

$$RCERR = \frac{\text{Royalty deduction requested}}{\text{Estimated GHG emissions reduction (10 years)}}$$

The GHG emissions reduction estimate must be calculated by the Applicant using the relevant approved quantification methodology as outlined in Appendix A. A higher point score will be assigned to projects that demonstrate a lower RCERR.

Schedule: The schedule will be evaluated based on the Step 1 (Project Construction) Start Date and Completion Date, with a higher point score assigned to projects that achieve GHG emissions reductions earlier.

Business Case: The Project will be evaluated based on the description of project work and steps, identified barriers and risks, if the project uses new or innovative technology, the potential for future emissions reductions and the estimated payback period (in years).

Note: The Province reserves the right to approve royalty deductions to only one, more than one, or no applications.

G. CIRCP Project Agreements

On approval of a Project under the Program, the Producer(s) or Pipeline Company(ies) jointly applying with a Producer(s), will be required to enter into a Project Agreement with the Province. The Project Agreement sets out the requirements for an Approved Project. It is recommended that the appropriate Project Agreement template be reviewed to ensure that all Applicants understand the requirements of the Program, as well as any changes that may have been made from the previous iteration of the Program. The following sample Project Agreements are available for download on the Program website:

- a) Producer Agreement
- b) Producer (Partnership) Agreement
- c) Producer and Pipeline Company Agreement.

The following highlight key points in the Project Agreement that will apply to all Approved Projects:

- a) A Project Agreement will be entered into between the successful Applicant(s) and the Royalty Administrator that represents the Province.
- b) Any changes to the Project must be submitted in writing to the Administrator for consideration. Any amendment to an approved Project will not be considered within 6 months of the reference date of the Project Agreement. The Administrator has the discretion to accept or reject any proposed amendments to the Project Agreement after that 6 months has passed. If accepted, an Amendment to the Project Agreement will be necessary.
- c) The Applicant(s) must notify the Administrator in a timely manner and in writing that the Project has been cancelled.
- d) The project must be completed as outlined in Schedules A and C to the Project Agreement and any amendments thereto. If the project is not completed as outlined in the Project Agreement or Project Agreement Amendment, the royalty deduction may not be eligible for release.
- e) Half of the approved Step 1 (Project Construction) royalty deduction for an approved project may be requested at completion of Step 1. The second half of the approved Step 1 royalty deduction, and 100% of the approved Step 2 (Post-Project Verification) royalty deduction, may be requested at completion of Step 2, as outlined in the Project Agreement.

- f) The Producer(s) of an Approved Project is responsible for submitting a request for royalty deduction within six months of the completion date for Step 1 as outlined in Schedule B of the Project Agreement.
- g) The Producer(s) of an Approved Project is responsible for submitting a request for the remainder of royalty deduction within six months of the completion date for Step 2 as outlined in Schedule B of the Project Agreement.
- h) The Ministry may undertake an audit review of project costs of a completed Project, or a completed Step of a project, as set out in the Project Agreement. The Applicant(s) party to a Project Agreement for an Approved Project must provide reasonable assistance with auditing procedures when requested.

Note: The Province recommends that the Producer(s) of an Approved Project review the Ministry Royalty Deduction Submission webpage which provides information on requesting the release of an approved royalty deduction under the Program.

H. CIRCP Guidance Document

Before submitting an application, it is recommended that the Guidance Document, located on the Program website, be reviewed. This document provides additional information on the objectives and requirements of the Program, common questions and answers, and examples to assist with the preparation of the documents required when applying under the Program.

I. Further Information

1. CIRCP Website

The RFA Response templates, Project Agreement templates, Guidance Document, and other project information can be found on the Program website:

<https://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/oil-gas-royalties/clean-infrastructure-royalty-credit-program>.

2. Enquiries

All enquiries related to this RFA are to be directed, in writing, to the following Government Contact Person:

Jennifer White, Senior Project Manager
Regulatory and Infrastructure Branch, Oil and Gas Division
Ministry of Energy, Mines and Petroleum Resources
Jennifer.E.White@gov.bc.ca

Information obtained from any other source is not official and should not be relied upon.
Enquiries and any responses will be recorded and may be distributed to all Applicants at the
Province's option.

