

# CleanBC Industrial Incentive Program

## *Bituminous Coal Sector Guidance*

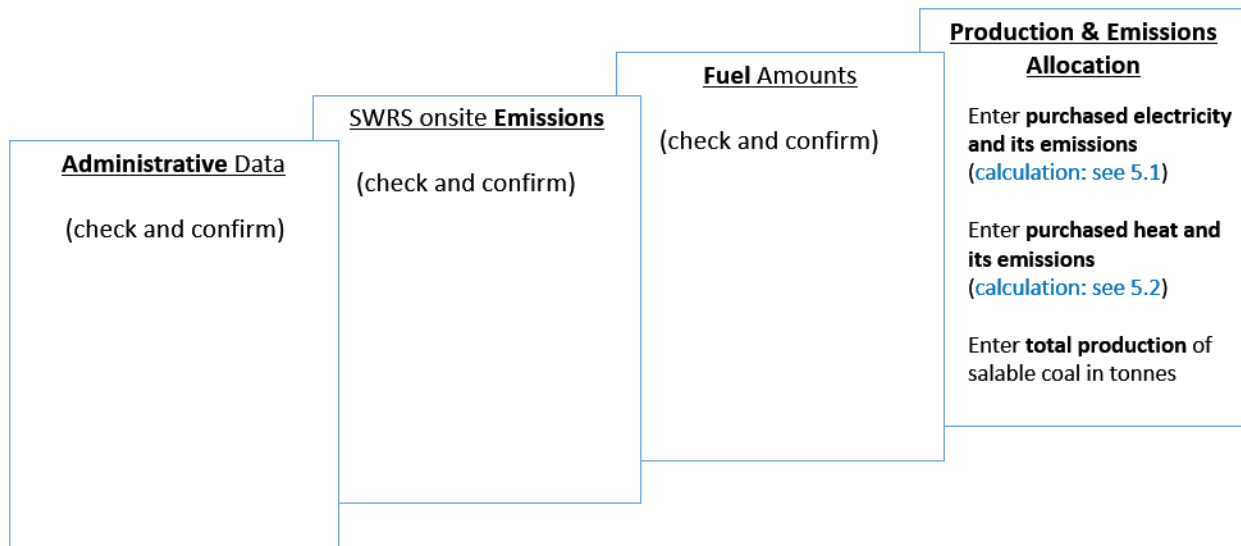
### 1. Applicable NAICS codes:

- **NAICS – 212114: Bituminous Coal Mining**

Sub-Sector	CIIP Product
Metallurgical Coal mining – Open Pit	Mining: Coal

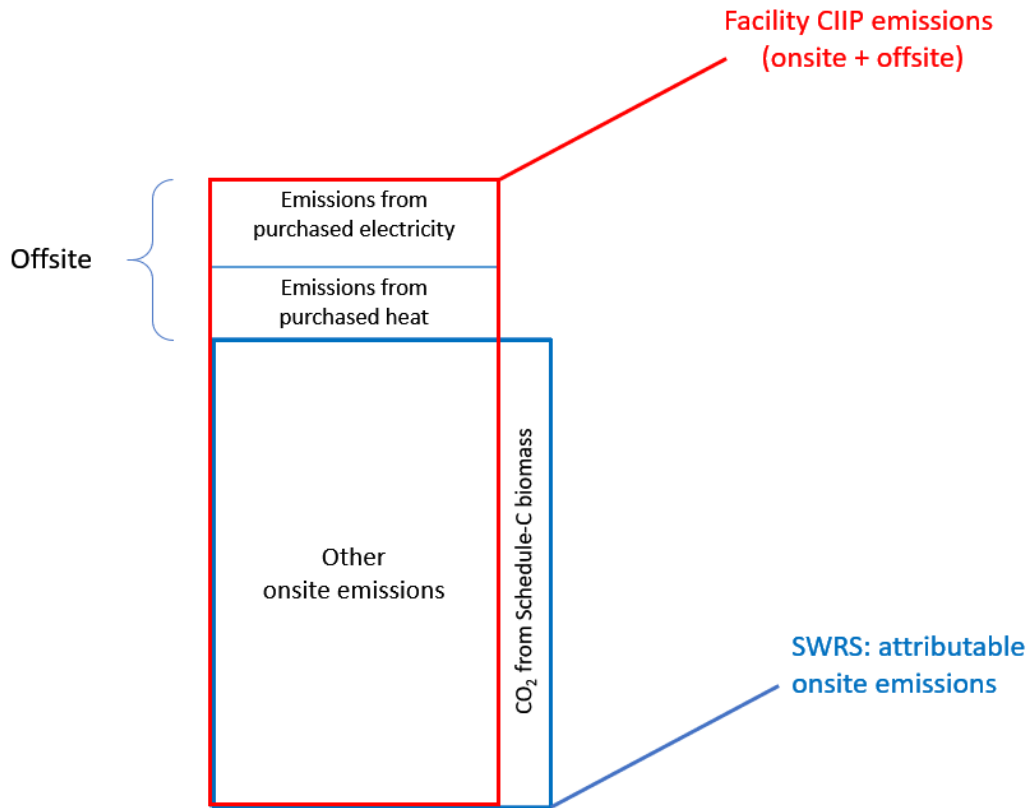
### 2. Quick Summary – Main Steps in CIIP application

