

# CleanBC Industrial Incentive Program

## *Rendering and Meat Processing Sector*

### *Guidance*

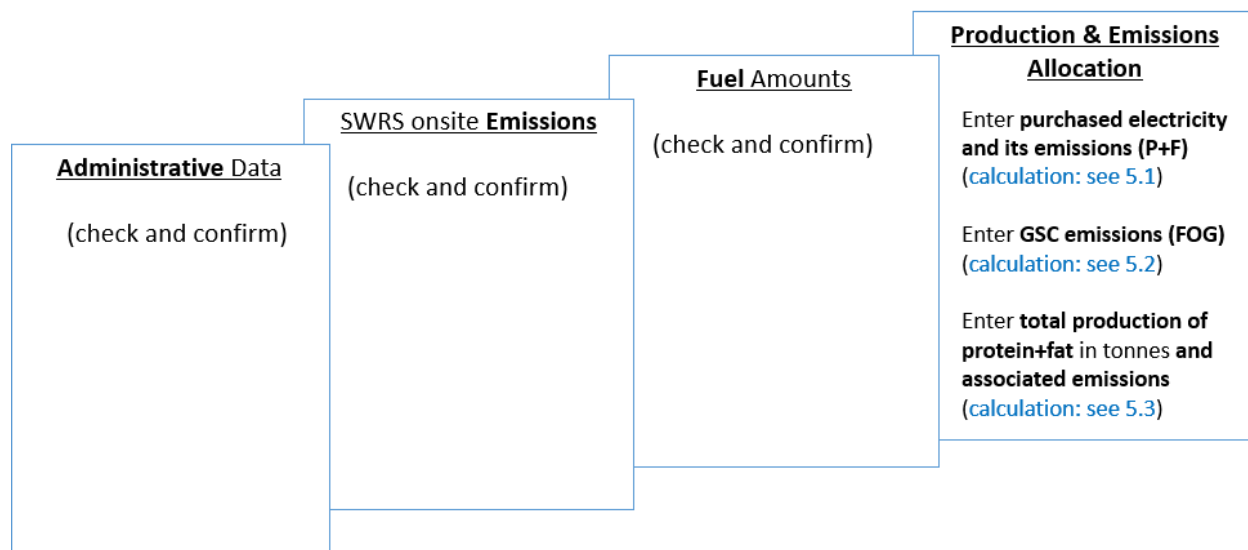
#### 1. Applicable NAICS codes:

- **NAICS – 311614: Rendering and Meat Processing**

Sub-Sector	CIIP Product
Food Manufacturing, Animal Slaughtering and Processing	Rendering and meat processing: Protein and Fat ( <b>P+F</b> )
	<b>Non-CIIP Product</b> (excluded from benchmarking)
	Fat, Oil and Grease ( <b>FOG</b> ) refining and storage

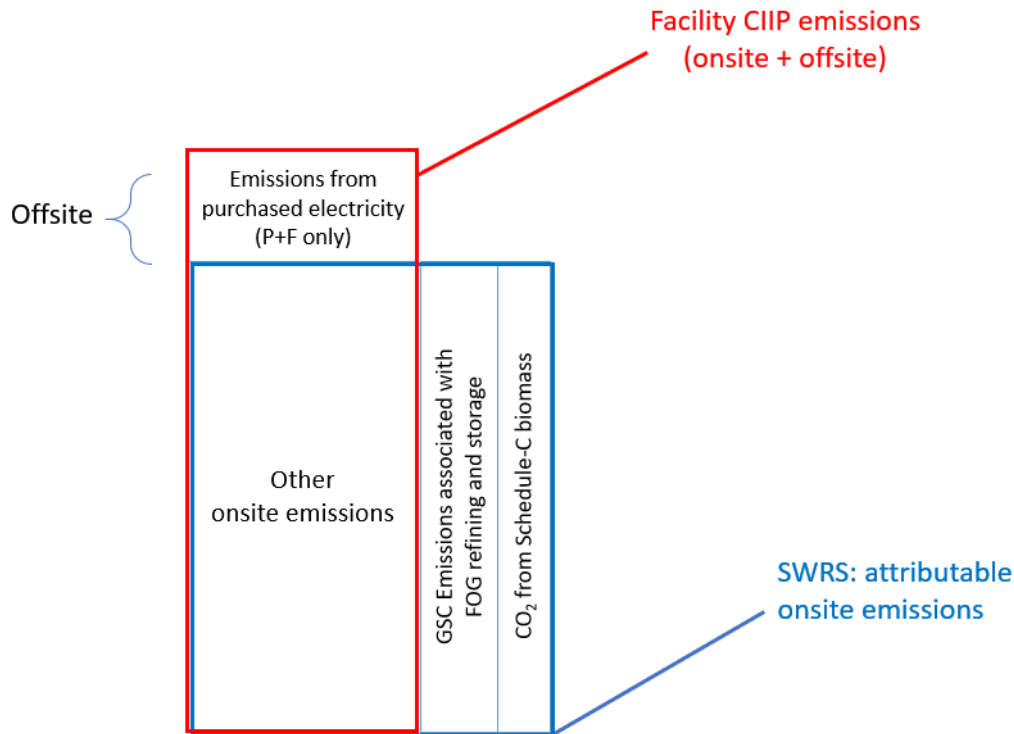
#### 2. Quick Summary – Main Steps in CIIP application