Appendix A: CIRCP Quantification Methodology

For each piece of equipment subject to installation, retrofit, replacement, or conversion in a proposed project, estimates for greenhouse gas (GHG) emissions reductions must be calculated as follows:

$$\text{Emissions}_{\text{Reduction}} = \text{Emissions}_{\text{Baseline}} - \text{Emissions}_{\text{Project}}$$

Where $\text{Emissions}_{\text{Baseline}}$ represents the business as usual emissions scenario for the equipment and $\text{Emissions}_{\text{Project}}$ represents the emissions scenario for the equipment due to the implementation of the proposed project.

All emissions estimates must be calculated using the most current version of the *Western Climate Initiative Final Essential Requirements of Mandatory Reporting - amended for Canadian Harmonization* as published on the Ministry of Environment and Climate Change Strategy's website: <https://www2.gov.bc.ca/gov/content/environment/climate-change/industry/reporting/quantify>.

To date, the relevant Western Climate Initiative (WCI) quantification methods (WCI.363 and others) are:

- **2012:** [Final Essential Requirements for Mandatory Reporting – Amended for Canadian Harmonization](#)
- **2013:** [WCI Essential Requirements for Mandatory Reporting – 2013 Addendum to Canadian Harmonization Version](#)

If the equipment type is not listed in the WCI quantification methods, an alternative quantification method may be proposed and must be approved by the Province.

The methodology for determining the appropriate $\text{Emissions}_{\text{Baseline}}$ scenario may differ from project to project. Suggested baseline estimate methodologies are presented in Table A.1. Further information on estimating project baselines can be found in the relevant carbon offset protocols for specific project types. Additional information and calculation examples are also provided in the CIRCP Guidance Document.

Table A.1: Baseline Estimate Methodologies

Project Type	Baseline Methodology	Parameters of Interest
High bleed to low-bleed pneumatic device conversion	Comparison-based ¹ combined with projection based. ² Possibly historically-based. ³	Hours of operation and bleed rate of sample population
Instrument gas to air	Projection-based	Volume of vent gas

Project Type	Baseline Methodology	Parameters of Interest
Pump conversion	Projection-based	Volume of fluid displaced or pump stroke count
Vent gas capture	Projection-based	Volume of vent gas
Electrification	Projection-based	Volume of gas released in functionally equivalent baseline

1 – Actual measurements from a control sample are compared with the project. This approach assumes that the control group is representative of the project.

2 - Projections are based on the direct measurement of key parameters in the project condition. Assumes functional equivalence between project and baseline. Projections are site specific and dynamic.

3 – Historical benchmarks are based on site specific, historical data prior to project implementation.

Category 1 Projects:

The Emissions_{Baseline} scenario must be calculated using historical operating information from the most recent twelve (12) month period available for the specific equipment subject to the application and the appropriate WCI equations. This information may include: the make and model of equipment, operating hours, consumption data, emissions factors, etc., as required in the WCI methods.³ Using this historical operating information, the Emissions_{Baseline} scenario should be developed by forecasting emissions over the proposed project period.

The Emissions_{Project} scenario must be calculated using the appropriate equations listed in WCI and the same project period as above, using the appropriate emissions factors and operating conditions for the equipment subject to the Program application. Table A.2 lists relevant equations for certain source types listed in WCI.363 that should be used for calculating the Emissions_{Baseline} and Emissions_{Project} scenarios.

Other relevant equations are also provided in WCI.363 methodology, such as determining CO₂ and CH₄ emission rates (Eqn 360-41) and estimating the mass-based rate of GHG emissions from a volumetric rate (Eqn 360-42).

³ If historical operating information is not available for the equipment subject to the application, generic operating information may be used with the approval by the Province. If generic equipment is used for the application, the Province will require that a 20 % discount factor be applied to ensure the estimated emissions are conservative.

Table A.2: WCI Reference Equations

Source Type	WCI Reference
High bleed/low bleed/intermittent pneumatic devices	Eqns 360-1, 360-2, 360-2a, 360-4, 360-5, 360-5a, 360-6
Pneumatic pump venting	Eqns 360-3, 360-3a, 360-3b
Dehydrator vents	Eqn 360-10
Compressor venting	Eqns 360-32, 360-33, 360-34, 360-35

Category 2 Projects:

A greenfield electrification project uses electricity to power equipment at oil and gas facilities, and since no infrastructure is in place, so there is no historic baseline. A simulated baseline is a type of project-specific baseline involving the construction of a model or simulation based on relevant good practice guidance. For electrification projects, the applicant must simulate a baseline scenario by collecting an inventory of equipment specifications from a statistically representative sample of similar facilities constructed within the past 5 years (constructed after Jan 1, 2013) by the same operator. If the applicant cannot provide a representative sample of facilities in that region, then supplemental data may be used from other operators with facilities in the same region. The simulated baseline should provide the same level of service as the project condition (e.g., gas-driven chemical injection pump vs. electric-driven pump to transport the same amount of liquid).

