environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Public User Guide of
South African Greenhouse Gas Emissions Reporting System (SAGERS)

Department of Environmental Affairs
And
National Treasury

Version: 1.0

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PMT Approval

Role	Approver Name	Action	Date

Revision History

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1.0	10/21/2019	Tracy Ji		Initial Draft

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1 Introduction

1.1 Background

The Republic of South Africa ratified the United Nations Framework on Convention on Climate Change (UNFCCC) and is therefore required to undertake several projects related to climate change. The objective of the UNFCCC is to stabilize Greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous human-induced interference with the climate system. The ability of South Africa to achieve this objective is dependent on the accurate knowledge of emissions trends and on our collective ability to alter these trends.

In response to Decision 17/CP.8, 3 of the UNFCCC and the requirements of Section 6.7 of the Climate Change White Paper, DEFF has drafted National GHG Reporting Regulations to encourage the reporting of national GHG emissions annually. The objective of these regulations is to introduce a single national reporting framework for the reporting and dissemination of information related to GHG emissions to:

- to enable the Department to collect, collate and publish GHG emissions data and information in an effective and efficient manner,
- for South Africa to meet its obligations on international reporting requirements under the United Framework Convention on Climate Change and other international programs,
- to fulfil section 6.7 of the National Climate Change Response that requires GHG emissions inventories that are accurate, complete and up-to-date,
- to inform government policy formulation and the South African general public; and
- to avoid duplication of similar reporting requirements in South Africa.

1.2 Document Purpose

The document is intended to provide instructions to public users for using the SAGERS Public Portal together with user cases, mock-up screens to better illustrate system design from user point of view.

1.3 Definitions, Acronyms, and Abbreviations

This subsection provides the definitions of all terms, acronyms, and abbreviations required to properly interpret the User Guide Document.

Acronym	
Acronym	**Definition**
SAGERS	South African Greenhouse Gas Emissions Reporting System
GHG	Greenhouse Gas
DEFF	South Africa Department of Environmental Affairs
SARS	South Africa Revenue Service
National Treasury	South Africa National Treasury
Data Provider	Any person as classified in regulation 4 and shall include (a) its holding company or corporation or legal entity, registered in South Africa in accordance with the Laws of South Africa; (b) all its subsidiaries and legally held operations, including joint ventures and partnerships where it has a controlling interest, or is nominated as the responsible entity for the purpose of reporting under these Regulations; (c) all facilities generally over which it has control, which are not part of another data provider as provided for in these Regulations;
Activity Data	Data on the amount of fuels or materials consumed or produced by a process as relevant for the calculation -based monitoring methodology, expressed in joules, mass in tones, or for gases as volume in normal cubic meters, as appropriate;
Tier	Method used for determining greenhouse gas emissions as required by the "IPCC Guidelines for National Greenhouse Gas Inventories (2006)

Acronym	
Acronym	**Definition**
	• Tier 1 method: Default IPCC emission factors available in the 2006 IPCC Guidelines are used to calculate emissions from activity data; • Tier 2 method: Country specific emission factors published in the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by industry are used to calculate emissions from activity data; • Tier 3 method: Emission models, material carbon balances and continuous emission measurements in the Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry available on the DEFF website (www.environment.gov.za) are used.

2 System Overview

The SAGERS is a web-based application which enables public users to incorporate with law to register data provider with DEFF, update DEFF on any registration information changes and prepare and submits annual GHG emission reports to DEFF to review.

2.1 Summary of System Actors and Roles

The table below lists all the potential actors and roles within SAGERS public portal.

Actors and Roles	
Actors	**Role Description**
ACO	- Register Data Provider -
Preparer/Consultant	- Enter or Revise Emission Data for relevant source - Check and Edit Emission Data completeness for relevant source
Viewer	-
Other	-

2.2 General Guidance on SAGERS Public Portal

2.2.1 Accessing SAGERS Public Portal

To access the SAGERS Public Portal Web application, public users can either enter from the link on South Africa SAGERS landing page or open any Internet Browser application and directly enter the website URL.

- SAGERS Landing Page:
  https://ghgreporting-public.environment.gov.za/GHGLanding/SAGERSHome.html

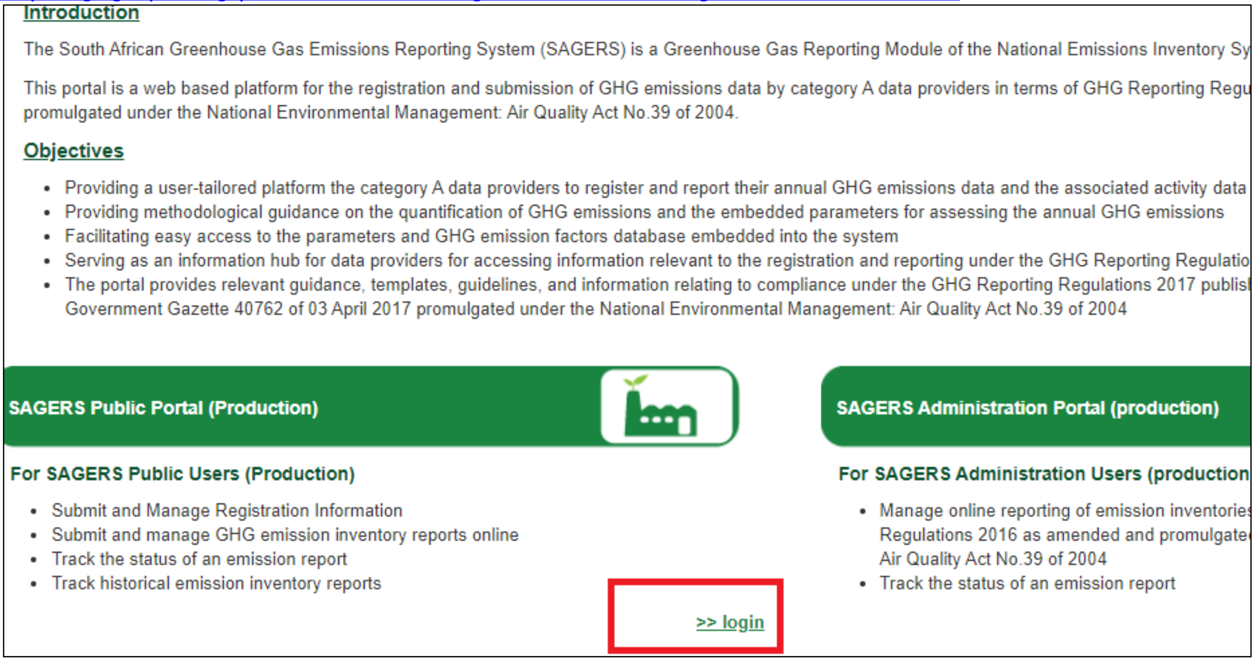


Figure 1 SAGERS Landing Page

- SAGERS Public Portal User **Training Site:**
  https://ghgreporting-public-uat.environment.gov.za
- SAGERS Public Portal User **Official Production Site:**
  https://ghgreporting-public.environment.gov.za

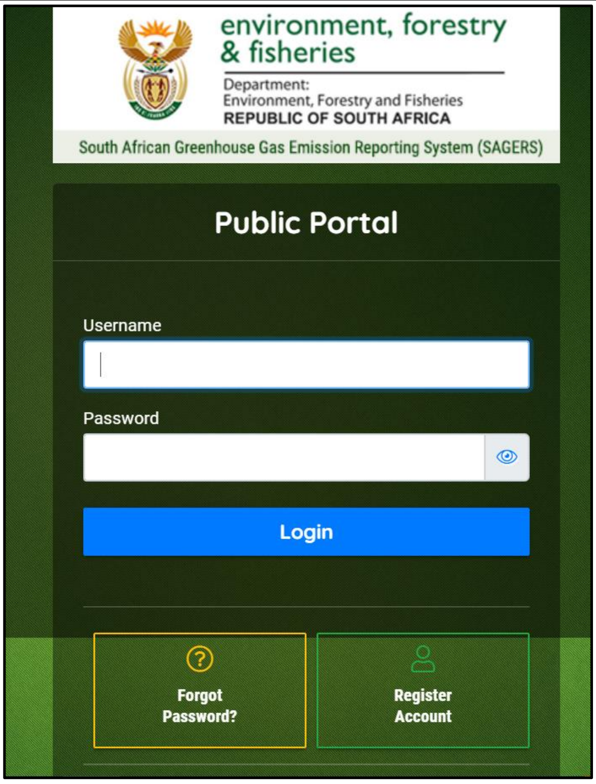


Figure 3 SAGERS Public Portal Log in Page

2.2.2 Information and Navigation Features

Left Navigation Panel

All the SAGERS System Modules can be accessed at any time from the left navigation panel. This allows the users to jump from a section of pages to another section of pages.
And users are also able to close the left panel to have bigger view of current module.

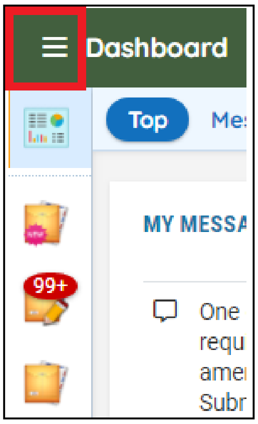


Figure 2 to open left panel

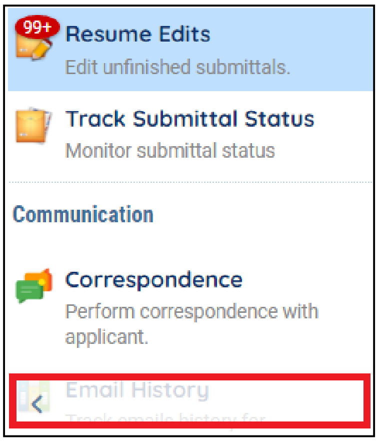


Figure 3 to close left panel

System Requirements

To ensure that all of the features of SAGERS System are available, a user is suggested to use the Google **Chrome web browser**. The performance of the SAGERS System will vary based on the computers' internet connection speed, CPU, Operating System, and available memory. The following minimum system configuration is recommended:

- Pentium II processor or higher
- Microsoft Windowns 2000 or higher
- 256 MB of RAM or higher

3 Public Portal Dashboard

Once log into public user account, public users will be looking at the dashboard of each account. The dashboard consists of multiple web parts.

- Submittal Summary
  Public users are able to read summary information of their own submitted submission records. By clicking on each number, public users will be directed to the page where detailed submission records show.
  - **Revision Required:**

This status refers to the scenario that DEFF has reviewed your submitted submission and there are information needs to be rectified on the form or more information is required to be provided hence it was sent back to you.

- **Denied:**
  This status refers to the scenario that DEFF has reviewed your submitted submission and made decision that your submission due to certain reasons is not accepted and there is no further action can be taken on this submission at your side.
- **Approved:**
- This status refers to the scenario that DEFF has reviewed your submitted submission and made decision that your submission is accepted and there is no further action needs to be taken at your side.

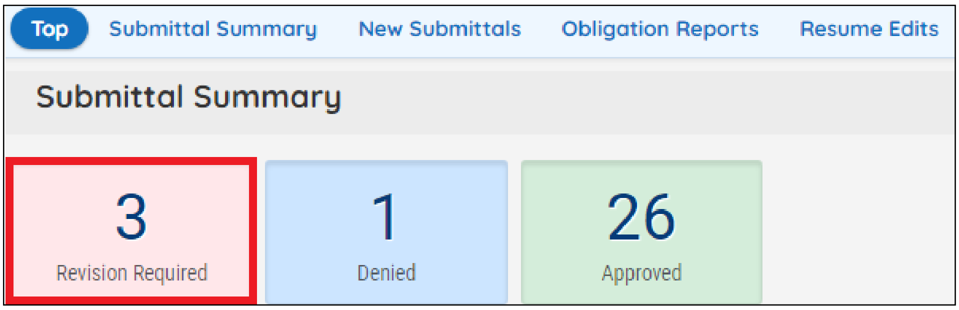
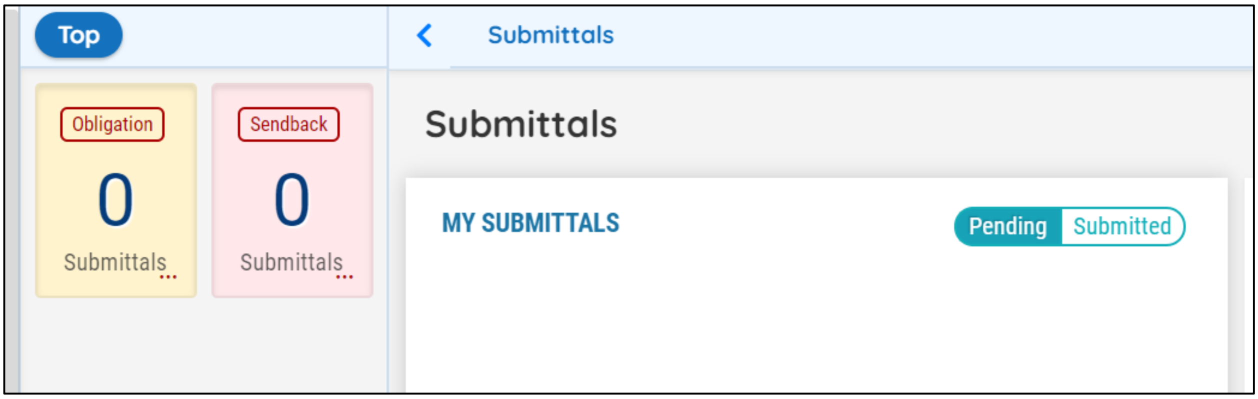


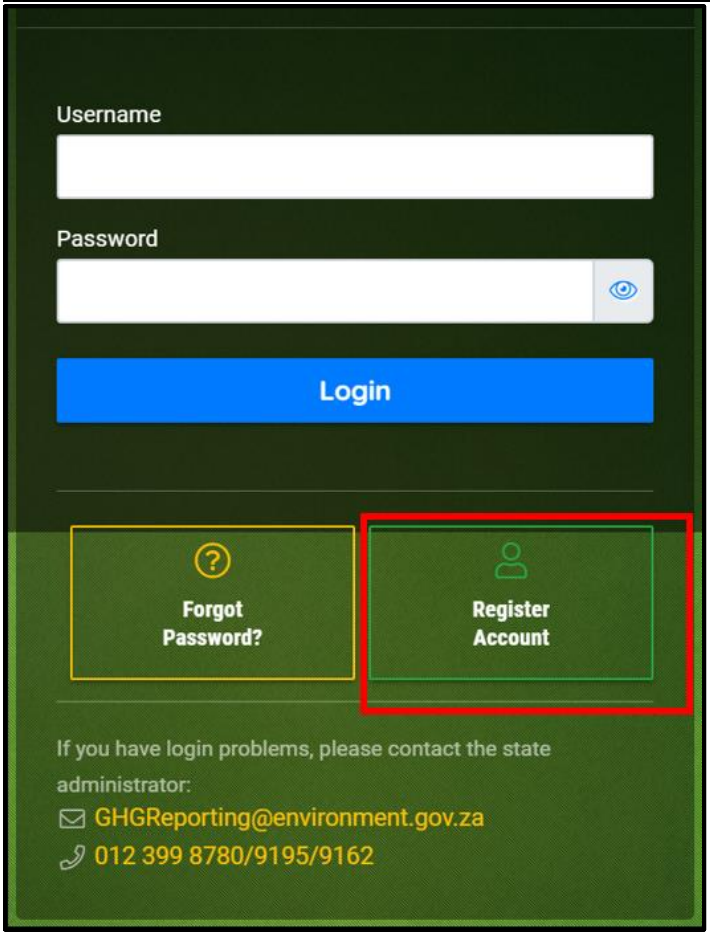
Figure 4 View submission records of different status



4 Public User Account Management

4.1 Public User Account Creation Process

To initiate any activities with SAGERS Public Portal, it requires public users to log in with a registered SAGERS public account.
Public users are able to start the account creation process by clicking on the “Register Account” button on the Public Portal log in page.



gFigure 5 Register Account

1) The first step of registering account is public users are required to input all necessary basic information.
   - The value in User Name field will auto populate based on the input Legal First Name and Legal Last Name. There is possibility that the User Name has already been taken by other public users. In this case, public users need to modify the populated user name to ensure its uniqueness in the SAGERS system.
   - The email address ties to each public users account also needs to be unique.

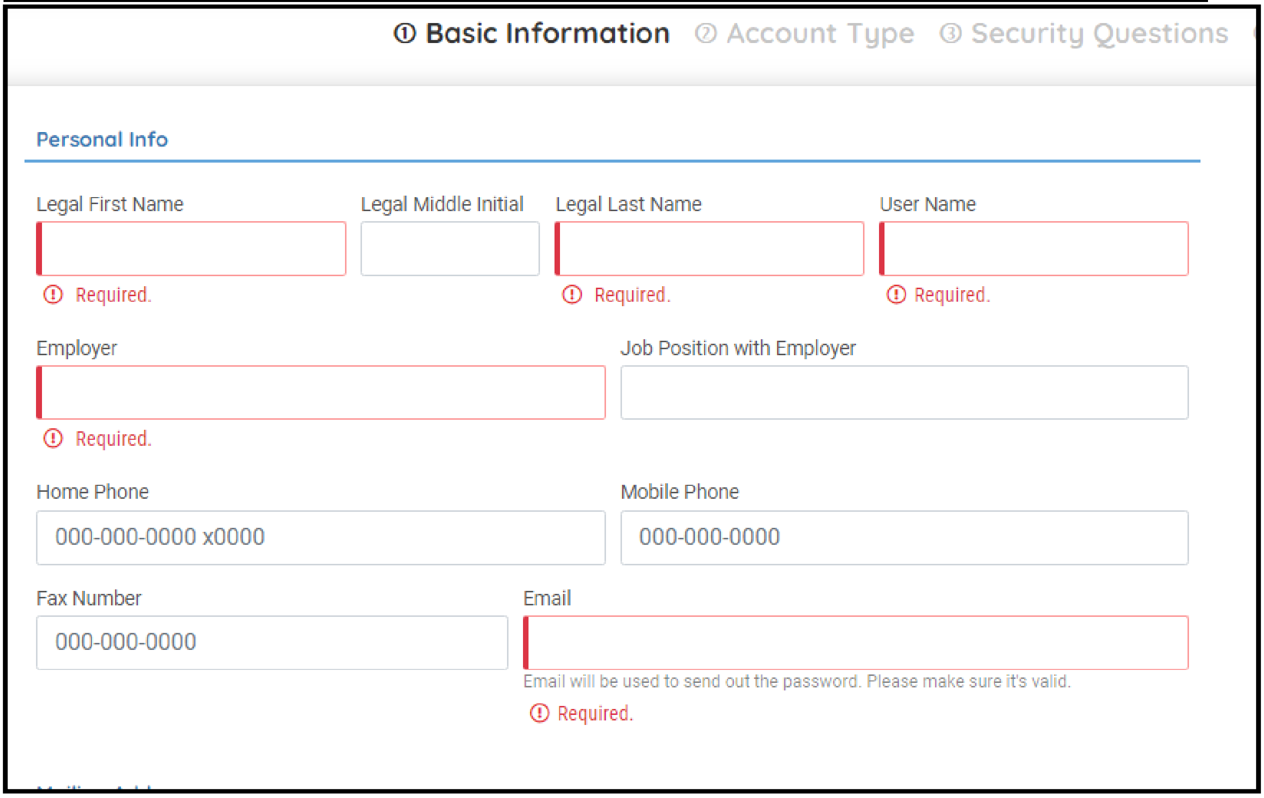


Figure 6 Required Basic Information for Creating Public User Account

2) After inputting all required basic information, public users are able to click on "Next" button to continue to select desired account type. Each public user account can only be associated with one account type. The provided account types are:

- **ACO:**
  The Accounting Officer (ACO) account type is responsible for certifying and submitting submittals on behalf of his/her Data Provider. An ACO can also assign ECO/Consultants to help prepare the submittals for each facility that the ECOs/Consultants are assigned to.
- **ECO/Consultant:**
  The Emission Control Officer (ECO)/Consultant account type is nominated by the ACO to help prepare submittals for each specific facility. The ECOs/Consultants can only prepare submittals and cannot submit them.
- **Viewer:**
  The Viewer account type is nominated by Data Provider ACOs to view facility information.
- **Other:**
  The Other account type is granted access to submit "Request Approval for Country-Specific emission factor" forms for any facility, even those these account type users are not associated with any Organizations or their facilities.