- 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)



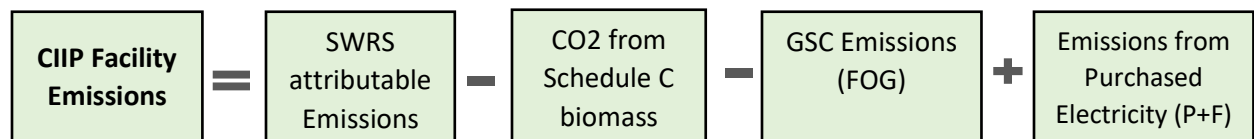
(calculation) steps are detailed in section **5. Calculation Methodologies** below.

### 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,
- Facility onsite GSC emissions for FOG refining and storage are excluded, and
- Facility offsite emissions from purchased electricity for P+F production are included.



Or, equivalently,

$$E_{Facility}^{CIIP} = E_{Attr.}^{SWRS} - E_{CO2bioC}^{SWRS} - E_{FOG}^{GSC} + E_{P+F}^{Electr.}$$

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

Facility offsite emissions associated with purchased electricity used for P+F production and facility GSC emissions associated with FOG refining and storage, must be 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. Please note that automated system messages such as application status updates will only be sent to the primary contact.
- 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 'Offsite Emissions: Purchased Electricity', then 'Excluded Product: fat, oil and grease refining and storage', and finally 'Rendering and meat processing: protein and fat', as applicable, from the 'Product or Service' dropdown menu.

**NOTE:** Fat, Oil and Grease (FOG) refining and storage, including used cooking oil and imported tallow, fat, oil, grease raw material, are not part of the benchmark for CIIP purposes.

### *Allocating CIIP Facility emissions*

CIIP facility emissions, calculated as shown in section 3, must be allocated to '**Rendering and meat processing: protein and fat**'.

Select '**Offsite Emissions: Purchased Electricity**'

- Calculate and enter purchased electricity for protein and fat production (in GWh), using the calculator (see section 5.1 below for details). Enter 0 if not applicable.
- Calculate and enter the emissions associated with purchased electricity for P+F, using the calculator (see section 5.1 below for details)

Select '**Excluded Product: fat, oil and grease refining and storage**'

- Calculate and enter the emissions associated with FOG refining and storage, using the calculator (see section 5.2 below for details)

Select '**Rendering and meat processing: protein and fat**'

- Calculate and enter total P+F production amount, in tonnes, using the calculator (see section 5.3 below for details)
- Enter the CIIP facility emissions, using the calculator (see section 5.3 below for details).

## 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 rendering reporting operations are:

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

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

### 5.1 Calculating emissions associated with purchased grid electricity for P+F

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 and allocation to P+F production, 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 total purchased electricity (in GWh).

The emissions associated with total purchased grid electricity are then automatically calculated and displayed in cell G13, in tonnes CO<sub>2</sub>e.

The calculator then automatically allocates a portion of these emissions to the non-CIIP product (FOG refining and storage) and displays the amount of electricity and its emissions associated with F+P production. For example:

### Purchased Electricity and allocation to P+F production

**INPUT** each variable listed below:

#### Purchased Electricity

	Electrical Grid:		Amount	Units
Emissions Intensity Factor of Grid	Integrated Grid	EIF <sub>El,Grid</sub>	11.5	tCO <sub>2</sub> e/GWh
Amount of electricity purchased		EL_PURCHASED	300.00	GWh
Emissions from Purchased Electricity		EL_PURCHASED	3,450.00	tCO <sub>2</sub> e
Emissions associated with electricity for FOG				
		E <sub>EL_FOG</sub>	517.50	tCO <sub>2</sub> e
Amount of purchased electricity for P+F				
		Q <sub>EL_P+F</sub>	255.00	GWh
Emissions associated with electricity for P+F				
		E <sub>EL_P+F</sub>	2,932.50	tCO <sub>2</sub> e

Enter the amount of purchased electricity for P+F and its associated emissions in the CIIP application.

The calculator uses the following methodology to determine electricity amount and emissions associated with purchased grid electricity for P+F:

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;

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

$E_{Purchased}^{Electr\cdot}$  are the emissions associated with total 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.

The electricity emissions associated with FOG refining and storage  $E_{FOG}^{Electr\cdot}$  are assumed to be 15% of the total:

$$E_{FOG}^{Electr\cdot} = E_{Purchased}^{Electr\cdot} * 0.15$$

Based on this, both the purchased electricity amount and the electricity emissions associated with P+F production are calculated to be 85% of the respective total electricity and emission amounts.