The Emissions_{Baseline} scenario’s GHG emissions due to the baseline operation of fossil fuel powered equipment are quantified using WCI quantification methods³.

The Emissions_{Project} associated with the electricity supplied by an integrated grid or isolated grid can be quantified using WCI quantification methods.

Appendix B: Post-Project Verification Process

The Post-Project Verification process for Approved Projects involves four main components:

1. **Draft Post-Project Verification Plan** - Submitted by the Applicant(s) as part of the RFA Response Template;
2. **Post-Project Verification Plan** – Submitted by the proponent(s) when applying for the release of a royalty deduction associated with Step 1 (Project Construction);
3. **GHG Emissions Reduction Report** – Submitted by the proponent(s) when applying for the release of a royalty deduction associated with Step 2 (Post-Project Verification); and,
4. **Verification Statement** – Submitted by the proponent(s) when applying for the release of a royalty deduction associated with Step 2 (Post-Project Verification).

1. Draft Post-Project Verification Plan

A Draft Post-Project Verification plan is submitted in Section 5 of the RFA Response Template. This draft plan must detail the expected verification body, the scope of verification activities, a work schedule, a sampling plan, quantification methodologies, and identification of what data may be required (and how it will be collected) to calculate the GHG emissions reductions in the GHG Emissions Reduction Report. An outline of the GHG Emissions Reduction Report must also be provided as part of the Draft Post-Project Verification Plan. This plan must follow the guidance provided by ISO 14064.

2. Post-Project Verification Plan

The Draft Post-Project Verification Plan may be revised by a proponent, in consultation with the Ministry, to ensure it meets the needs of the Program and be resubmitted upon completion of Step 1 (Project Construction).

Royalty deductions associated with Step 1 (Project Construction) will not be released unless the Proponent(s) has obtained approval of the Post-Project Verification Plan from the Administrator.

3. GHG Emissions Reduction Report

The proponent(s) must complete and submit a GHG Emissions Reduction Report (as per the outline provided in the RFA Response Template) that details the actual GHG emissions reductions from the project.

The GHG Emissions Reduction Report must contain, at minimum:

1. The title of the project;
2. The project's start date;
3. The period the GHG Emissions Reduction Report covers;
4. The amount and calculations for each of the following calculated for the GHG Emissions Reduction Report period:
 - Baseline emissions for each equipment or source type;

- Project emissions for each equipment or source type;
 - Emissions reductions for each equipment or source type.
5. Identification of any changes in information provided that have occurred since the CIRCP application was accepted;
 6. Identification of any differences between the GHG emissions as reported in the CIRCP application and those developed for the GHG Emissions Reduction Report;
 7. The following assertions by the Proponent:
 - (i) That the project was carried out as described in the accepted CIRCP application and Project Agreement;
 - (ii) That the measurements and calculations that resulted in the amounts asserted were carried out in accordance with the Post-Project Verification Plan approved by the Province.

Reporting requirements under the BC GHG Emission Reporting Regulation do not incorporate all the requirements of this Program's GHG Emissions Reduction Report, and must be supplemented accordingly to document all required information as noted above.

Post-project verification must be based on at least one year's worth of operating information unless approved otherwise by the Province. Notwithstanding the foregoing, project proponents will be required to comply with the post-project verification requirements set out in any Agreement entered into with the Administrator. The actual GHG emissions reductions from the project may differ from the estimate submitted in the Application, as operating conditions or other factors may change.

4. Verification Statement

A Verification Statement must be submitted by a qualified third party verification body⁴, based on the process and procedures used by the verification body, stating:

- The assertions in the GHG Emissions Reduction Report are materially correct and are a fair and accurate representation of the project's total attributable emissions reductions for a given period, and
- The GHG Emissions Reduction Report was prepared and the emissions reported in it were quantified in accordance with the methods described in approved Post-Project Verification Plan.

⁴ The requirements for a "verification body" are defined in section 26(1) of BC's Greenhouse Gas Emission Reporting Regulation.