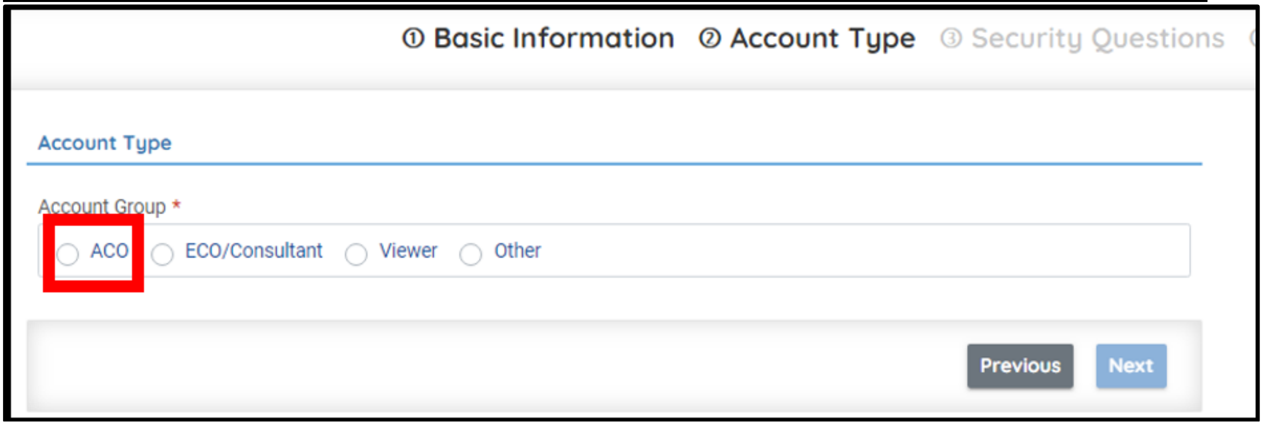
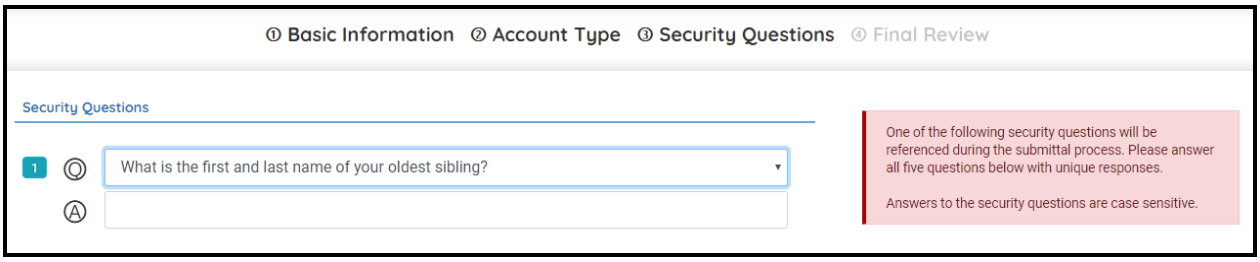


Figure 7: Available Public Account Type

3) After picking up the account type, public users are required to create answers to 5 selected security questions. The answer will be used as identity verification purpose after public users log in their accounts to conduct certain actions, such as to submit annual GHG emission report.



x5

Figure 8 Available Security Questions

4) After completing previous 3 steps, public users are able to review the information supplied. If there is any error, public users are able to click on "Previous" button to go back to the page to revise the information. Once all of the information is confirmed, then the public users should check the "I'm not a robot" anti-spam check and click on "Register" button.

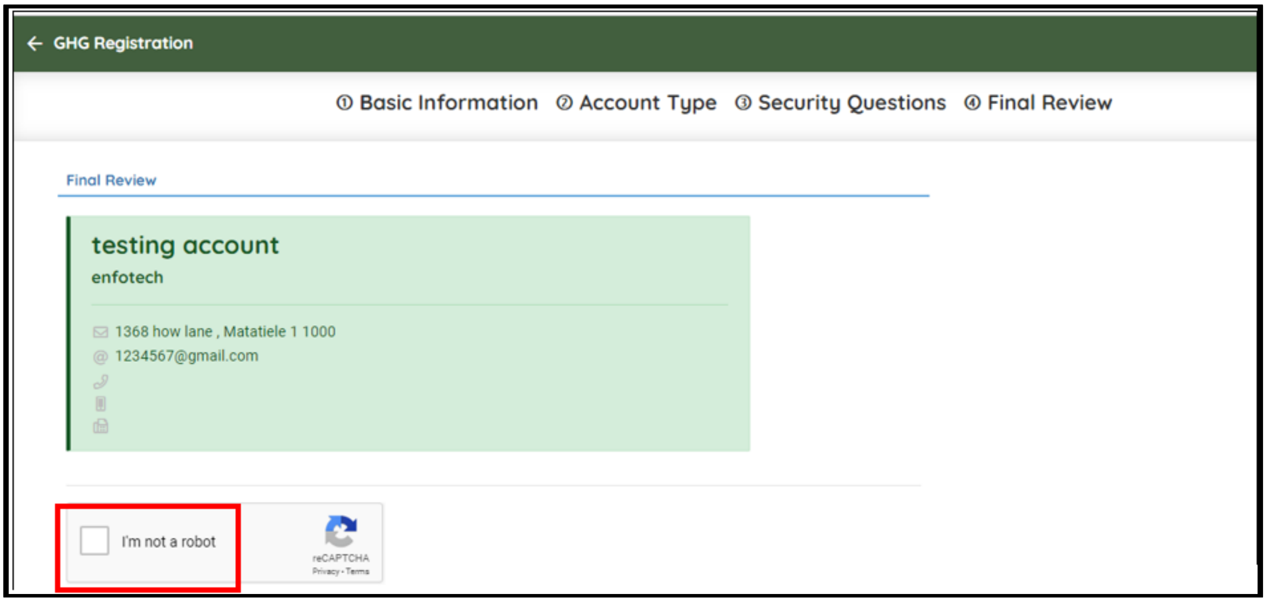


Figure 9 Registration Information Review Page

5) The system will return a Registration Successful message if the public users account is successfully created.

- An email contained temporary password and temporary pin will be sent to the email address used in step1.

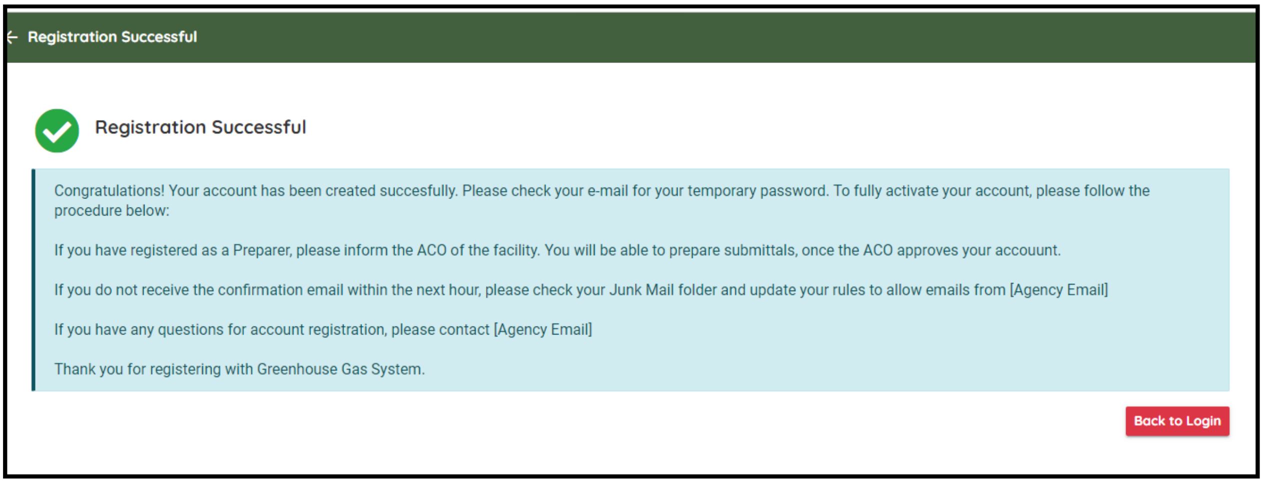


Figure 10 Registration Successful Message

4.2 Public User Log in Process

4.2.1 First -Time Log-in Users

For first-time log-in users, log onto registered account with self-created username and assigned temporary password. And then you will be required to create your permanent password and pin to replace the temporary records.

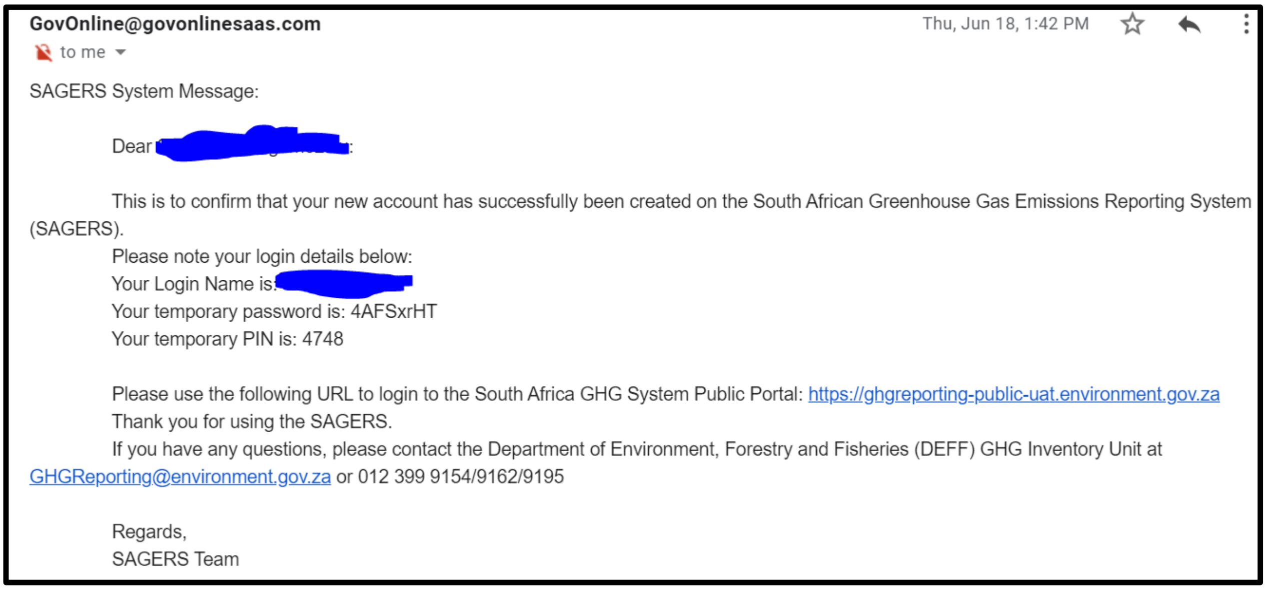


Figure 11 Registration Email Sample

4.3 Account Information Management

4.3.1 Forget Password

When public users forget their log in password, click on the “Forget Password” button on Public Portal log on page. And input the email address associated with public user account and an email contained with temporary password will be sent to this email address if this email address exists in

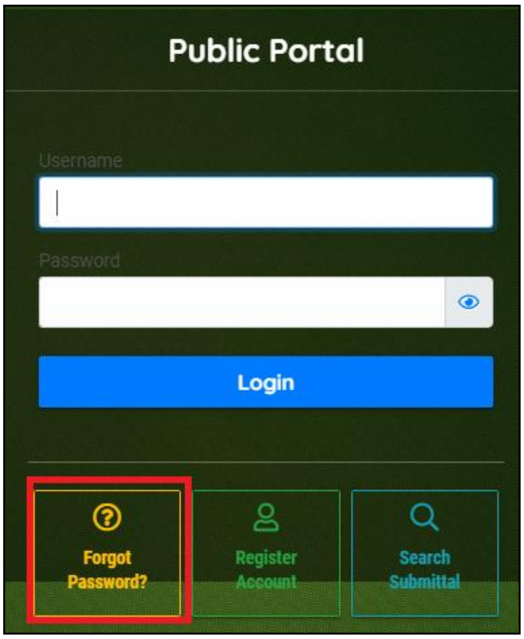


Figure 12 Forget Password on log in page

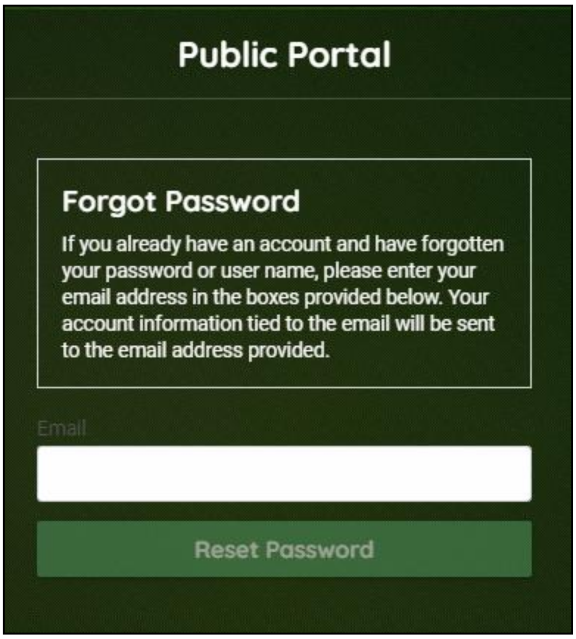


Figure 13 Associated Email Address

system.

4.3.2 Change Password and Pin Number

Public users are able to change password and pin number associated with own account in My Account Module. Under Password/Pin tab, public users are able to directly enter the new password or new pin.

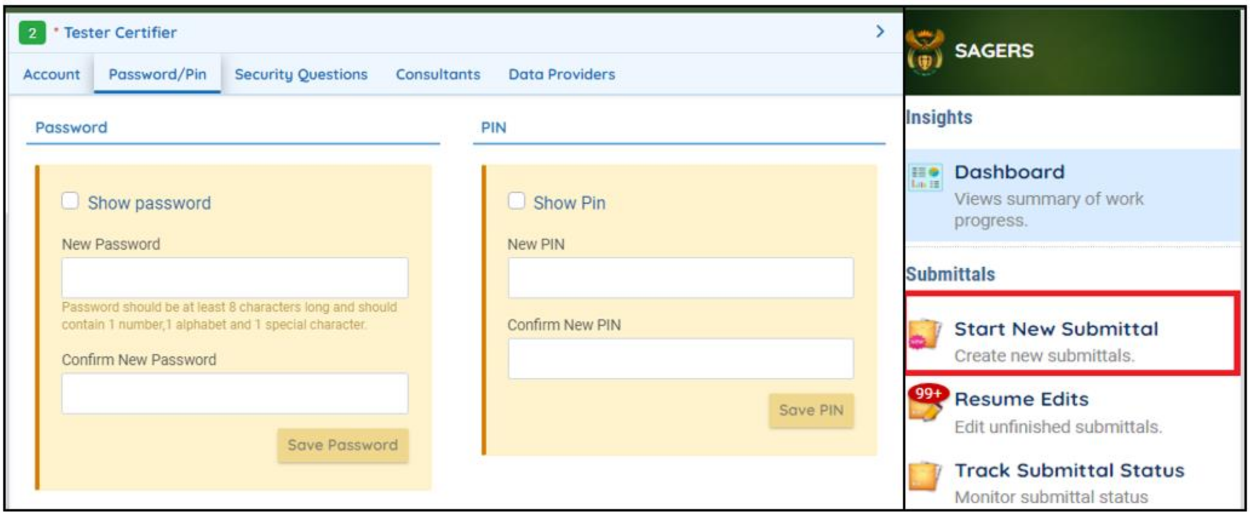


Figure 14 Create New Password and Pin

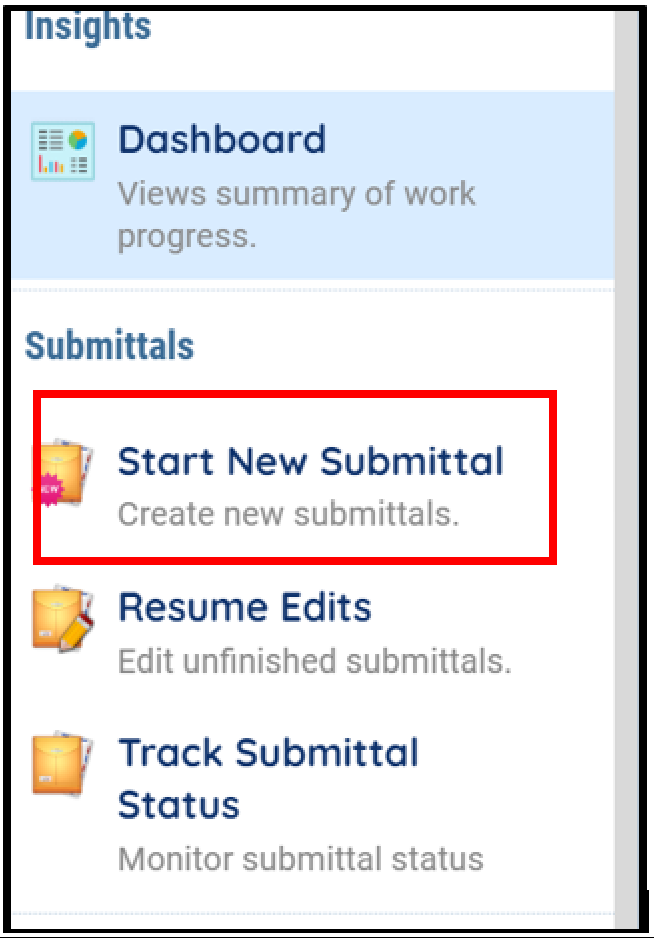
5 Data Provider Registration Process

In order to submit annual GHG emission reports, data providers have been registered in SAGERS as the pre-condition to submit reports. To register a data provider, it requires public users to submit a "Register Data Provider" form to DEFF to review. DEFF may approve, deny or require more information for a submitted form.

5.1 Start a New Data Provider Registration Form

Public users can initiate a "Register Data Provider" form Start New Submittal module from left panel. After entering Start New Submittal module, public users should click on Register New Data Provider Icon and then system will launch a new Register New Data Provider form.

Figure 15 start a new submittal



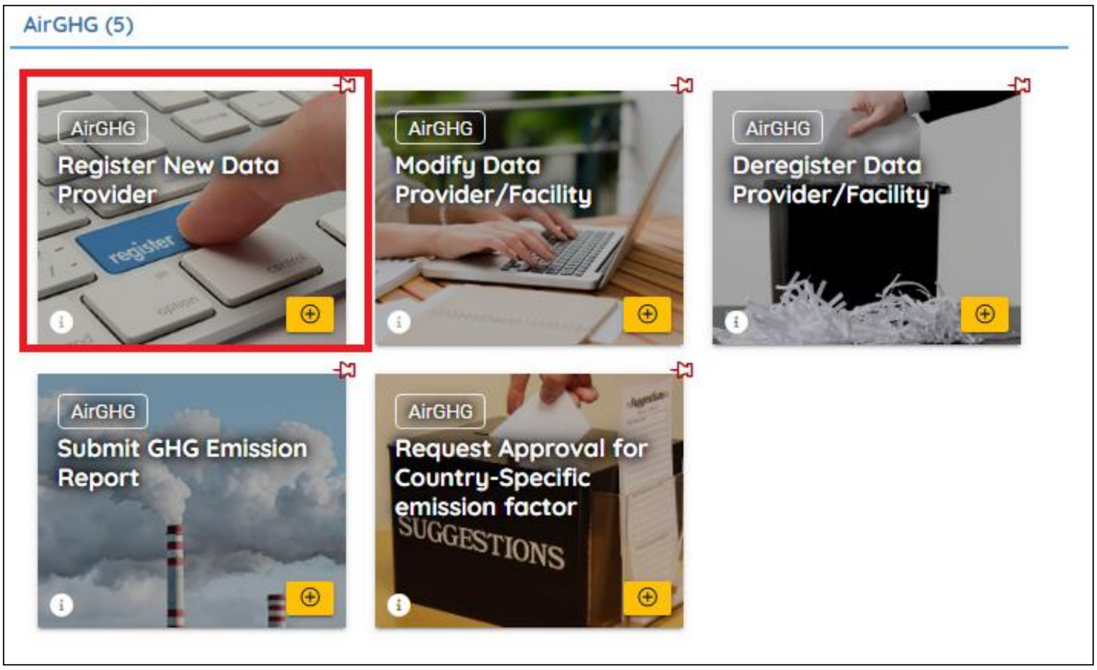


Figure 16 Register New Data Provider Form

5.2 Prepare and Submit New Data Provider Registration Form

In order to pass the validation check and submit the "Register New Data Provider" form, public users need to complete required information on Data Provider Information, Facility Association and Attachment tabs if certain conditions are met.