- 2.1 Complete and submit a facility emission report in the Single Window Reporting System (SWRS)
- 2.2 Complete and submit a CIIP application (it is pre-filled with SWRS data where applicable)



(calculation) steps are detailed in section **5. Calculation Methodologies** below.

### 3. Facility Emissions for CIIP purposes



For the Facility emission total for CIIP purposes:

- Facility onsite emissions CO<sub>2</sub> from Schedule C biomass are excluded, and
- Facility offsite emissions from purchased electricity and/or heat are included.

CIIP Facility Emissions	= SWRS attributable Emissions - CO <sub>2</sub> from Schedule C biomass + Emissions from Purchased Electricity + Emissions from Purchased Heat
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Or, equivalently,

$$E_{Facility}^{CIIP} = E_{Attr.}^{SWRS} - E_{CO2bioC}^{SWRS} + E_{Purchased}^{Electr.} + E_{Purchased}^{Heat}$$

Facility onsite emissions are pre-filled in the CIIP application with data submitted through the SWRS system.

Facility offsite emissions associated with purchased electricity and/or heat must be calculated from electricity/heat amounts purchased. Both amounts and emissions are entered in the *Production and Emissions Allocation* section of the CIIP application.

#### 4. Completing a CIIP Application

The CIIP application has four sections. Where possible, the *Administrative*, *SWRS Onsite Emissions* and *Fuels* sections are pre-populated with data reported through the SWRS system. Applicants must review, confirm, and, if applicable, update this information and also enter production and emissions allocation information in the *Production and Emissions Allocation* section.

##### Administrative Data

Most information in the administrative section will be pre-populated from SWRS.

- Review pre-populated data for accuracy
- Enter the BC Corporate Registry number as it appears on [orgbook.gov.bc.ca](http://orgbook.gov.bc.ca)

**NOTE:** The BC Corporate Registry number and the operator's legal name on the CIIP application must match the entry on [OrgBook](http://OrgBook). The incentive payment will be issued to the legal business name as it appears on the CIIP application.

- Please ensure all mailing addresses follow the [Canada Post address format](#)
- Enter at least one application contact. The Primary Application Contact field will be pre-populated based on the user who starts an application; please confirm or edit as applicable. This will be the primary contact CAS will use for all application-related correspondence: questions, application status changes, review results, etc. A Secondary Application Contact can be added, if applicable
- Choose the primary NAICS code that the facility operates under from the available list. The NAICS codes in the pre-populated list reflect the sectors eligible to apply for CIIP. You will not be able to enter a NAICS code that is not on the list. The production information required to be entered in the *Production and Emissions Allocation* section will depend on the NAICS code selection

If you believe your facility's sector is eligible but your NAICS code is not on the list, please contact the CIIP team at [GHGRegulator@gov.bc.ca](mailto:GHGRegulator@gov.bc.ca).

