CleanBC Industrial Incentive Program

Bituminous Coal Sector Guidance

This guidance applies to reporting operations with primary NAICS codes as follows:

- NAICS – 212114: Bituminous Coal Mining

Sub-Sector: Coal - Open Pit, Metallurgical

CIIP Product: Mining - coal

Quantification and Reporting of Emissions and Related Information

Unless explicitly stated otherwise in the CleanBC Industrial Incentive Program (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 include, but may not be limited to, the following:

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

As well, 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 method described in GGERR Bulletin 8 and provided below.

\[
E_{\text{Open Pit, Fugitive}} = GW P_{CH4} * E_{Fugitive}^{CH4} * Q_{ROM \text{ Coal}}
\]

where

\[
GW P_{CH4}
\]

is the global warming potential of methane, currently 25\(^1\)

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\(^1\) As listed in Column 4 of the Schedule to the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act.
\[ E_{\text{Fugitive}}^{\text{CH}_4} \] is 0.86 tCH4/kt Coal Mined, the emission factor for fugitive methane for open-pit coal mines in BC\(^2\).

\[ Q_{\text{ROM Coal}} \] is the amount of run-of-mine (ROM) coal in kilotonnes.

\[ E_{\text{Fugitive}}^{\text{Open Pit}} \] is fugitive emissions in tonnes of CO2-equivalent (tCO2e).

In addition to the information required in the GGERR, applicants to CIIP must also report the GHG emissions associated with purchased grid electricity and heat.

- Grid electricity emissions are quantified by multiplying the published electricity emission intensity factor for grid-connected entities \( EIF_{\text{Grid Electr.}}^{\text{Electr.}} \) for the applicable reporting year by the amount of purchased grid electricity \( Q_{\text{Electr. Purchased}}^{\text{Electr.}} \) in GWh:

\[
E_{\text{Grid Electr.}} = EIF_{\text{Grid Electr.}}^{\text{Electr.}} \times Q_{\text{Electr. Purchased}}^{\text{Electr.}}
\]

- Purchased heat emissions are quantified by multiplying a BC-specific industrial heat emission intensity factor \( EIF_{\text{Heat BC}}^{\text{Heat}} \) by the amount of purchased heat \( Q_{\text{Purchased}}^{\text{Heat}} \) in GJ:

\[
E_{\text{Purchased}}^{\text{Heat}} = EIF_{\text{Heat BC}}^{\text{Heat}} \times Q_{\text{Purchased}}^{\text{Heat}}
\]

where

\[ EIF_{\text{Heat BC}}^{\text{Heat}} \] is 0.063 tCO2e/GJ.

Therefore, the emissions for CIIP purposes are (where \( E_{\text{onsite}} \) is the reporting operation’s emissions total as required to be reported under GGIRCA and submitted in the Single Window Reporting System):

\[
E_{\text{CIIP}} = E_{\text{onsite}} + E_{\text{Grid Electr.}} + E_{\text{Purchased}}^{\text{Heat}}
\]

Purchased electricity and heat are reported under the ‘Production’ tab in the CIIP application. From the ‘Product or Service’ dropdown menu, select ‘Purchased Electricity’ or ‘Purchased Heat’ as applicable. Enter the amount of electricity purchased (in gigawatt hours) or heat purchased (in gigajoules) and the emissions associated with the purchased electricity or heat.

\(^2\) Canada NIR 2019, Part 2, Table A3-9.
The emissions associated with purchased electricity and/or heat will be automatically added to the product’s emissions totals. The applicant must not allocate emissions from purchased electricity and/or heat to the products.

**Quantification of Production**

Applicants to CIIP must report Salable Coal production $P_{S,Coal}$, in tonnes. This includes all salable coal produced during the reporting year, regardless of whether it is sold during the year or added to inventory. It does not include salable coal sold from a previous year’s production.

Production must not include any waste products.

**NOTE**: Production is reported as amount of salable coal in tonnes, whereas the quantification of $E_{Fugitive}^{Open Pit}$ requires amount of ROM coal in kilo-tonnes.

**Emission Intensity**

For the purposes of CIIP, the Emission Intensity of salable coal $EI_{S,Coal}$ will be calculated as:

$$EI_{S,Coal} = \frac{E_{CIPP}}{P_{S,Coal}}$$