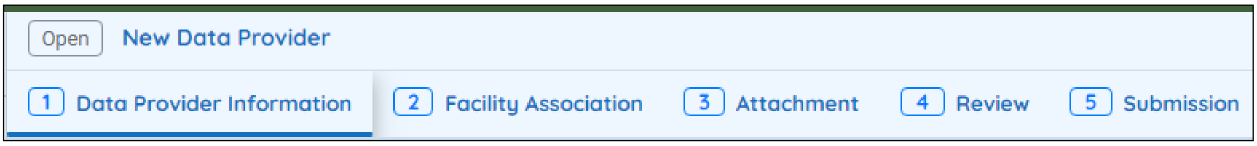


Figure 17 Different Tabs of Register New Data Provider Form

Following sections provide only instructions to the steps that are commonly considered as "difficulty" to first time users.

5.2.1 Data Provider Information Tab

On Data Provider Information tab, public users are required to input necessary data provider information**.**

- **Step 1: Select the suitable data provider source for your situation.**

Create a New Data Provider

This option should be selected when this data provider is never been created in SAGERS system and no GHG Data Provider ID has ever been issued.

This option **doesn't apply for following scenarios.** If your situation follows any of them, please select "Link Data Provider" option and refer to section 5.2.1.2 for further instructions:

1) The data provider has previously been registered with DEFF on paper form.
2) The data provider has been registered by previous owners with DEFF and you are current the new owner.

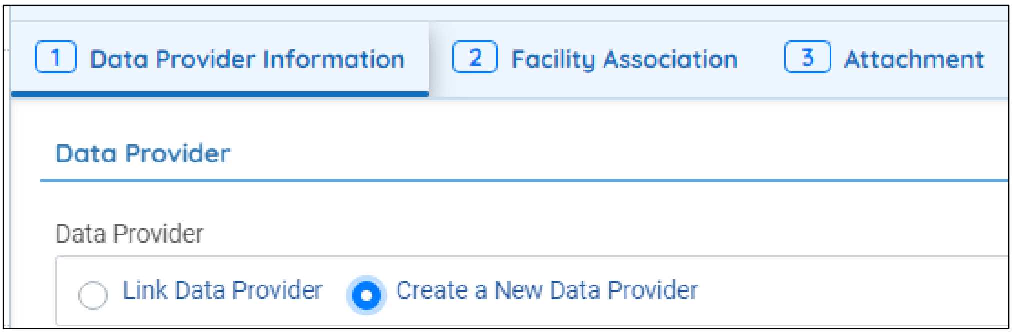


Figure 18 Create a New Data Provider Option

Link Data Provider

Public users should select this option if your situation fits any of the following scenarios:

1) The data provider has previously been registered with DEFF on paper form.
2) The data provider has been registered by previous owners with DEFF and you are current the new owner.

When "Link Data Provider" option is selected, public users are required to search by existing data provided by inputting Transfer Code. By searching the correct Transfer Code, system will display only one matching data provider record and public users can select the record.

- Transfer Code: The Transfer Code is a unique code created by SAGERS for one data provider/facility which is only informed to relevant users via emails sent out by SAGERS system.

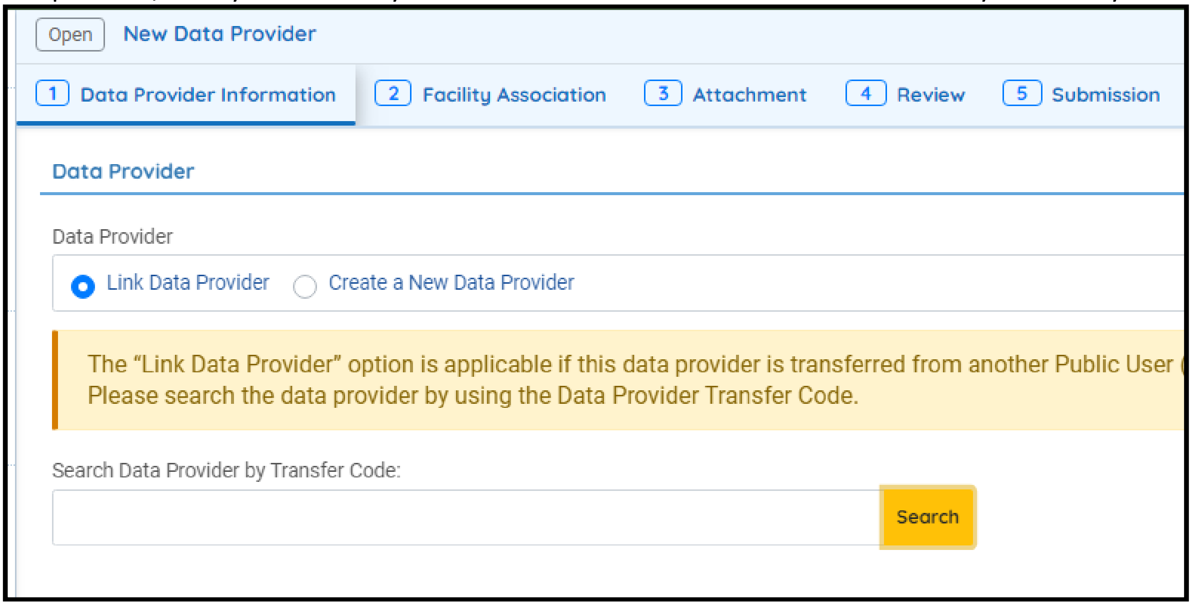


Figure 19 Link Data Provider Option

- **Step 2: Complete required data provider information**

Public users are required to fill in correct information on all fields marked as required on Data Provider Information tab.

- **ACO:**
  The ACO of data provider could be the owner or responsible official of this data provider.
- **Contact Person:**
  The contact person of data provider could be the person who can be reached by DEFF during most of the business time. This person can be different than the owner/ACO of this data provider, such as front desk representative of this data provider.

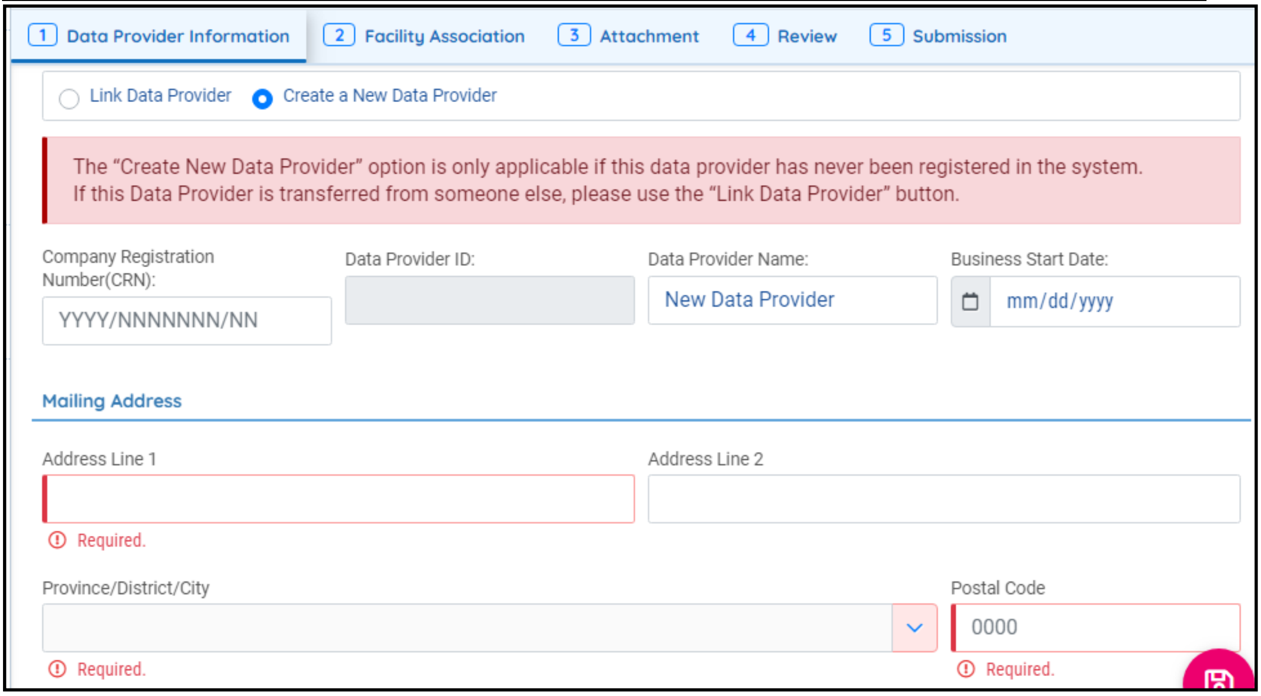


Figure 20 Required Information on Data Provider Information Tab

5.2.2 Facility Association Tab

On Facility Association tab, public users are required to input facility and activity information associated with this data provider.

- **<u>Step 1: Select suitable facility source for your situation</u>**

Create New Facility

This option should be selected when this facility is never been created in SAGERS system and no GHG Facility ID has ever been issued.
This option **doesn't apply for following scenarios.** If your situation follows any of them, please select "Link Facility" option and refer to section 5.2.2.3 for further instructions:

1) The facility has previously been registered with DEFF on paper form.
2) The facility has been registered by previous owners with DEFF and you are current the new owner.

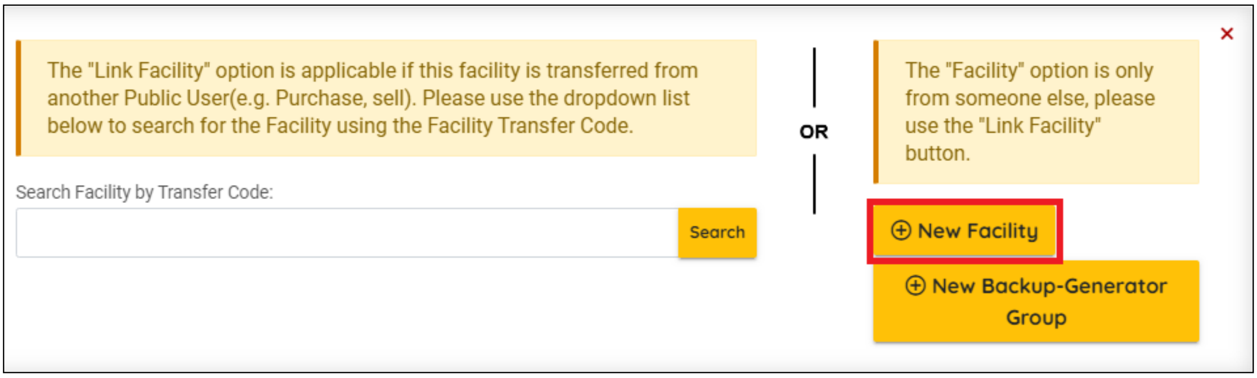


Figure 21 Create New Facility Option

Create New Backup- Generator Group

This option should only be selected when following conditions are met, **otherwise there may be possibilities your submission will be sent back or denied by DEFF.**

1) The facilities have never been created in SAGERS system and no GHG Facility ID has ever been issued.
2) The facilities are backup-generator group.

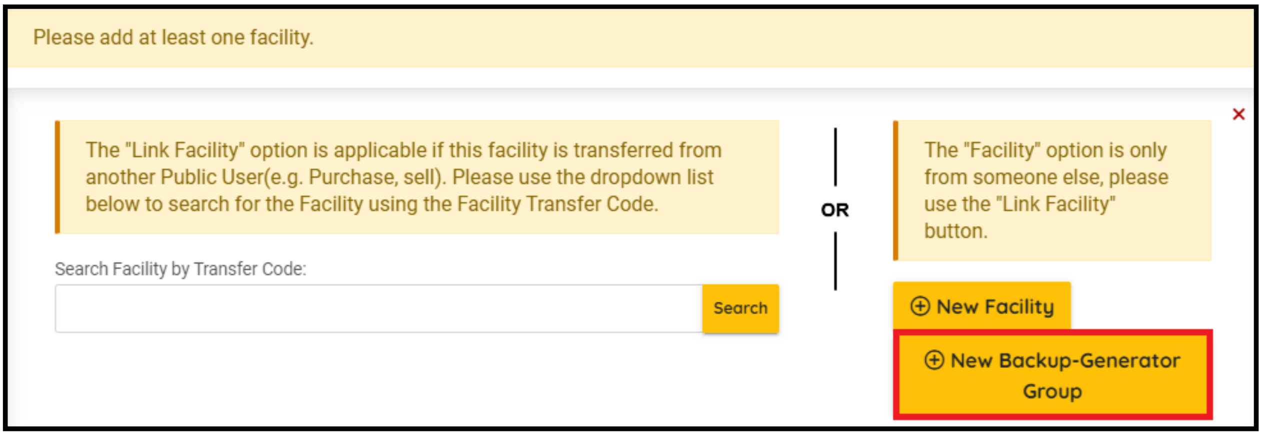


Figure 22 Create New Backup-Generator Group

Link Facilities

Public users should select this option if your situation fits any of the following scenarios:

3) The facility has previously been registered with DEFF on paper form.
4) The facility has been registered by previous owners with DEFF and you are current the new owner.

Public users are required to search by existing data provided by inputting Transfer Code. By searching the correct Transfer Code, system will display only one matching FACILITY record and public users can select the record.

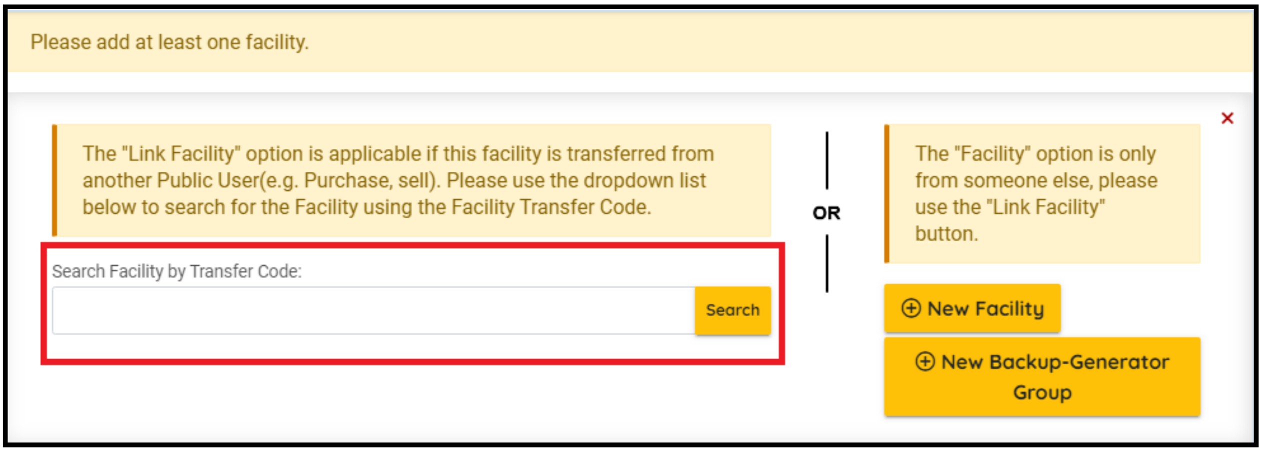


Figure 23 Search Facility by Transfer Code Option

Link/ Add More Facilities

If there is more than one facility/facility group needs to be created or linked, public users can achieve this purpose by clicking the “up arrow” icon show in following screenshot to close current facility/facility group page and then the “Add or Link Facility” button will be visible.

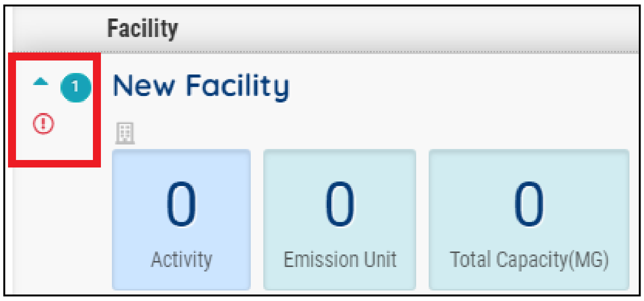


Figure 24 Close current facility/facility group

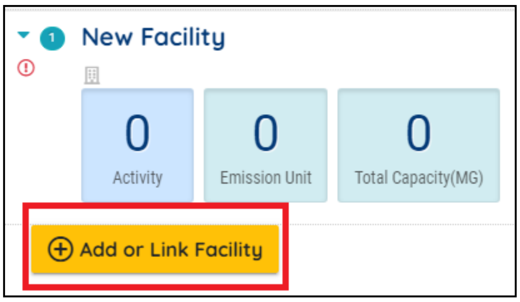


Figure 25 Add/Link more facilities

- **Step 2: Fill in required facility information**

For each facility/facility group, public users need to complete information including basic facility information, contact, activity and activity attribute information.

Activity Information

Public users need to be select all applicable IPCC codes for current facility. For each IPCC code, there is different activity attribute information required to be filled. Public users are able to add more IPCC codes by click on "+" button shown in following screenshot. Each IPCC code can only be selected once under one facility.

Figure 26 Add more IPCC codes on activity section

Public users are able to upload any supporting documents in Attachment tab which they believe are helpful for DEFF to approving their submission.
Based on DEFF's requirements, public users must upload supporting documents for following scenarios to elaborate the detailed information:
1) If "New Backup-Generator" is selected for any of the facilities/ facility groups.
2) If the "Number of Devices" is more than 1 for any of the emission devices.

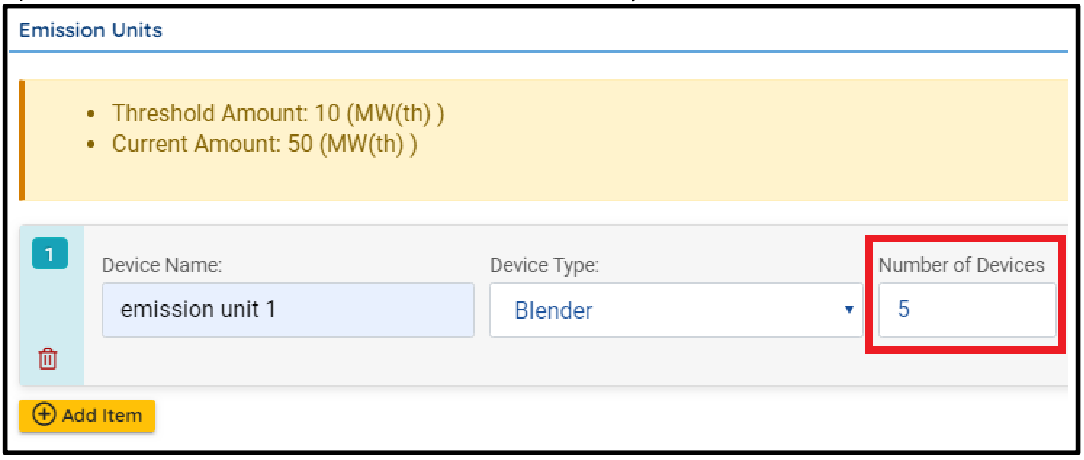
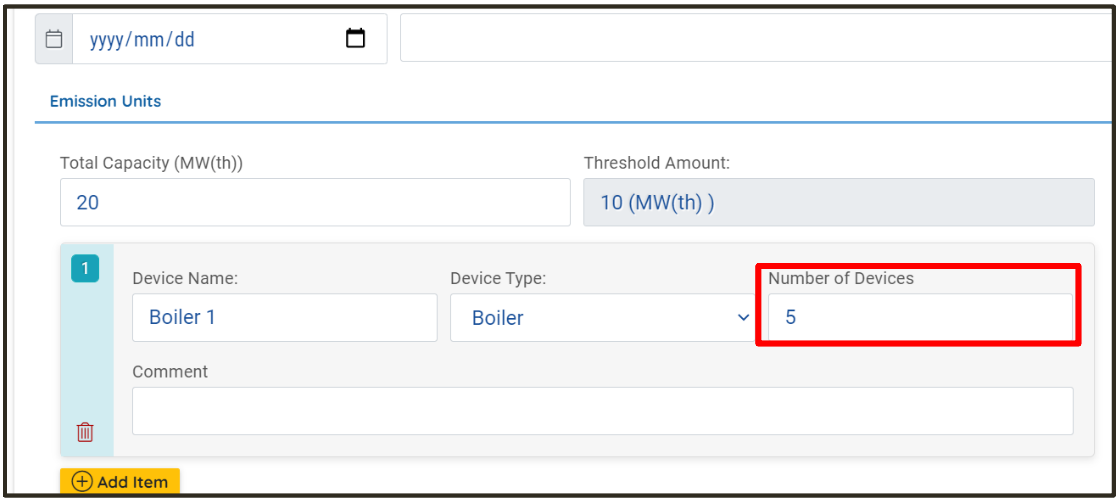


Figure 27 Number of devices for emission units

If you register more than 1 boiler in SAGERS (as shown in Figure 29 above), the system will require you to attach a spreadsheet that includes the list of all the boilers you have.