##### SWRS Onsite Emissions

This section is pre-filled with data from the facility's SWRS report. Please review and confirm. If the information needs updating, this likely means that the SWRS report has to be updated first.

## Fuels

This section is pre-filled with data from the facility's SWRS report. Please review and confirm. If the information needs updating, this likely means that the SWRS report has to be updated first.

### Production & Emissions Allocation

**NOTE:** The ministry provides a calculator spreadsheet with the appropriate calculation formulas built in, to assist in calculations at this step of the CIIP application process (available [at this link](#)).

**NOTE:** To enter data as required in this section, first select 'Purchased Electricity', 'Purchased Heat', then 'Mining: Coal', as applicable, from the 'Product or Service' dropdown menu.

- Enter purchased electricity (in GWh) and purchased heat (in GJ)
  - enter 0 if not applicable
- Calculate and enter the emissions associated with purchased electricity, using the calculator (see section 5.1 below for details)
- Calculate and enter the emissions associated with purchased heat, using the calculator (see section 5.2 below for details)
- Enter production of salable coal in tonnes

Salable coal production includes all salable coal produced during the reporting year, regardless of whether sold during the year or added to inventory. It does not include salable coal sold from a previous year's production.

Salable coal production must not include any waste products.

### ***Allocating CIIP emissions to facility production***

- 100 percent of CIIP facility emissions are automatically allocated to the production reported

## Summary

Review your application for accuracy, review the terms and conditions, and submit the application.

The system will automatically perform some checks for consistency. If inconsistencies are found, the application will show a warning message, highlighting the issue requiring attention. To address any highlighted inconsistencies, you must go back to the relevant application section/tab and either correct the reported values or provide an explanation by entering a comment in the relevant section.

Additionally, the system may detect errors in your application, such as missing data. These errors must be corrected in order to submit an application. In certain exceptional cases when the issue cannot be addressed through the application system, you will have the ability to override the error message by providing an explanation and then submit the application.

Any unresolved warnings or errors may delay the processing of your application.

## 5. Calculation Methodologies

Unless explicitly stated otherwise in CIIP guidance, quantification and reporting of greenhouse gas emissions and related information under CIIP must comply with the *Greenhouse Gas Industrial Reporting and Control Act* (GGIRCA) and the Greenhouse Gas Emission Reporting Regulation (GGERR), including with the referenced in GGERR Western Climate Initiative (WCI) quantification methodologies.

The [WCI methodologies](#) typically applicable to open-pit metallurgical coal reporting operations are:

- WCI.020 General Stationary Combustion
- WCI.040 Electricity Generation
- WCI.280 Mobile Equipment at Facilities

In addition, GGERR requires that fugitive emissions from coal when broken or exposed to the atmosphere during mining in open-pit coal mines be quantified using the methodology described in GGERR [Bulletin 8](#) and provided below:

$$E_{Fugitive}^{Open Pit} = GWP^{CH_4} * EF_{Fugitive}^{CH_4} * Q_{ROM Coal}$$

where

$GWP^{CH_4}$  is the global warming potential of methane, currently 25<sup>1</sup>

$EF_{Fugitive}^{CH_4}$  is 0.86 tCH<sub>4</sub>/kt Coal Mined, the emission factor for fugitive methane for open-pit coal mines in BC<sup>2</sup>

$Q_{ROM Coal}$  is the amount of run-of-mine (ROM) coal in kilotonnes

$E_{Fugitive}^{Open Pit}$  are fugitive emissions in tonnes of CO<sub>2</sub>-equivalent (tCO<sub>2</sub>e).

A CIIP applicant must first submit an emission report in SWRS (SWRS report) complying with GGIRCA and GGERR and using the WCI and [Bulletin 8](#) methodologies. A CIIP application is then pre-filled where possible with applicable information from the SWRS report.