## 5.2 Calculating GSC emissions associated with FOG refining and storage

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 GSC Emissions and allocation to FOG refining and storage, in the blue cells, enter

- the total GSC (General Stationary Combustion) emissions from the SWRS report (tonnes CO<sub>2</sub>e)
- total amount of steam generated onsite (GJ)
- amount of steam used for FOG (GJ)

GSC emissions associated with FOG refining and storage are then automatically calculated and displayed, in tonnes CO<sub>2</sub>e. For example:

### GSC Emissions and allocation to FOG refining and storage

**INPUT** each variable listed below:

Input		Amount	Units
GSC emissions from SWRS report	$E_{GSC}$	30,000.00	tCO <sub>2</sub> e
Total steam generated onsite	$S_{Total}$	3,000	GJ
Steam used for FOG	$S_{FOG}$	1,000	GJ
<b>GSC Emissions associated with FOG</b>	$E_{GSC\_FOG}$	<b>10,000.00</b>	tCO <sub>2</sub> e

Enter the amount of GSC emissions associated with FOG in the CIIP application.

The calculator uses the following methodology to determine these emissions:

If

$E_{onsite}^{GSC}$  are the reporting operation's general stationary combustion emissions from the SWRS report;

$S_{Total}$  is the total quantity of the steam generated onsite;

$S_{FOG}$  is the quantity of steam used in FOG refining, unloading, storage and export;

Then

$$E_{FOG}^{GSC} = E_{onsite}^{GSC} * \left( \frac{S_{FOG}}{S_{Total}} \right)$$

### 5.3 Calculating total Protein and Fat (P+F) production and associated emissions

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 Protein and Fat (P+F) Production, in the blue cells, enter:

- Annual amount of Blood Meal (tonnes)
- Annual amount of Fish Meal (tonnes)
- Annual amount of Porcine Meal (tonnes)
- Annual amount of Poultry Meal (tonnes)
- Annual amount of Feather Meal (tonnes)
- Annual amount of Fish Oil (tonnes)
- Annual amount of Animal Fats (tonnes)
- Annual amount of Lard (tonnes)

The total production of P+F is then automatically calculated and displayed, in tonnes. For example:

#### Protein and Fat (P+F) Production

**INPUT** each variable listed below:

Do not leave blank - enter zero if needed

Input		Amount	Units
Annual amount of Blood Meal	$P^{blood}$	59,684.0	tonnes
Annual amount of Fish Meal	$P^{fish}$	100.0	tonnes
Annual amount of Porcine Meal	$P^{porcine}$	-	tonnes
Annual amount of Poultry Meal	$P^{poultry}$	100.0	tonnes
Annual amount of Feather Meal	$P^{feather}$	100.0	tonnes
Annual amount of Fish Oil	$P^{fish\ oil}$	100.0	tonnes
Annual amount of Animal Fats	$P^{fat}$	100.0	tonnes
Annual amount of Lard	$P^{lard}$	-	tonnes
<b>Total amount of "protein plus fat"</b>	$P_{P+F}$	<b>60,184.00</b>	<b>tonnes</b>

Enter the total production of P+F in the CIIP application.

The total amount of "protein plus fat" produced by the rendering process in the facility, in tonnes, is calculated using the following formula:

$$P_{P+F} = P^{Blood} + P^{Fish} + P^{Porcine} + P^{Poultry} + P^{Feather} + P^{Fish\ oil} + P^{Fat} + P^{Lard}$$

Where

$P^{Blood}$  is the annual amount of Blood Meal, in tonnes;



$P^{Fish}$  is the annual amount of Fish Meal, in tonnes;

$P^{Porcine}$  is the annual amount of Porcine Meal, in tonnes;

$P^{Poultry}$  is the annual amount of Poultry Meal, in tonnes;

$P^{Feather}$  is the annual amount of Feather Meal, in tonnes;

$P^{Fish\ oil}$  is the annual amount of Fish Oil, in tonnes;

$P^{Fat}$  is the annual amount of Animal Fats, in tonnes;

$P^{Lard}$  is the annual amount of Lard, in tonnes;

### Calculating CIIP Facility emissions

In the calculator, in the section 'CIIP Facility Emissions', in the blue cells:

- Enter SWRS attributable onsite emissions, including from Schedule C biomass (tonnes CO<sub>2</sub>e)
- Enter CO<sub>2</sub> emissions from Schedule C biomass (tonnes CO<sub>2</sub>e)

The calculator then displays the CIIP Facility emissions. For example:

### **CIIP Facility Emissions**

#### **INPUT emissions where applicable:**

Do not leave blank - enter zero if needed

	Emissions	Units
SWRS Attributable Emissions	40,000.00	tCO <sub>2</sub> e
-- CO <sub>2</sub> emissions from Schedule C biomass	100.00	tCO <sub>2</sub> e
-- GSC Emissions associated with FOG	10,000.00	tCO <sub>2</sub> e
+ Emissions from Purchased Electricity for P+F	2,473.50	tCO <sub>2</sub> e
<b>CIIP Facility Emissions</b>	<b>32,373.50</b>	<b>tCO<sub>2</sub>e</b>

Enter the CIIP Facility Emissions in the CIIP application.