The template to include these boilers is found on the landing page under Templates:

https://ghgreporting-public.environment.gov.za/GHGLanding/Docs/Standby%20generators.xlsx

The template also allows the data providers to calculate their installed boiler capacity, by following steps detailed in the template.

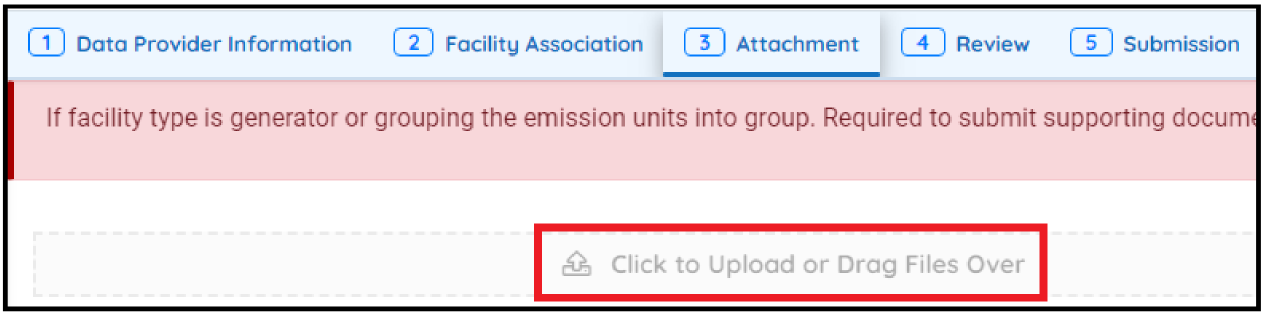


Figure 28 Upload supporting documents to one submission

5.2.3 Review Completed Form and Reporting Threshold

On Register New Data Provider Form, SAGERS has provided a left panel overview. Public users are able to view a dynamic data provider hierarchy chart based on supplied information.
Below Data Provider Overview, public users are also able to check if the assigned activity amount has met the reporting threshold.

- When the activity amount is smaller than the reporting threshold, then public users **are not obligated** to report related information to DEFF.
- When the activity amount is greater than the reporting threshold, then public users **are obligated** to report related information to DEFF.

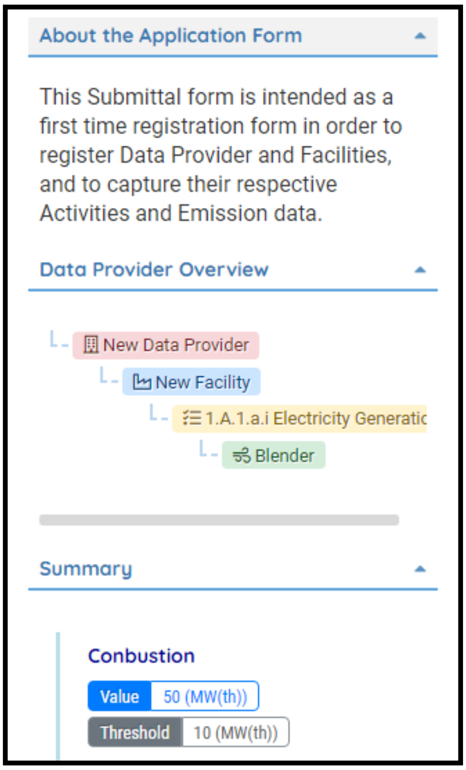


Figure 29 Left Side Review Panel

On Review Tab, public users are able to check if all required fields are fully completed. The red "X" sign implies there is some missing information on corresponding form.
By clicking the PDF icon, public users are also able to print out the hard copy of completed online form.

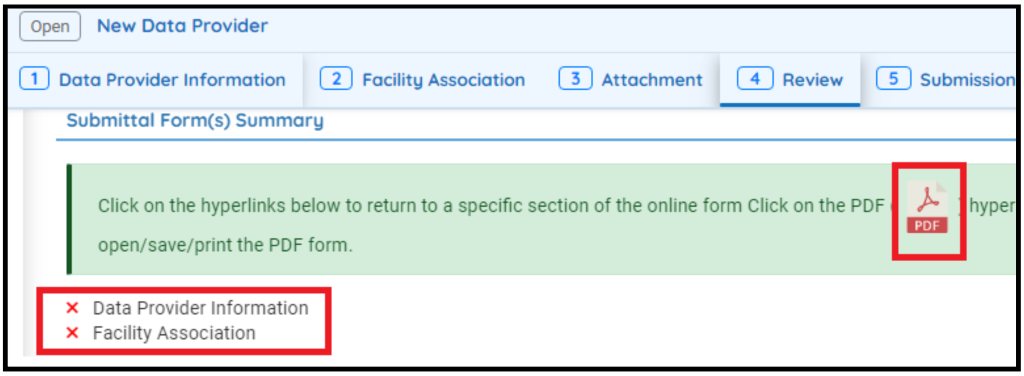


Figure 30 Submission Review Tab

5.2.4 Submit Online Form

Public users can submit by clicking "Submit" button on Submission Tab. In order to activate the "submit" button, the submitter needs to complete following actions:

1) Complete the certification sections
2) Provide correct answer to all five security questions
3) Input PIN Number from your email (you received this email upon confirmation of your ACO account registration)

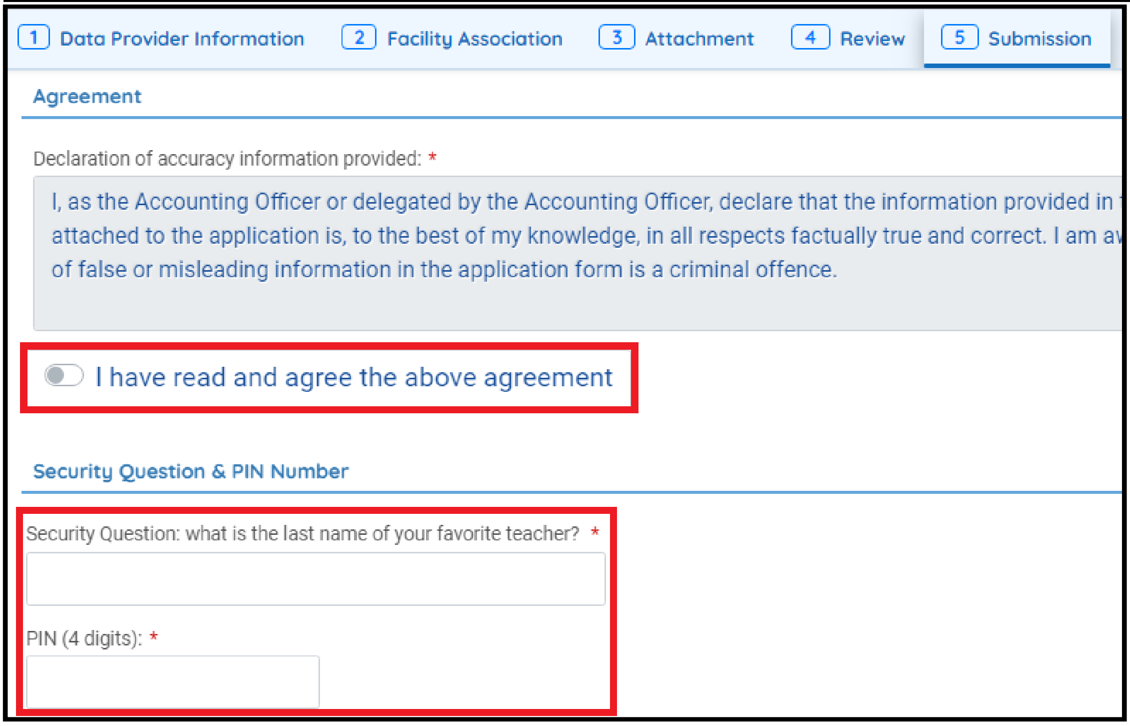


Figure 31 Certification Section on Submission Tab

After submitting the online form, if the system pops up a confirmation email then it indicates the submission is successfully submitted.

5.3 Continue Unfinished Submittal

At any time during online form preparation, public users can save the work by clicking on the hard disk button. In that way, public users are able to continue with unfinished submittal in any future time.

If submission is saved successfully, then a "Save Successfully" message will show up and at the same time a submission ID will be generated and displayed on the top right side of the submission **button**

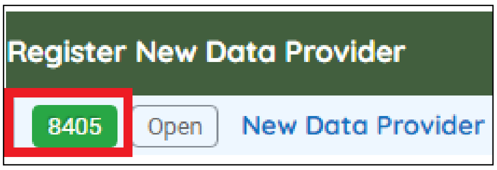


Figure 32 Generated submission ID

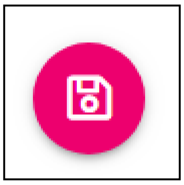


Figure 33 save

Public users are able to access to this submittal by searching using submission ID as Keywords in Resume Edits module.

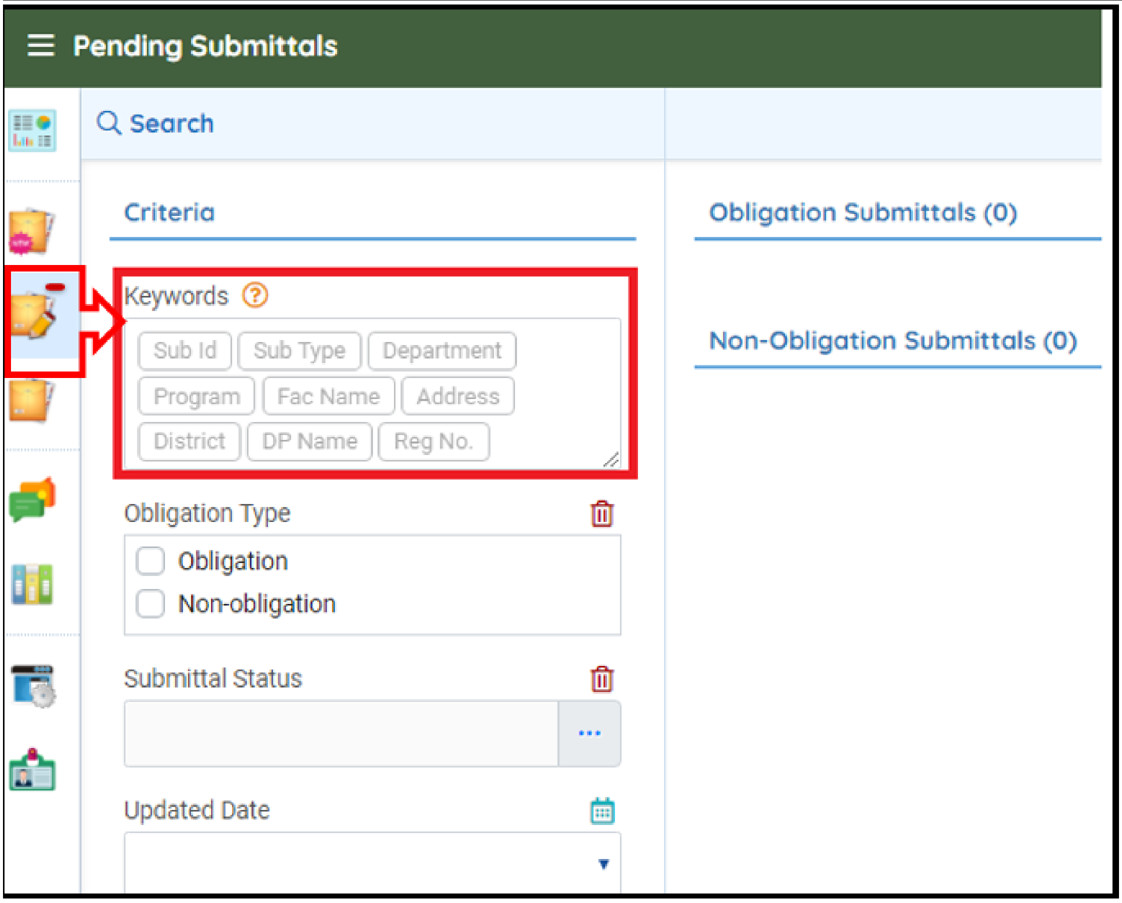


Figure 34 Keyword Search

5.4 Delete Unfinished Submittal

Public users are able to delete unwanted Registered Data Provider/ Facility submittal when it is not submitted yet .r. To delete this submittal, go to Resume Edits module and click on the Trash Bin icon.

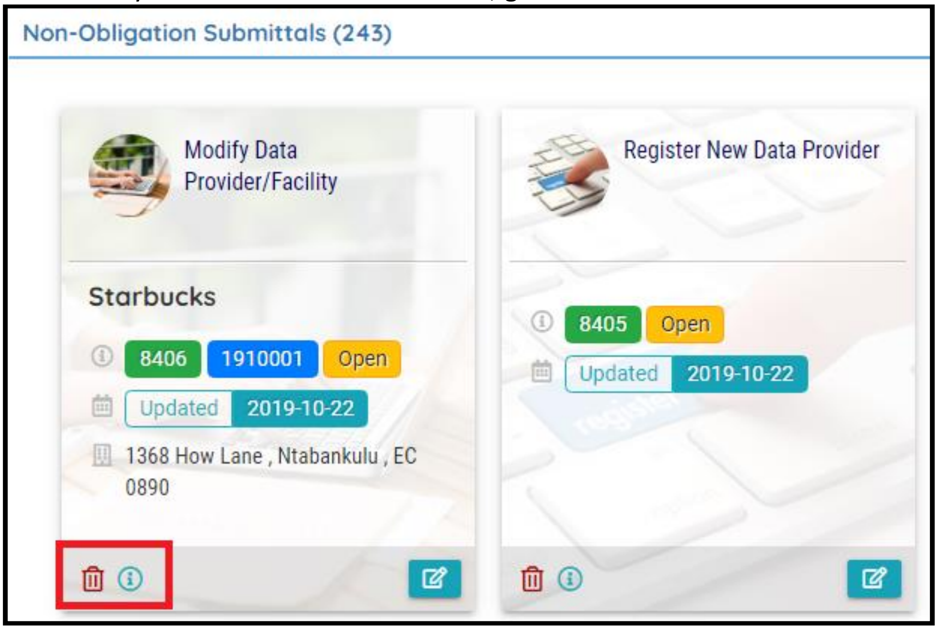


Figure 35 Delete unwanted submittal

5.5 Track Submitted Submittal

After public users have submitted their form, DEFF will take control of the submission and public users cannot modify the information on submitted form in the interim unless DEFF sends the submission back to public users for revision.
Public users are able to track the status of submitted Register New Data Provider form in Track Submittal Status module to monitor if there is any review progress updated from DEFF authority side.

Figure 36 Track Submittal Status

6 Data Provider/Facility Modification Process

Public users must DEFF about any new changes happening on registered data provider information within 30 days. DEFF will responded afterwards accordingly that they will either approve the change or deny the change. Public users are able to notify DEFF by submitting the "Modify Data Provider/Facility" form if following changes occurs:

- Any changes on basic data provider information, such as name, address, etc.,
- Any changes on basic facility information, such as name, address, etc.;
- Any additional facilities are added to original data provider;
- Any additional activities (IPCC) are added to data provider;
- Any additional emission units are added to data provider;
- Any associated emission units are removed from data provider

6.1 Start a New Modify Data Provider/Facility Form

Modify Data Provider/Facility form could be reached from Start New Submittal module. Please refer to section 5.1 for detailed instructions.

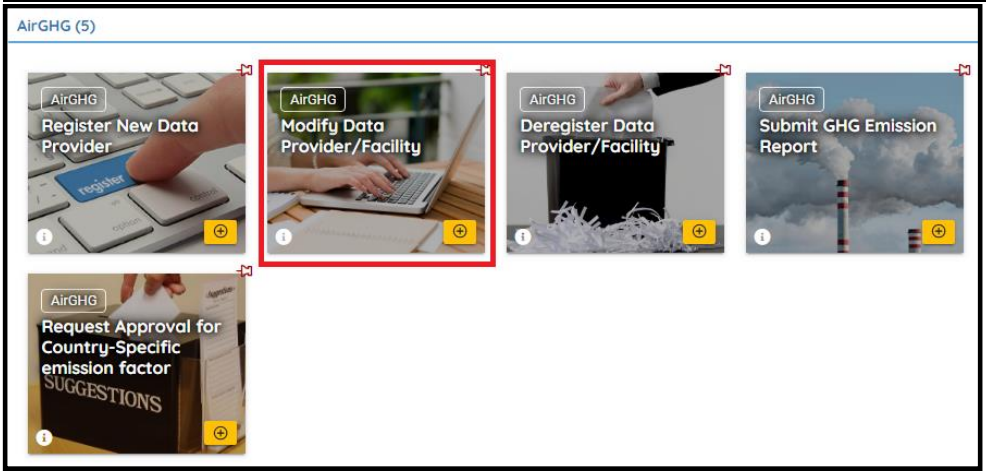


Figure 37 Modify Data Provider/Facility form

6.2 Prepare and Submit Modify Data Provider/Facility Form

Following sections provide only instructions to the steps that are commonly considered as "difficult" to first time users.

Step1: Pick associated data provider

Public users need to select the data provider which they need to modify from Data Provider dropdown field. In this field system will display active data provider records which are registered under current public users account with SAGERS. After selecting one data provider, system will automatically populate current approved registration information of this data provider.

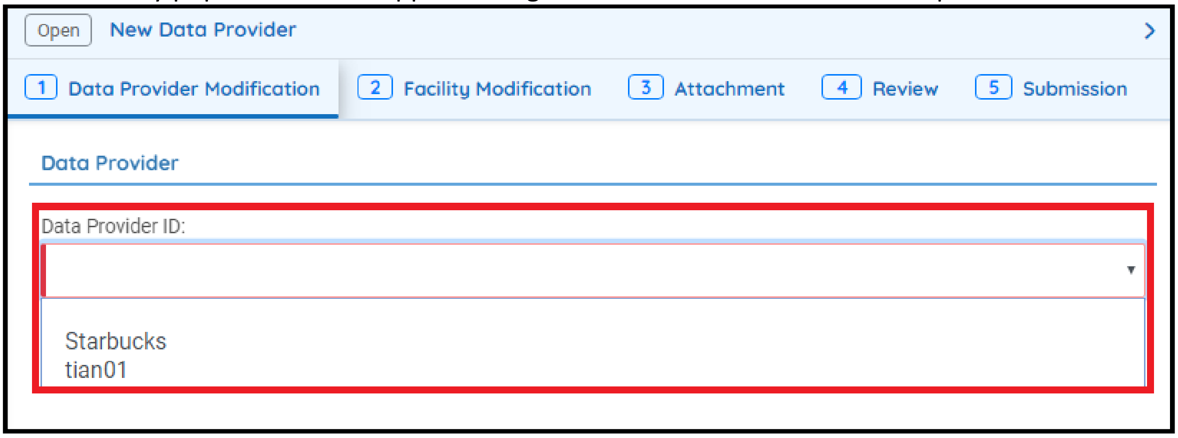


Figure 38 Pick associated data provider

Step 2 Modify Registration Information

Public users are able to directly update the demonstrated information of current data provider based on populated records.

Step3 Review and Submit Online Form

Public users can following the same procedure to review completed form and submit it. Please refer to section 5.2.3 and section 5.2.4 for further instructions

6.3 Continued Unfinished Submittal

Public users can also save their work and come back to continue with the previously saved Modify Data Provider/Facility submittal next time when they log in their user account. Please refer to section 5.3 for future instructions.

6.4 Delete Unfinished Submittal

Public users are able to delete unwanted Modify Data Provider/Facility submittal when it is not submitted yet. Please refer to section 5.4 for more detailed instructions.

6.5 Track Submitted Submittals.

Public users are able to track the review status of submitted Modify Data Provider/Facility form under Track Submittal Status module. Please refer to section 5.4 for more detailed instruction.

7 Data Provider Deregistration Process

Public users must notify DEFF about any new changes happening on registered data provider information within 30 days. DEFF will responded afterwards accordingly that they will either approve the change or deny the change. Public users are able to notify DEFF by submitting the “Deregister Data Provider/Facility” form if following changes occurs:

- Ownership transfer/Termination at data provider level including all associated facilities, activities(IPCC)
- Ownership transfer/Termination at facility level including associated activities (IPCC code)
- Termination at activity level (IPCC code)

7.1 Start a New Deregister Data Provider/Facility Form

Deregister Data Provider/Facility form could be reached from Start New Submittal module. Please refer to section 5.1 for detailed instructions.