**NOTE:** Production is reported as amount of *salable* coal in tonnes, whereas the quantification of fugitive emissions in the SWRS emission report requires reporting amount of *run-of-mine* coal in kilo-tonnes.

<sup>1</sup> As listed in Column 4 of the [Schedule](#) to the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*.

<sup>2</sup> Canada NIR 2019, Part 2, Table A3-9.

### 5.1 Calculating emissions associated with purchased grid electricity

The ministry provides a calculator spreadsheet with the appropriate calculation formulas built in, to assist in calculations at this step of the CIIP application process (available [at this link](#)).

In the calculator, in the section on Purchased Electricity, select the applicable electrical grid (Integrated or Fort Nelson) from the pulldown menu in cell E11. This will cause the appropriate electricity intensity factor in tCO<sub>2</sub>e/GWh to be displayed in cell G11.

In the blue cell, enter the amount of purchased electricity (in GWh).

Emissions associated with purchased grid electricity are then automatically calculated and displayed in cell G13, in tonnes CO<sub>2</sub>e. For example:

Purchased Electricity				
INPUT each variable listed below:				
Purchased Electricity		Choose grid from dropdown menu		
	Electrical Grid:		Amount	Units
Emissions Intensity Factor of Grid	Integrated Grid	EIF <sub>El,Grid</sub>	40.10	tCO <sub>2</sub> e/GWh
Amount of electricity purchased		Q <sub>EL_PURCHASED</sub>	300.00	GWh
<b>Emissions from Purchased Electricity</b>		E <sub>EL_PURCHASED</sub>	12,030.00	tCO <sub>2</sub> e

Enter the amount of emissions from purchased grid electricity in the CIIP application.

The calculator uses the following methodology to determine emissions associated with purchased grid electricity:

If

$EIF^{El\cdot Grid}$  (selection) is the grid electricity emission factor for the selected grid and applicable year, in tCO<sub>2</sub>e/GWh;

$Q^{Electr\cdot} Purchased$  (input) is the quantity of purchased grid electricity, in GWh;

$E^{Electr\cdot} Purchased$  are the emissions associated with purchased grid electricity, in tCO<sub>2</sub>e.

Then

$$E_{Purchased}^{Electr\cdot} = EIF^{El\cdot Grid} * Q_{Purchased}^{Electr\cdot}$$

where  $EIF^{El\cdot Grid}$  data comes from the published [electricity emission intensity factor for grid-connected entities](#) for the selected grid for applicable year.

### 5.2 Calculating emissions associated with purchased heat

The ministry provides a calculator spreadsheet with the appropriate calculation formulas built in, to assist in calculations at this step of the CIIP application process (available [at this link](#)).

In the calculator, in the section on Purchased Heat, in the blue cell, enter the amount of purchased heat (in GJ).

Emissions associated with purchased heat are then automatically calculated and displayed in cell G22, in tonnes CO<sub>2</sub>e. For example:

**Purchased Heat**

		Amount	Units
Emissions Intensity Factor of Purchased	EIF <sub>BC Heat</sub>	0.063	tCO <sub>2</sub> e/GJ
Amount of heat purchased	Q <sub>H_PURCHASED</sub>	40,000.00	GJ
<b>Emissions from Purchased Heat</b>	E <sub>BC Heat</sub>	2,520.00	tCO <sub>2</sub> e

Enter the amount of emissions from purchased heat in the CIIP application.

The calculator uses the following methodology to determine emissions associated with purchased heat:

If

0.063 is the BC-specific heat emission factor, in tCO<sub>2</sub>e/GJ;

$Q_{Purchased}^{Heat}$  (input) is the quantity of purchased heat, in GJ;

$E_{Purchased}^{Heat}$  are the emissions associated with purchased heat, in tCO<sub>2</sub>e.

Then

$$E_{Purchased}^{Heat} = 0.063 * Q_{Purchased}^{Heat}$$