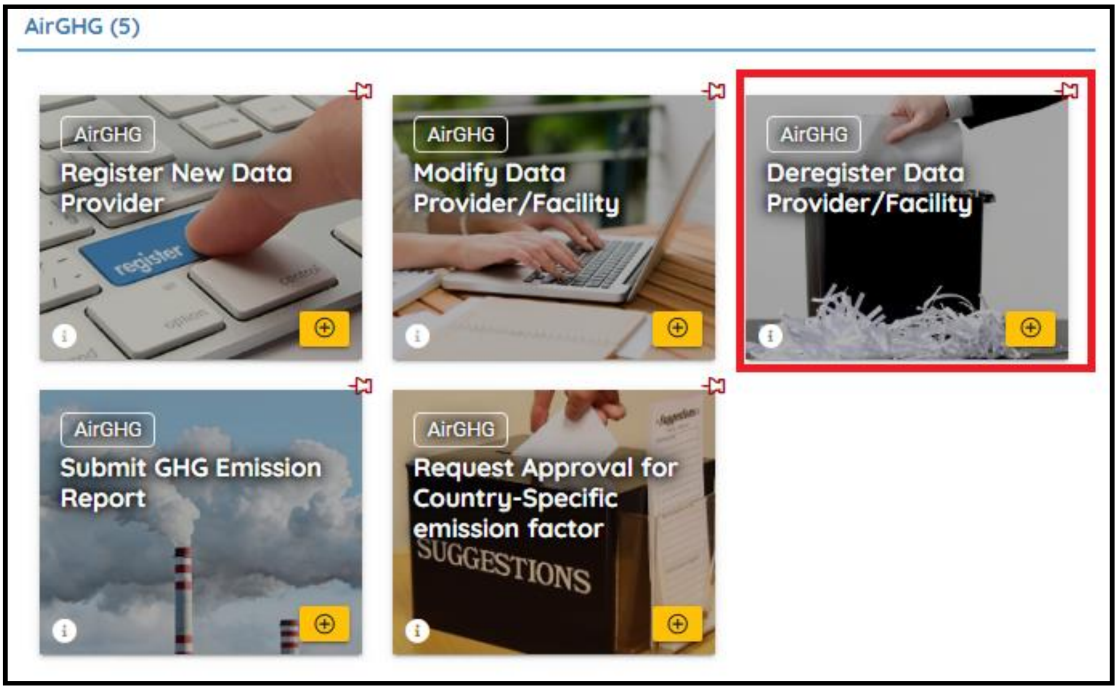


Figure 39 Deregister data provider/facility

7.2 Prepare and Submit Deregister Data Provider/Facility Form

Following sections provide only instructions to the steps that are commonly considered as “difficult” to first time users.

<u>Step 1 Select the correct data provider</u>

Public users need to select the correct data provider which or partially they need to dissociate responsibilities from, such as specific facilities or activities (IPCC code).
In the data provider dropdown field system will display active data provider records which are registered under current public users account with SAGERS. After selecting one data provider, system will automatically populate current approved registration information of this data provider.

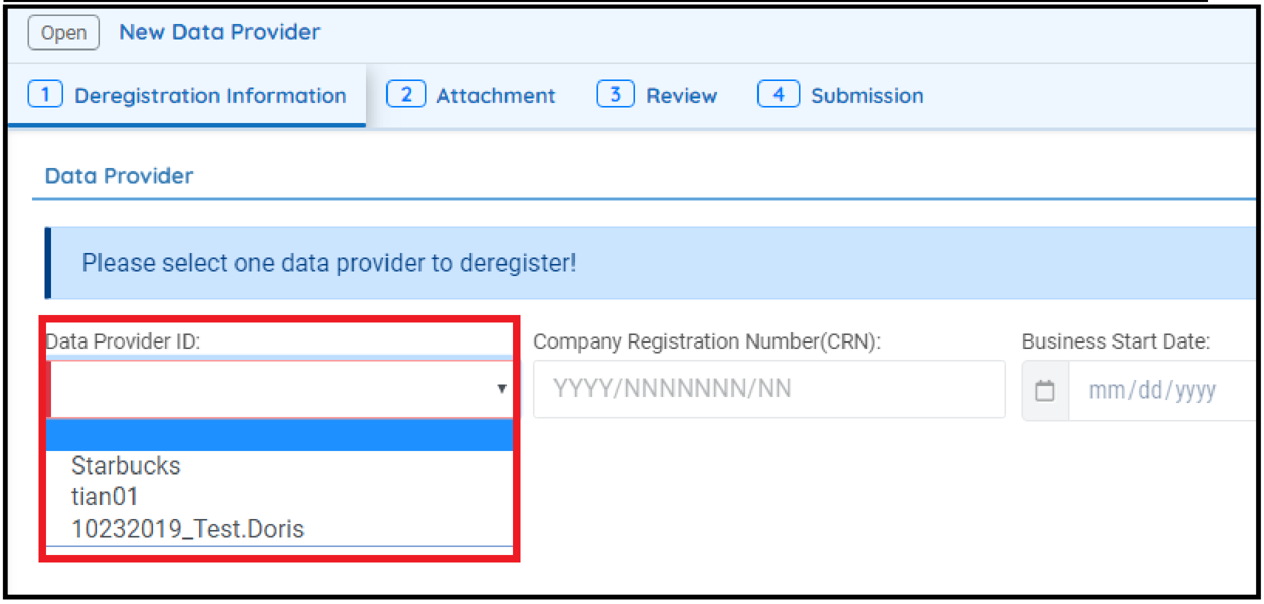


Figure 40 Active Data Provider

Step 2 Specify deregistration type

Public users need to specify the most proper deregistration type

- **Data Provider**:
  When public users selects this option, it means they request to dissociate full responsibilities from this data provider including all associated facilities and activities.

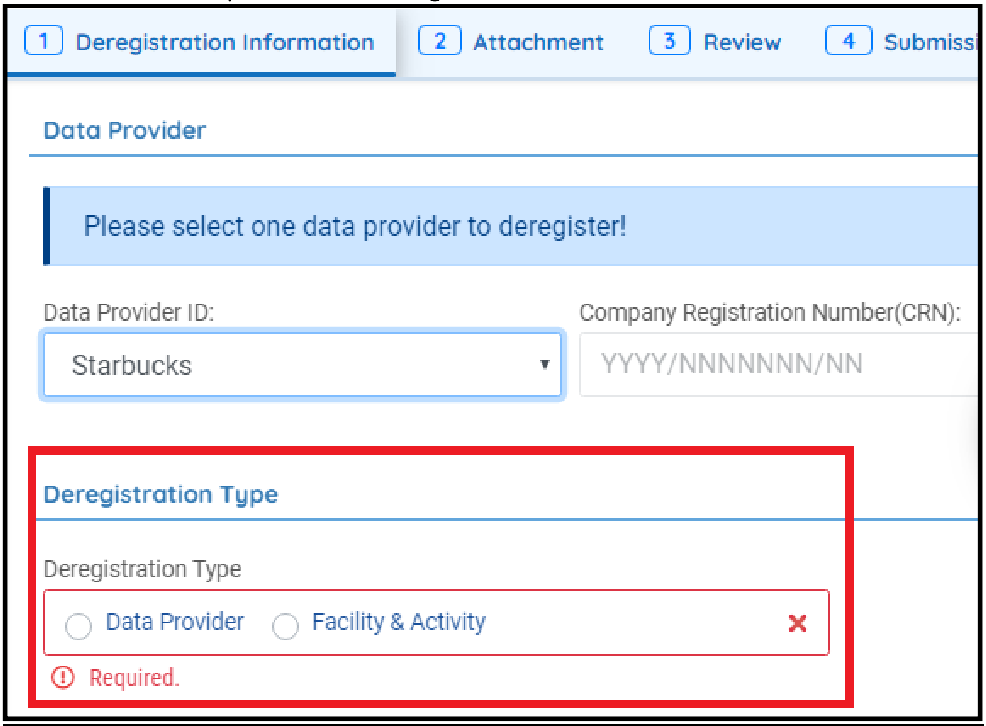


Figure 41 Deregistration Type

- **Facility & Activity**

When public users select this option, it represents you request to dissociate partial responsibilities from the selected facility/activity, however you will be still responsible for the Facility/Activity under that selected data provider.

  - **Deregister Facility**
    When public user's selects to deregister the entire facility, then all associated activities will by default get deregistered as well when DEFF approves the request.

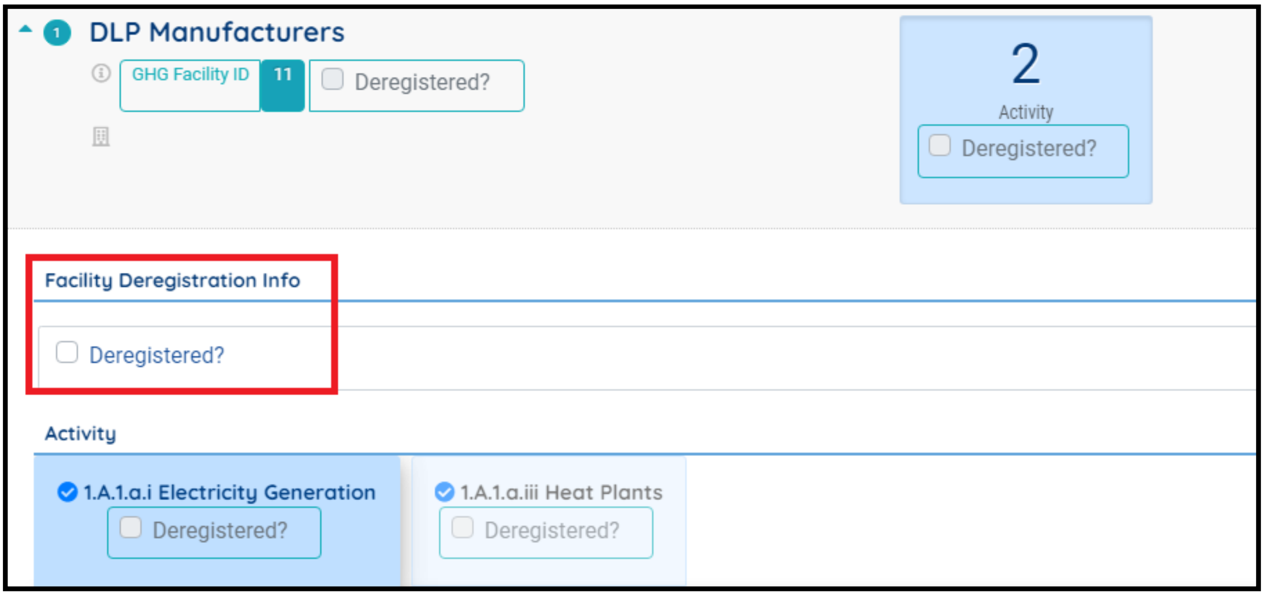


Figure 42 Deregister Facility

- **Deregister Activity**
  When only specific activity needs to get deregistered from one facility, public users need to pick IPCC at activity level.

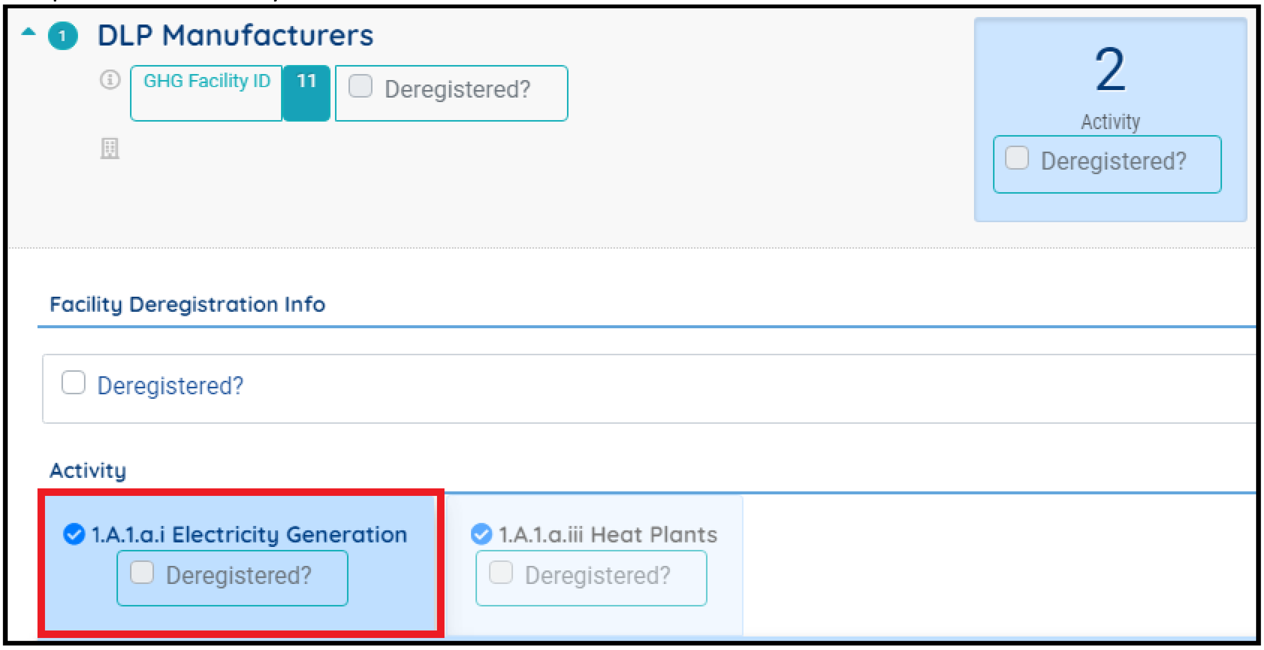


Figure 43 Deregister activities

<u>Step3 Put correct information for successor owner</u>

If the deregistration is caused by “Change of Ownership”, public users need to input correct information for successor owner.

Public users need to ensure to enter an accurate and valid New Owner Email address. After DEFF approves your request, a Transfer Code will be sent to new owner email address. If the new owner doesn’t receive this Transfer Code, it will prevent him/her from registering with SAGERS system as the new owner.

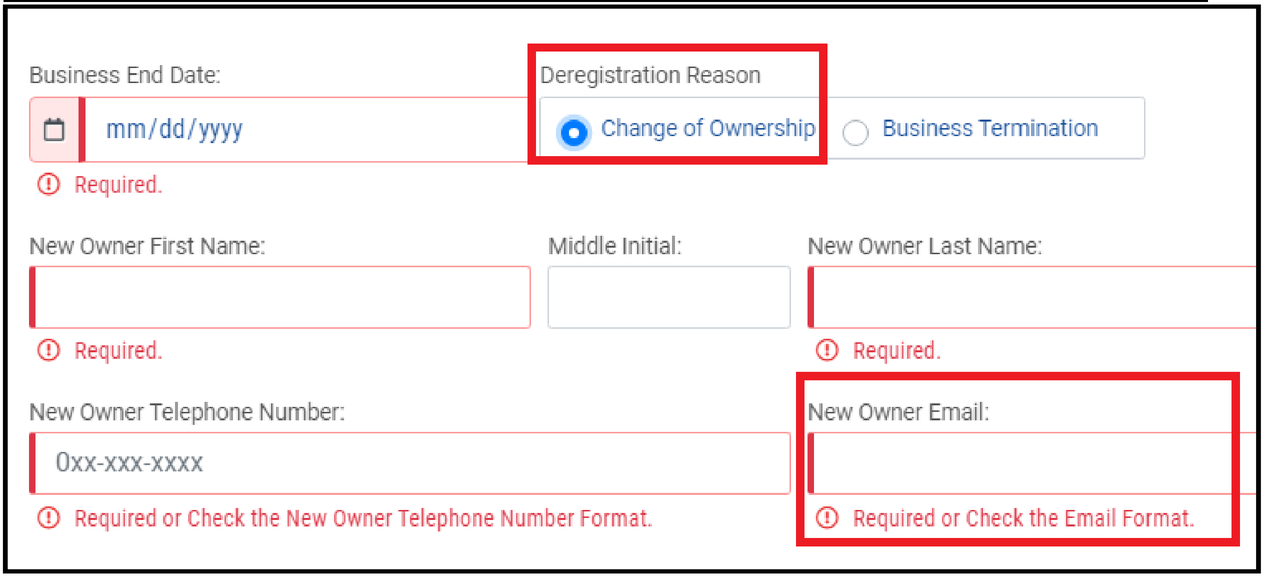


Figure 44 New Owner Information

7.3 Continueing with Unfinished Deregistering Submittal

Public users can also save their work and come back to continue with the previously saved Deregister Data Provider/Facility submittal next time when they log in their user account. Please refer to section 5.3 for future instructions.

7.4 Delete Unfinished Deregistering Submittal

Public users are able to delete unwanted Deregister Data Provider/Facility submittal when it is not submitted yet. Please refer to section 5.4 for more detailed instructions.

7.5 Track Submitted Deregistered Submittals

Public users are able to track the review status of submitted Deregister Data Provider/Facility form under Track Submittal Status module. Please refer to section 5.4 for more detailed instruction.

8 Country-Specific Emission Factor Request Process

In line with regulation 10(2), any public user can submit country-specific (tier-2) emission factor requests with SAGERS system.

8.1 Start a New Request Approval for Country-Specific Emission Factor form

Select “Request for approval for Country-Specific emission factor” . Please refer to section 5.1 for detailed instructions.

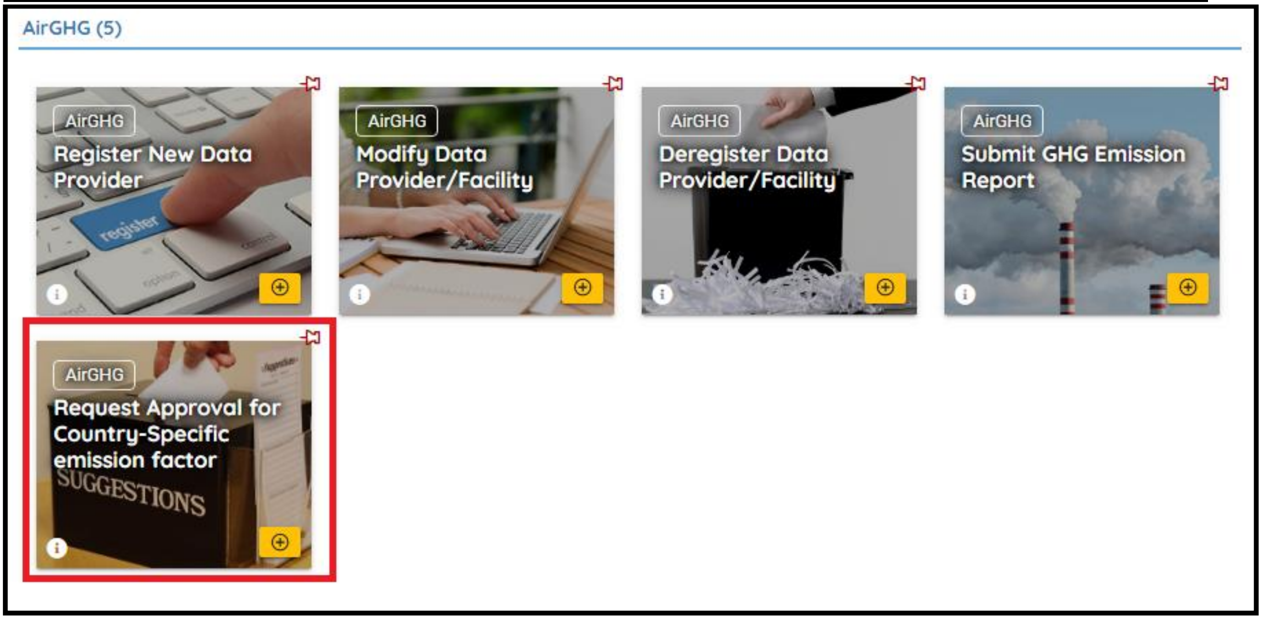


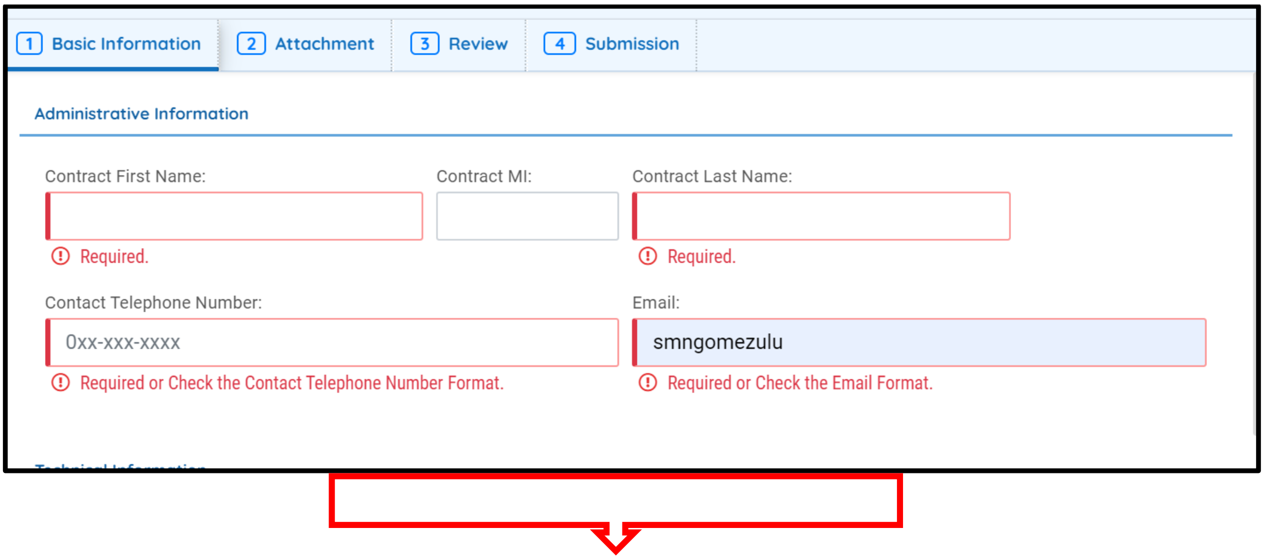
Figure 45 Request Approval for Country-Specific Emission Factor

8.2 Prepare and Submit Form

Following sections provide only instructions to the steps that are commonly considered as "difficulty" to first time users.

<u>Step1: Select IPCC codes</u>

Public users need to first provide administrative information and select the IPCC code for which the emission factor applies. On each form, only one IPCC code can be selected.



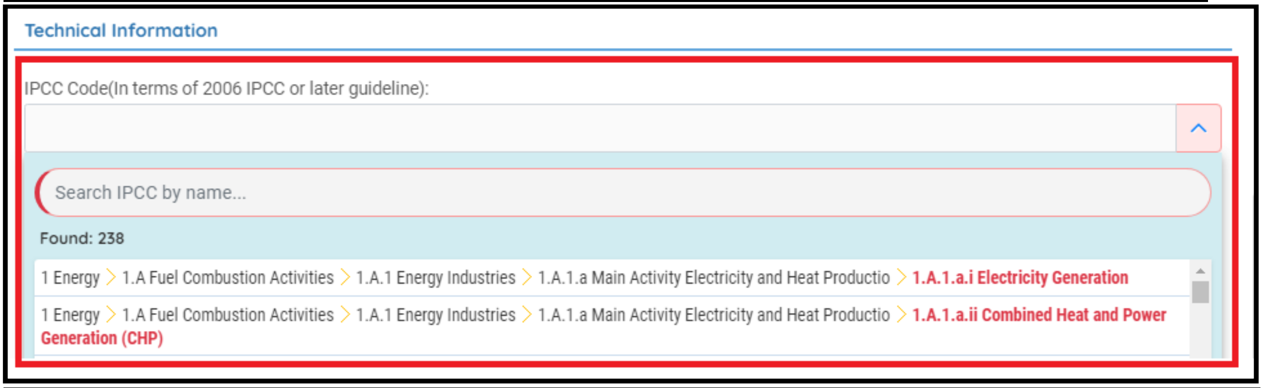


Figure 46 IPCC codes

Step2 Add GHG

After picking up the IPCC code, public users need to further specify the Greenhouse Gas which the emission factor is associated with.

- In the GHG dropdown, it displays all relevant GHG based on the selection of IPCC code. For different IPCC codes, the options shown in Greenhouse Gas dropdown may vary.
- The values shown in Fuel, Metadata and Metadata 2 dropdown fields depend on the selection of both IPCC codes and Greenhouse Gas.

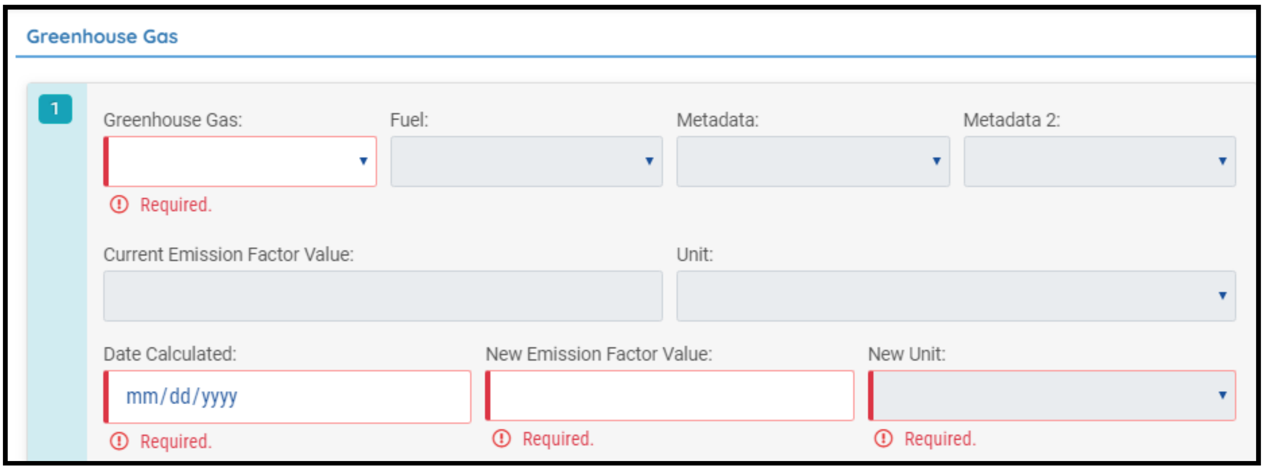


Figure 47 GHG substances

- Public users are able to add more than one relevant substance on the online form by clicking on "Add Item" button.

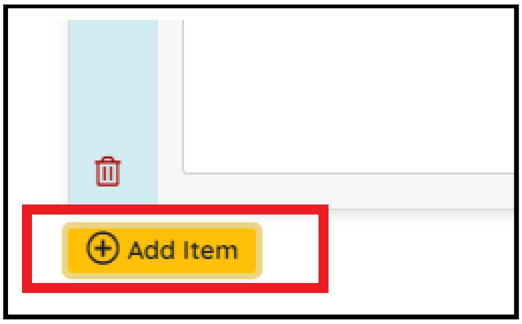


Figure 48 Add more GHG

8.3 Continued Unfinished Submittal

Public users can also save their work and come back to continue with the previously saved Request Approval for Country-Specific Emission Factor submittal next time when they log in their user account. Please refer to section 5.3 for future instructions.

8.4 Delete Unfinished Submittal

Public users are able to delete unwanted Country-Specific Emission Factor requests when it is not submitted yet. Please refer to section 5.4 for more detailed instructions.

8.5 Track Submitted Submittals

Public users are able to track the review status of submitted Request Approval for Country-Specific Emission Factor form under Track Submittal Status module. Please refer to section 5.4 for more detailed instruction.

9 Annual GHG Emission Reporting Process

At the end of each calender year, DEFF will publish the GHG Emission Report templates to the data providers who need to submit for the past reporting period. Once the template is published from DEFF, ACOs of corresponding data provider will have the access to the templates and are able to start to prepare the submission.

9.1 Start a New GHG Emission Report

After DEFF publishes the templates, public users will be able to read the information from Submittal Summary module on public user's dashboard. As you log back into a system your reporing templae will be at the centre of your dashboard as shown in figure 51 below.

Pending Obligations stands for the number of GHG emission reports you are supposed to complete and submit...
Please do not go to the module Submit GHG Emission Report, as that functionality of that module is accessed through the centre of your report by clicking the small blue pen icon (under pending)as indicated in figure 51.

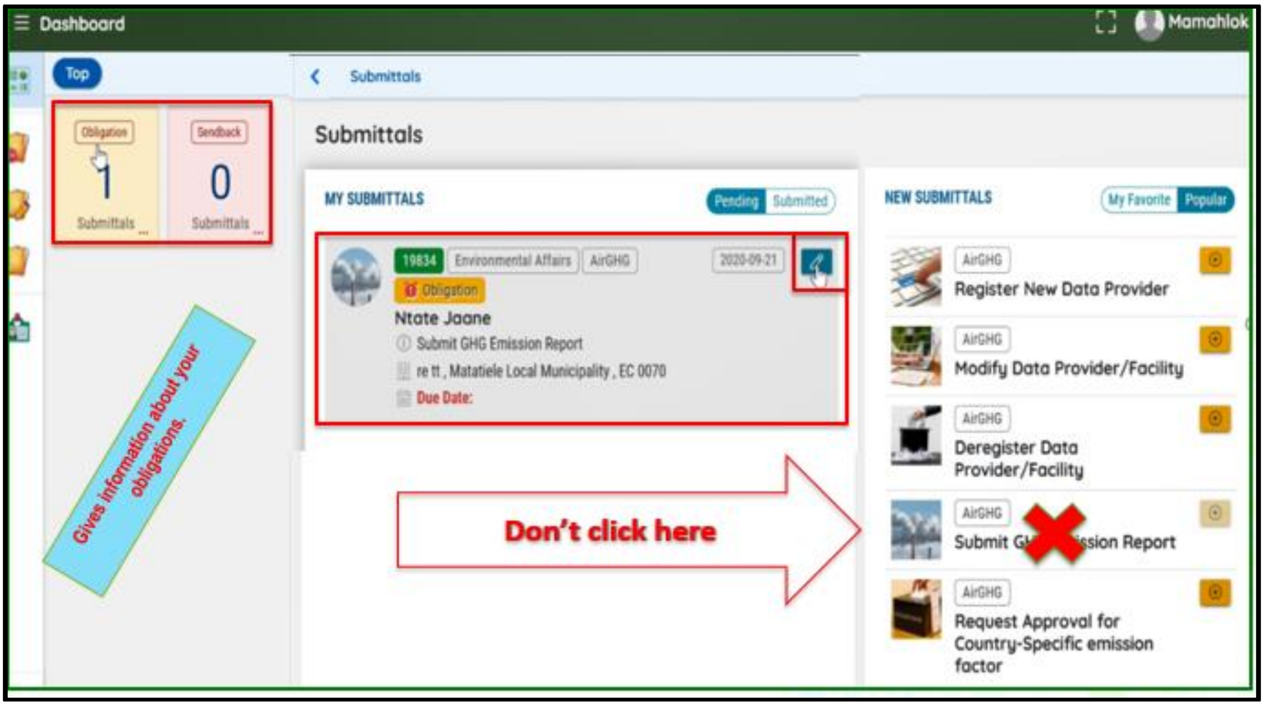


Figure 49 Pending Obligations

Figure 50 Submit GHG Emission Report

9.2 Prepare and Submit Form

Step1 Confirm Accuracy of Populated Information
After clicking the small blue pen icon as illustrated above on 9.1, the information containing all your emission information as shown in figure 53 below will then be populated. Please look carefully at the example below, this particular data provider Ntate Jaane has registered for HAE as their facility and the backup generator sets…….
To add information under each facility please click the small rectangle icon located just before each facility name.

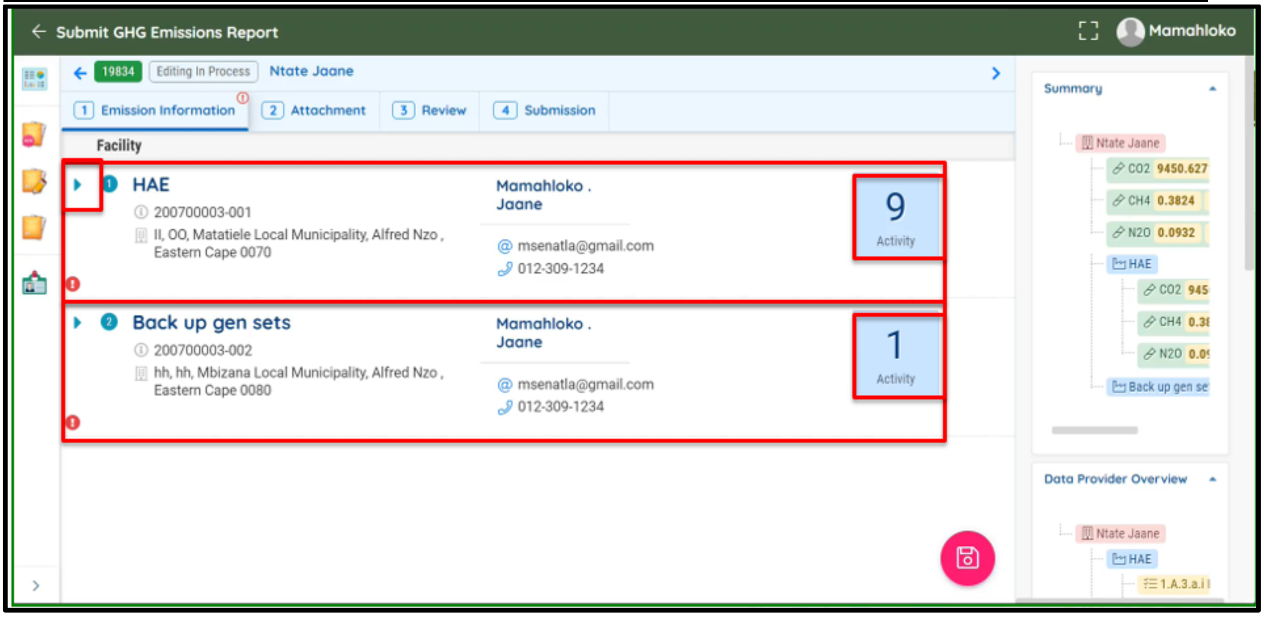


Figure 53 Information Overview

The information populated on the right hand side of GHG Emission Report shows the breakdown of the approved registration of this data provider within SAGERS . Before preparing the emission data, public users need to review if all of the information is accurate, such as number of facility/activity (IPCC) is missing or vice versa. Please note that you will not be able to edit this information as it is already approved.

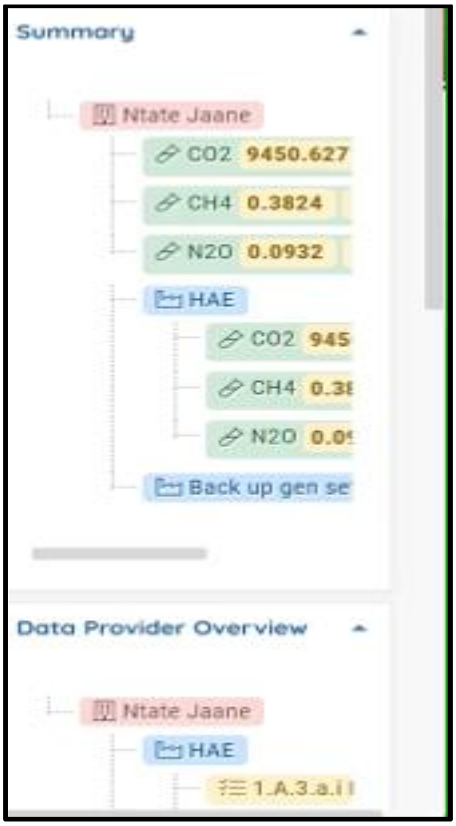


Figure 54 Information Overview

Step2 Report Activity Amount and Emission Data

Public users need to report GHG emission for each IPCC code of all associated facilities separately.

9.2.1 Add Activity Detail

- After clicking the small rectangle icon you will then see the activities registered for your facility then you will be required to add activity details accordingly by clicking the yellow ádd item”button below.

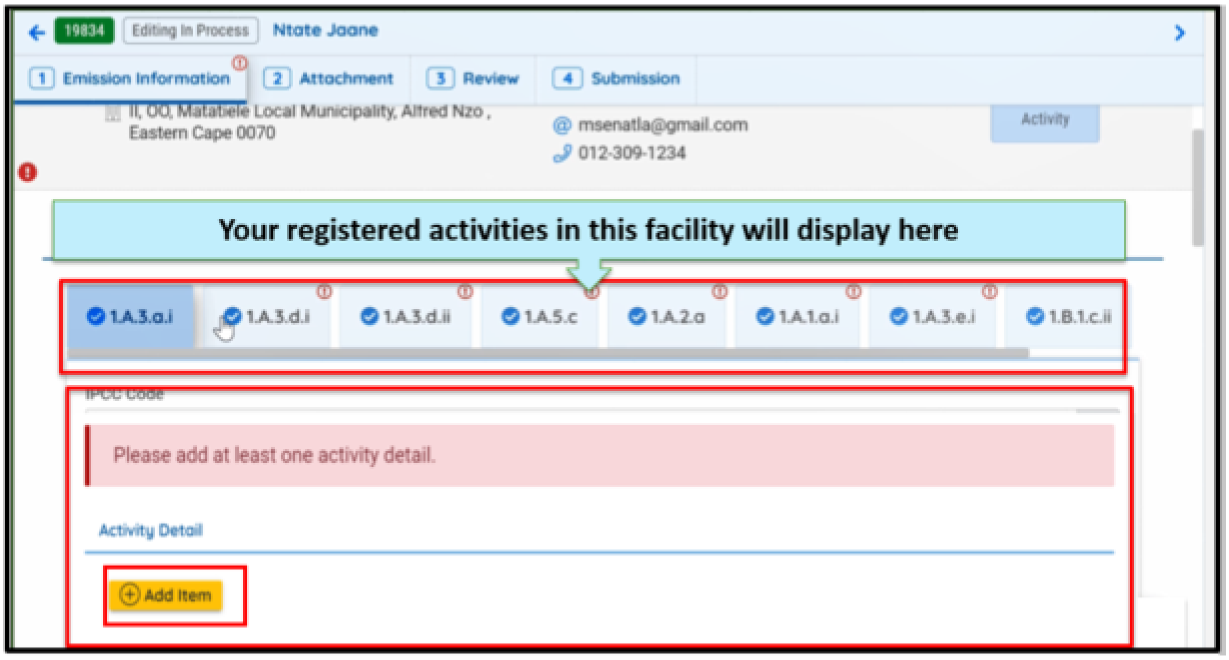


Figure 51 Add activity details

- The System will automatically display the required activity data and all relevant GHG ties to this IPCC code.

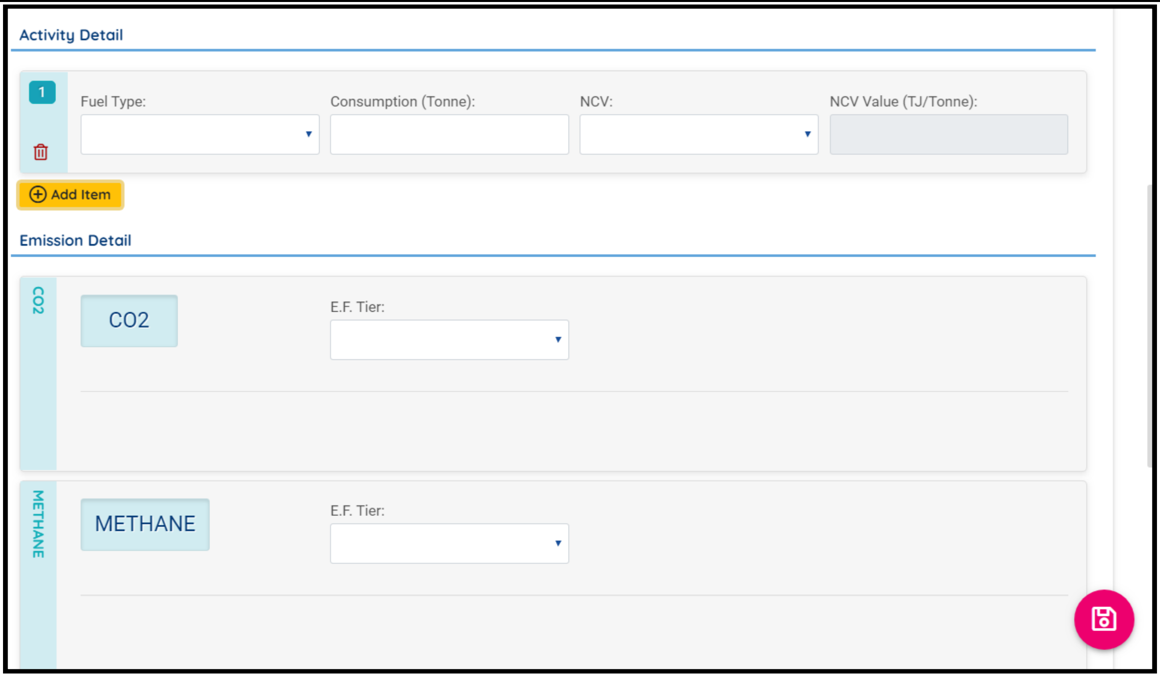


Figure 52 Activity data and relevant GHG

9.2.2 GHG Calculation Methodology

- After completing information at Activity Detail section, public users can continue to prepare GHG emission data. For each GHG, public users are able to specify the tier of emission calculation methodology. Based on different tier, different information will be required to be provided.
  The definition of each tier could be checked in following table.

Tier	Characteristics	Definition
Tier 1	• Implied and conservative methodology • IPCC default emission factors available for most activities • High level of uncertainty	A bare minimum method using readily available statistical data on the intensity of processes (activity data) and default emission data. This method is the simplest method and has the highest level of uncertainty.
Tier 2	• Calculation methodology based on a combination of facility-level and/or sector-specific parameters • Sector/plant specific emission factors	Similar to Tier1 but uses technology or country specific emission factors. Tier 2 methods reduce the level of uncertainty.
Tier 3	• Calculation methodology based exclusively on facility-level parameter and/or continuous monitoring • Emission modeling or detailed mass balance	Tier 3 is defined as any methodology more detailed than Tier2 and might include amongst others, process modules and direct measurements. Tier 3 methods have the lowest level of accuracy.

Table 1 Calculation Methodology

9.2.3 Energy Section Reporting : Fuel Combustion Activities

After you have added an item as described in Section 9.2.1 above. You need to :

[1] Select a fuel type (For Figure 53, Jet Kerosene is chosen)

[2] Select the type of Net Calorific value (For Figure 53, IPCC Default Calorific Value is chosen)

[3] Select the Net Carolific Value Units (For Figure 53, the default NCV units are TJ/Tonne)

[4] Input in the fuel consumption value (pay attention to the type of units chosen). In Figure 53 below, the consumption must be in tonnes because the Net calorific value is in TJ/tonne)

[5] Select the Tier Method

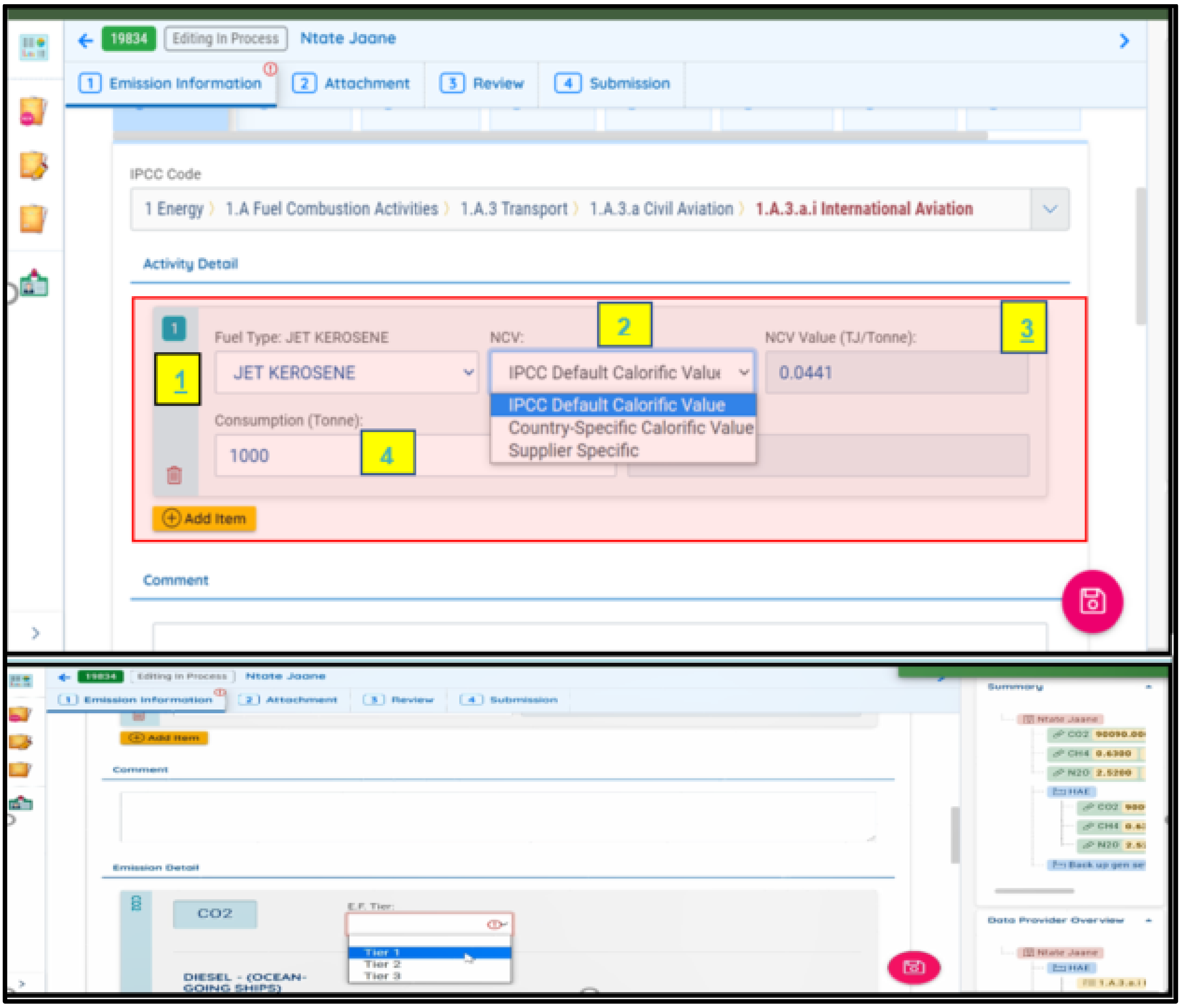


Figure 53: Reportng for 1.A.3.a.i: International Aviation

If you decide to use the country specific Net Calorific Value, the value will also be pre-populated for you like in the case of default IPCC value. However you still need to make choices about the type of units the country specific value is in. If you get your fuel in Litres, you need to

[1] Choose the units of the Net calorifc value in TJ/L as shown in Figure 54

[2] Put the consumption value in Litres

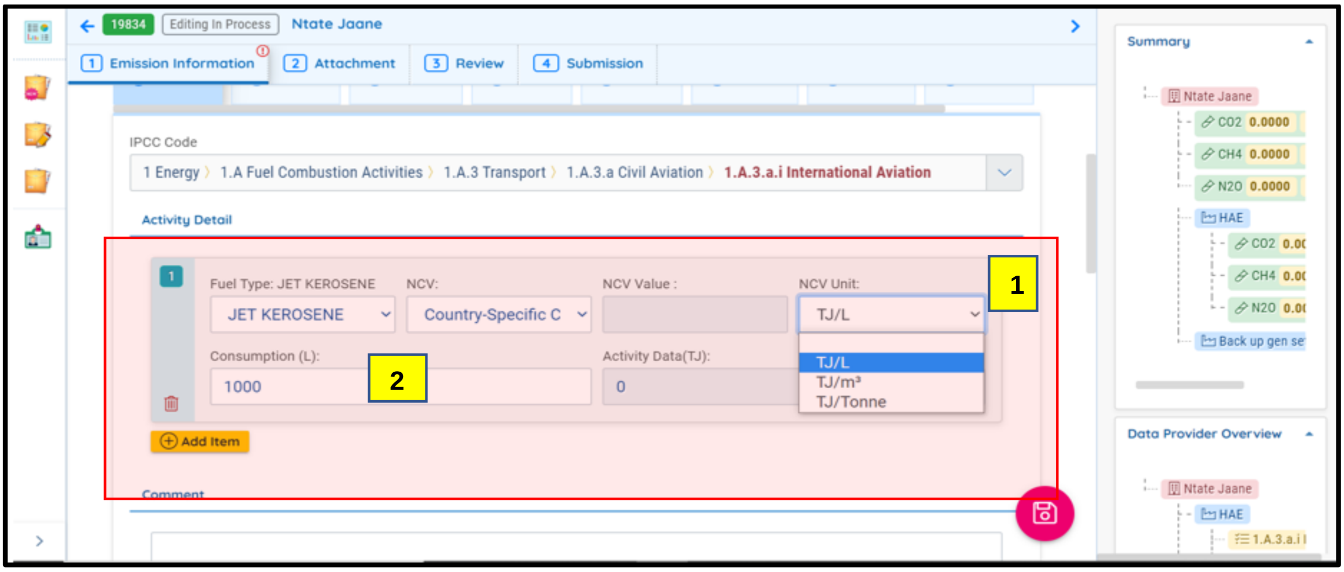


Figure 54: Choosing Country Specific or Supplier Specific Net Calorific Value

In case where you decide to use Supplier Specific Net Calorific Value, you will need to

[1] Supply the Net Calorific Value as given by the fuel supplier

[2] Choose the units for the Net Calorific Value

[3] Put the consumption in appropriate units (For example if the NCV units are in TJ/L, your consumption must be in Litres)

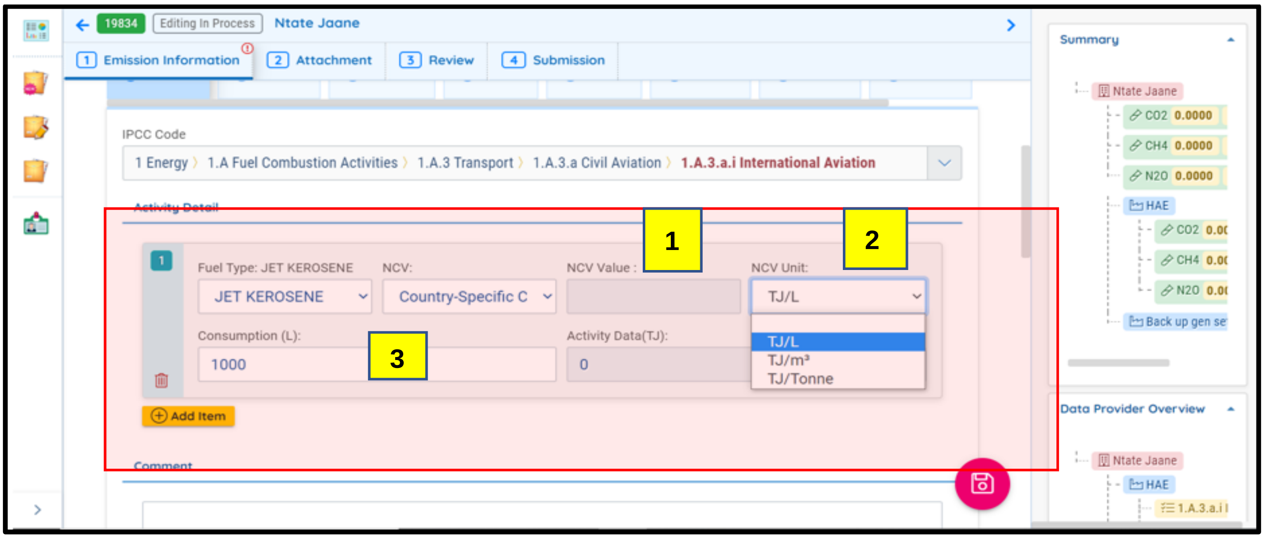


Figure 61

Selecting a Tier method

[1] Choose the Tier method you are using to report.

[2] Input the amount captured if you have carbon and capture storage.

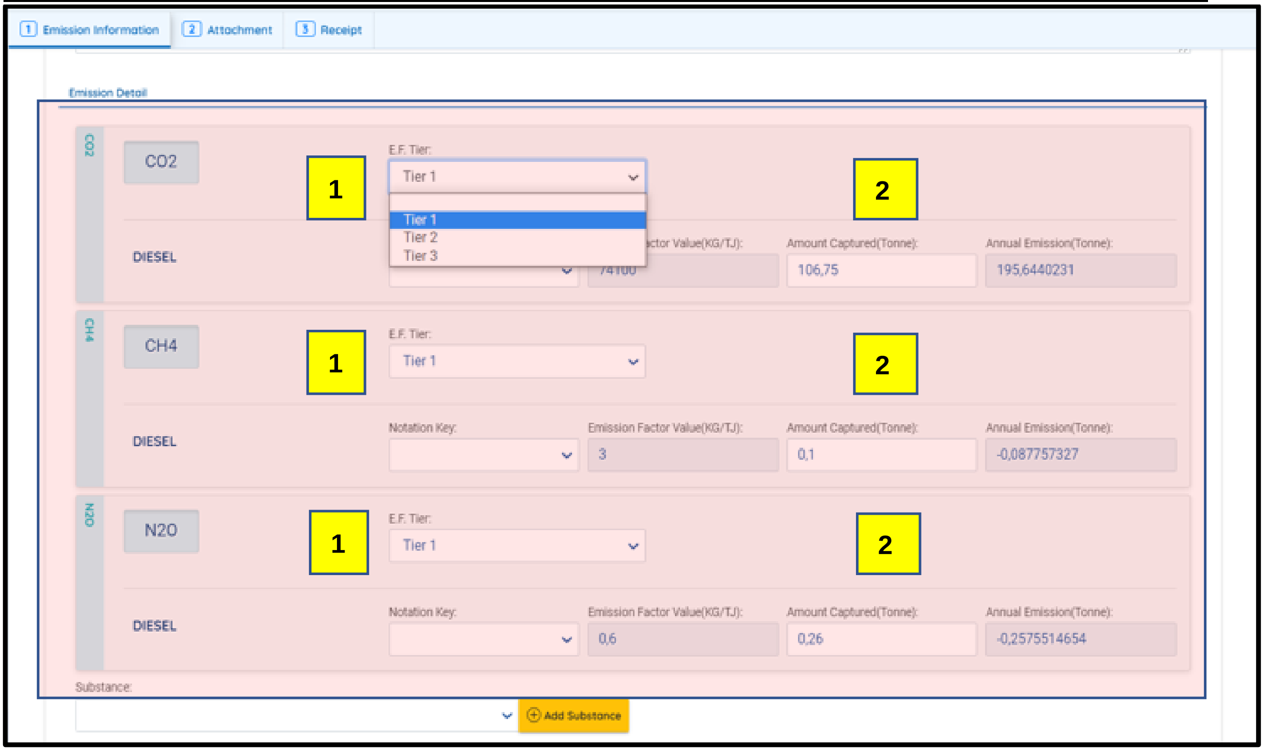


Figure 62

Direct Inputs.

To report activity amount and emission data, public users need to click on Add Item button on one IPCC code tab.

1.A.5.c Multilateral operations

Click on ''Add activity details"and select Multilateral IPCC 1.A.5.c

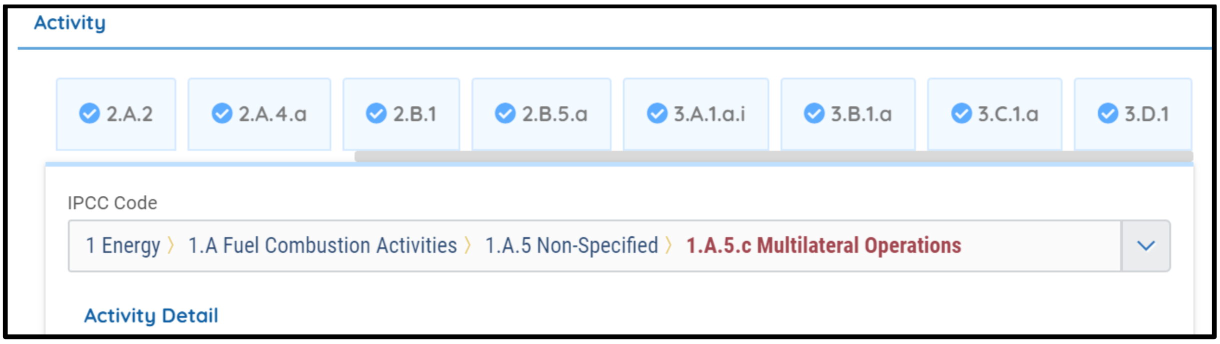


Figure 63

You will then be required to:

[1] Selct the fuel type

[2] Put the consumption in appropriate units (For example if the NCV units are in TJ/L, your consumption must be in Litres)

[3] Select NCV type and the NCV Value will be populated by default if using default country specific IPCC calorific value.

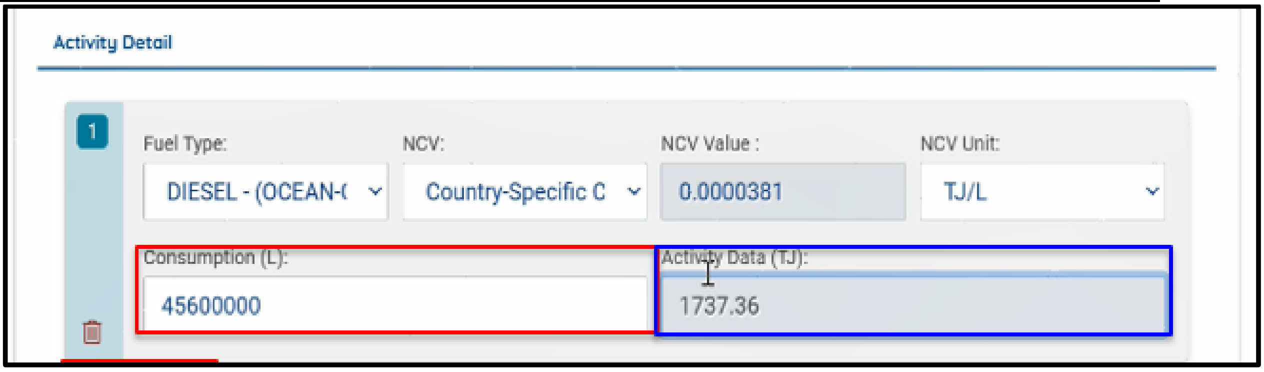


Figure 64

1.B.1.a.i Underground coal mining

Click on ''Add activity details"and select activity 1.B.1.a. Underground post-mining (Handling and Transport)

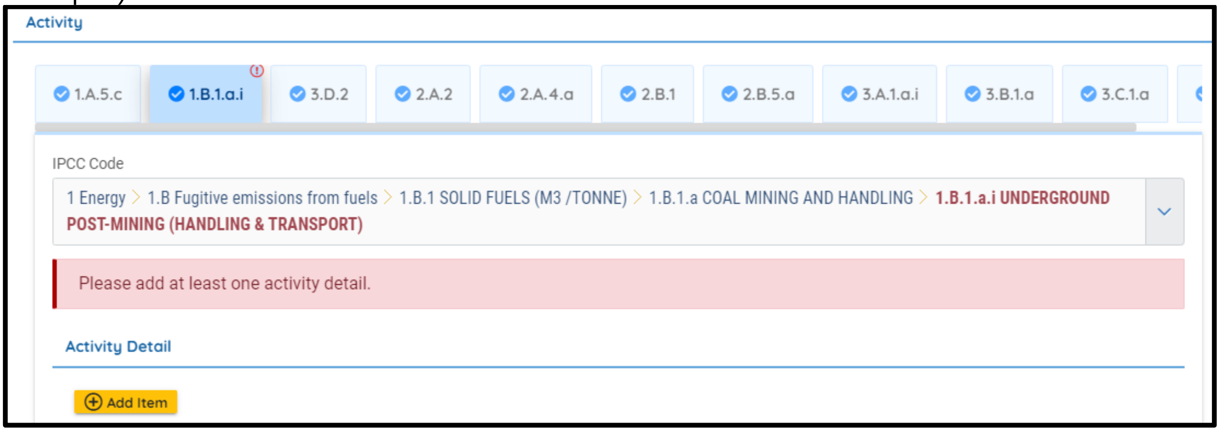


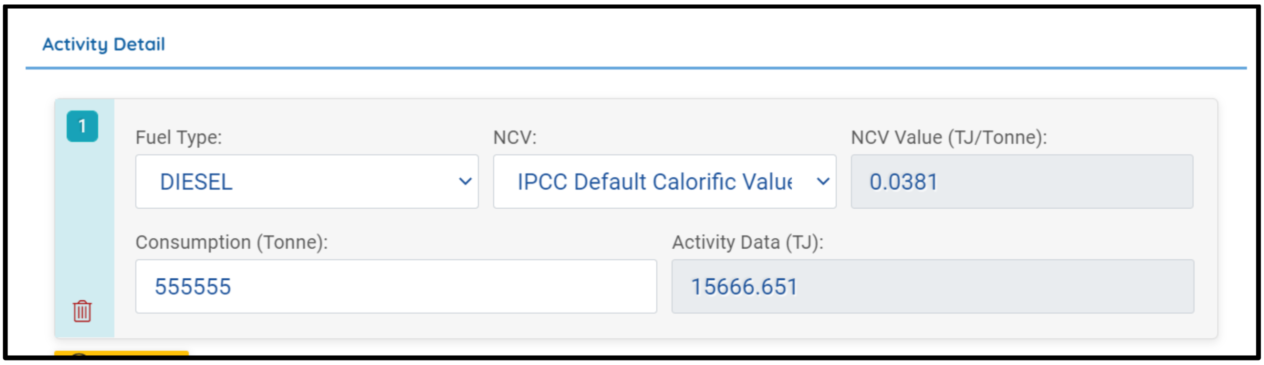
Figure 65

After selecting the activity details then click on add item

[1] Select the fuel type

[2] Put the consumption in appropriate units (For example if the NCV units are in TJ/L, your consumption must be in Litres)

[3] Select NCV type and the NCV Value will be populated by default if using default country specific IPCC calorific value.

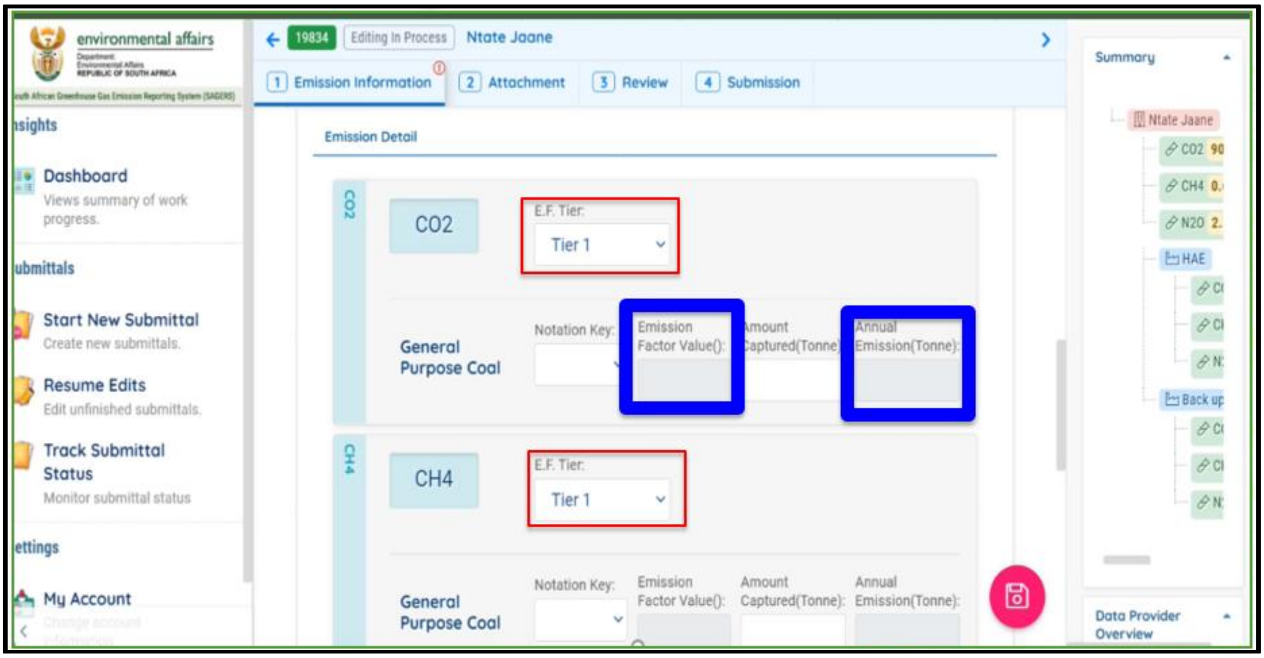


Add Emission Deails:

[1] Selct the Tier metho for each gas type

[2] The Emission factor will be populated

[3] Click save button at the bottom so that you do not lose your information

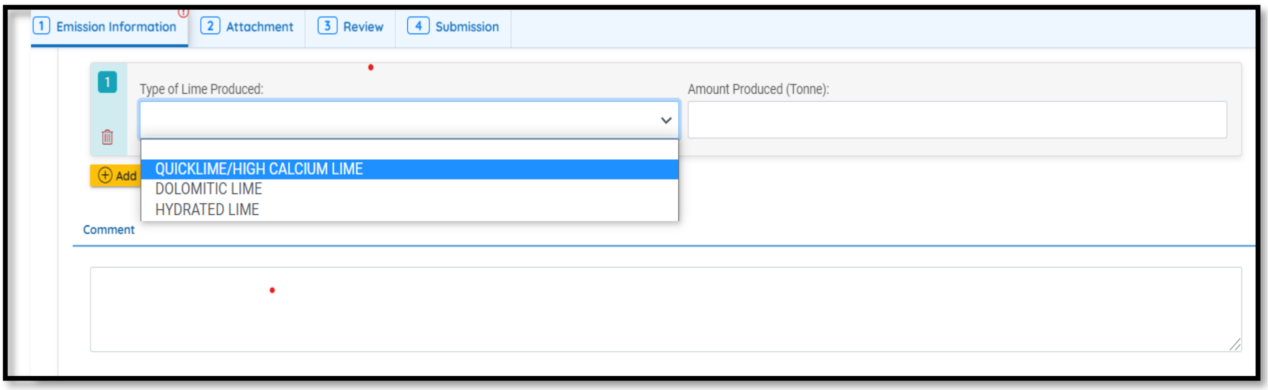


9.2.4 IPPU Reporting Section 2.A.2 Lime production (per Tonne of lime)

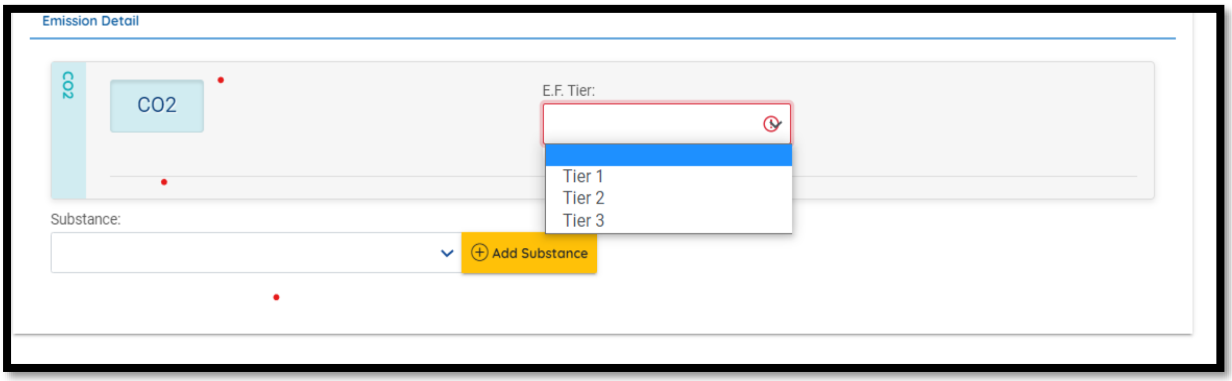
Select activity code 2.A.2 Lime Production (per tonne of lime) and follow similar speps as it is explaned on 9.2.1

After selecting the activity details then click on add item

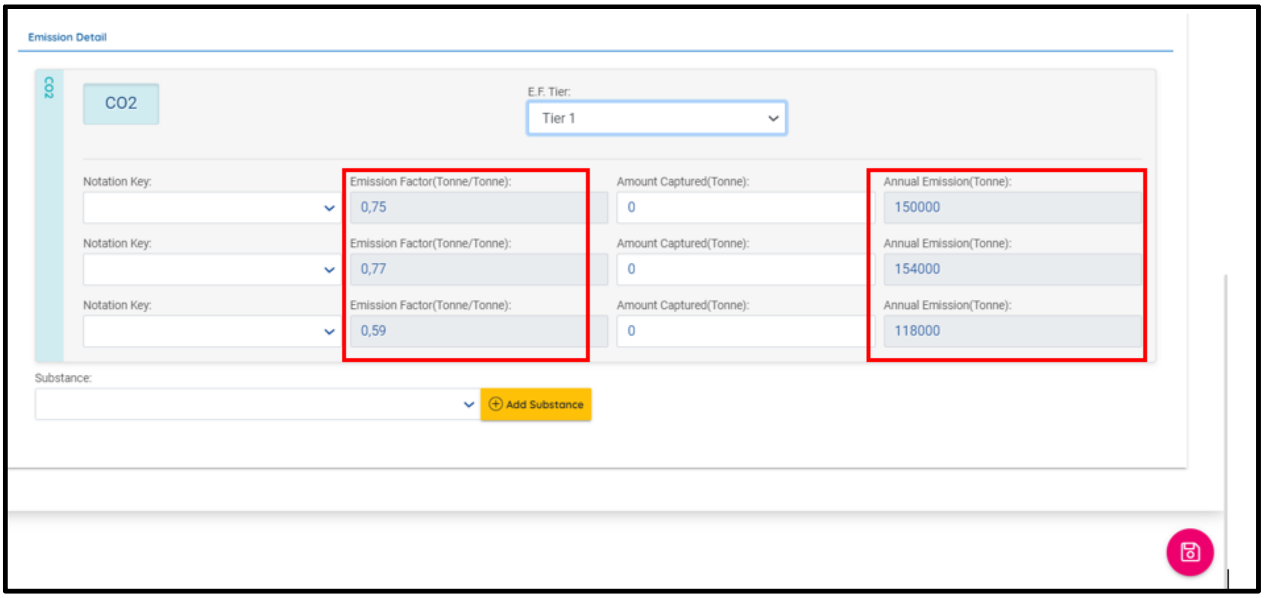
[1] Select the type of lime produced by expanding a dropdown arrow.



[2] Under Emissions details, select a Tier method for each gas type

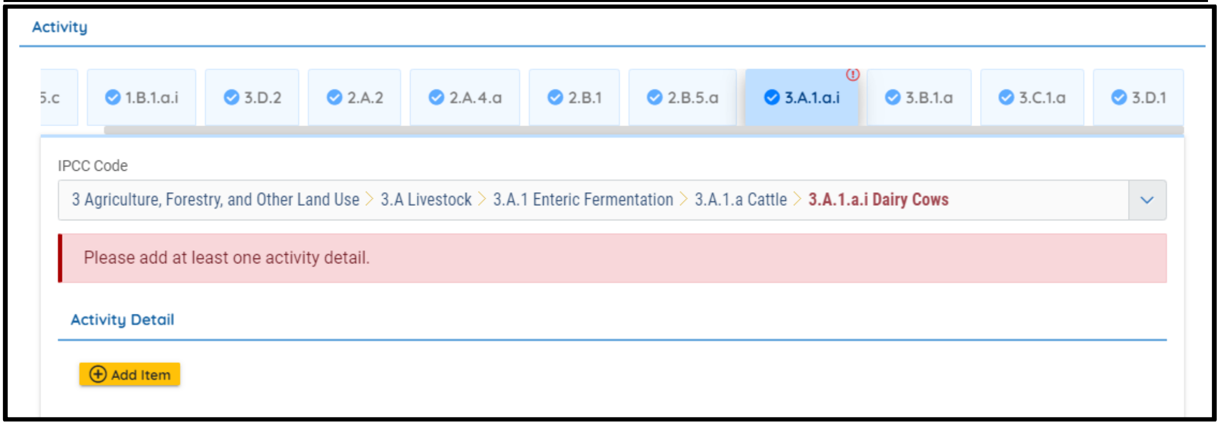


[3] The emissions factor will then be populated after selecting the Tier method and click save.

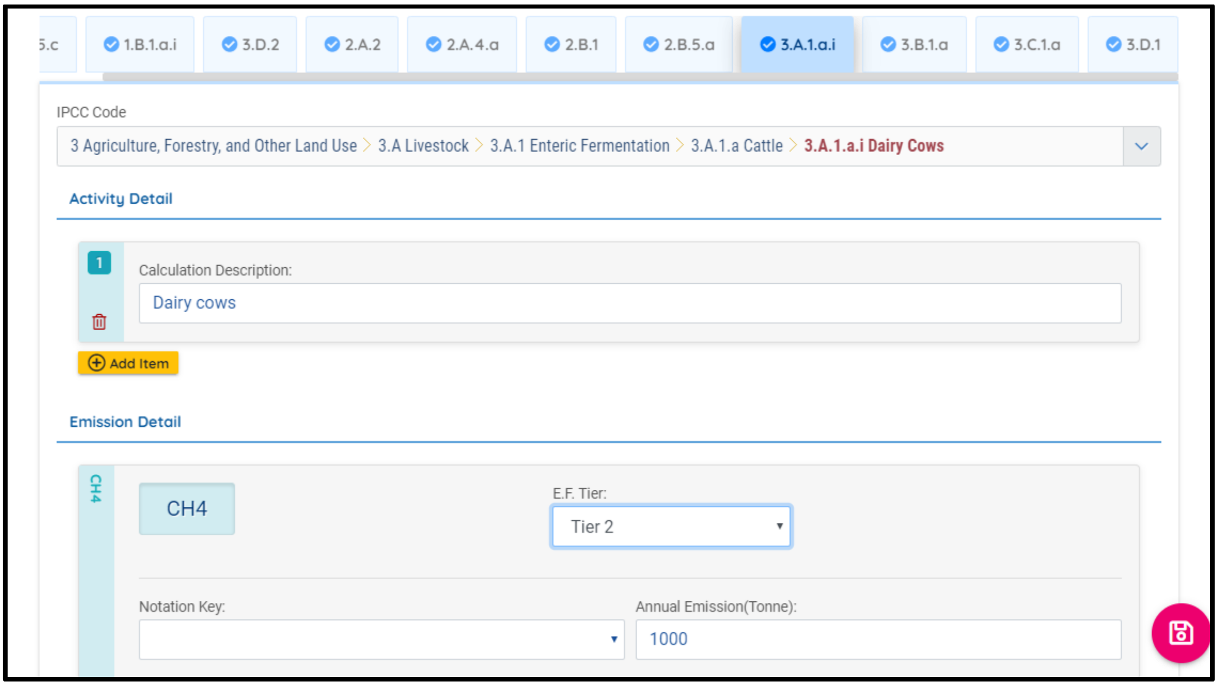


9.2.5 AFOLU Reporting Section 3.A.1.a.i Dairy Cows

After selecting the activity details for example 3.A.1.a.i Dairy cows as shown in figure… then click on add item

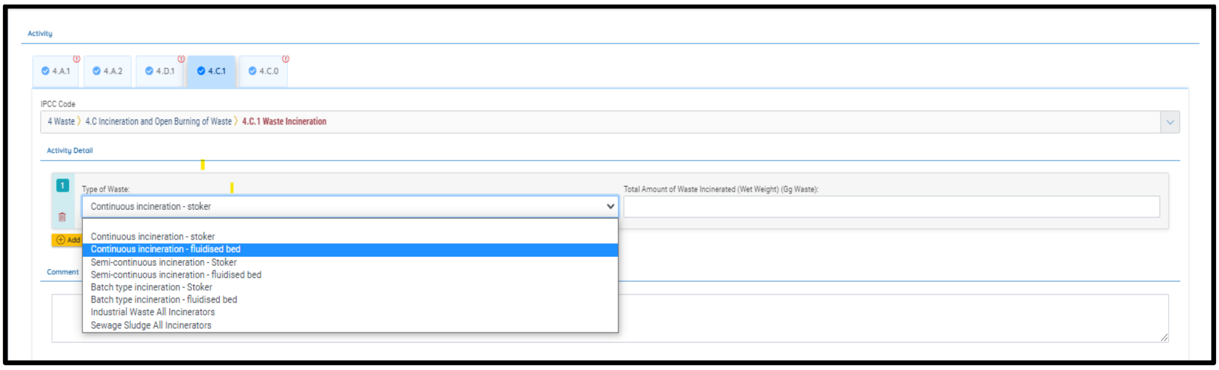


[1] After Clicking “Add Item’’ the activity detail will show
[2] Input the calculation Description “Dairly cows”
[3] Under Emission Detail select Tier method for each gas type[4] Add the annual emission per Tonne and click save button



9.2.6 Waste Reporting Section 4.C.1 Waste incirination

After selecting the activity details type of waste for example 4.C.1 Waste incirination as shown in figure… then click on add item

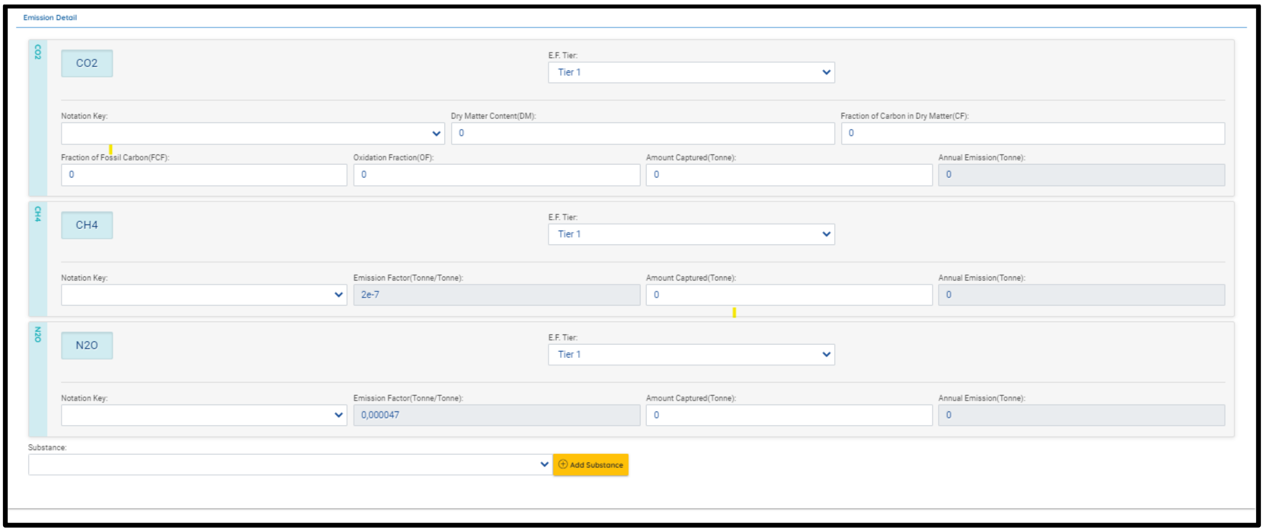


[1]You have to Select the tier method for each gass

[2]Add Dry matter content

[3]Add fraction of carbon in dry matter

[4]Finally the annual emissions and click save button



9.2.7 Notation Key

Public users don’t have right to remove any relevant substances but there are 4 types of notation keys that public users can select to explain the reason why this relevant GHG is not applicable.

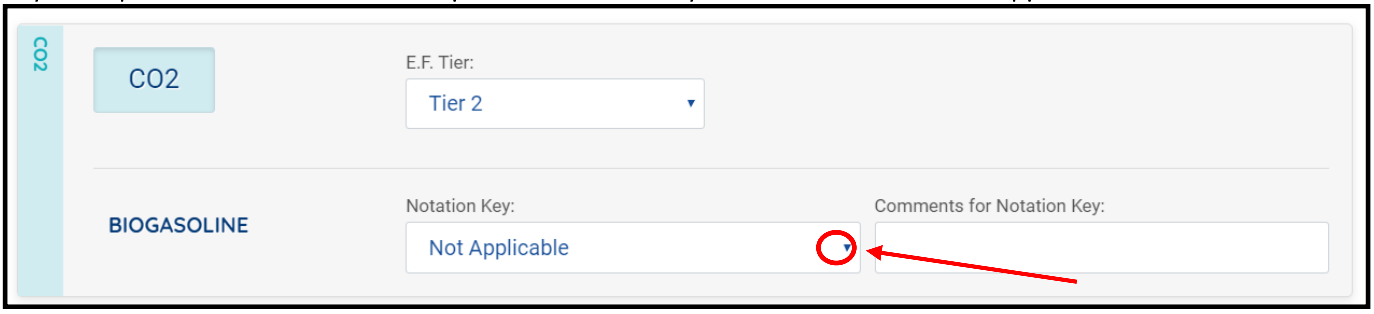


Figure 55 Notation key

9.2.8 Add Additional GHG

Besides of default relevant GHG, public users are also able to report if there is any additional GHG emitted for the activity. Public users are able to do that by clicking on the “Add Substances” button shown in followings figure.

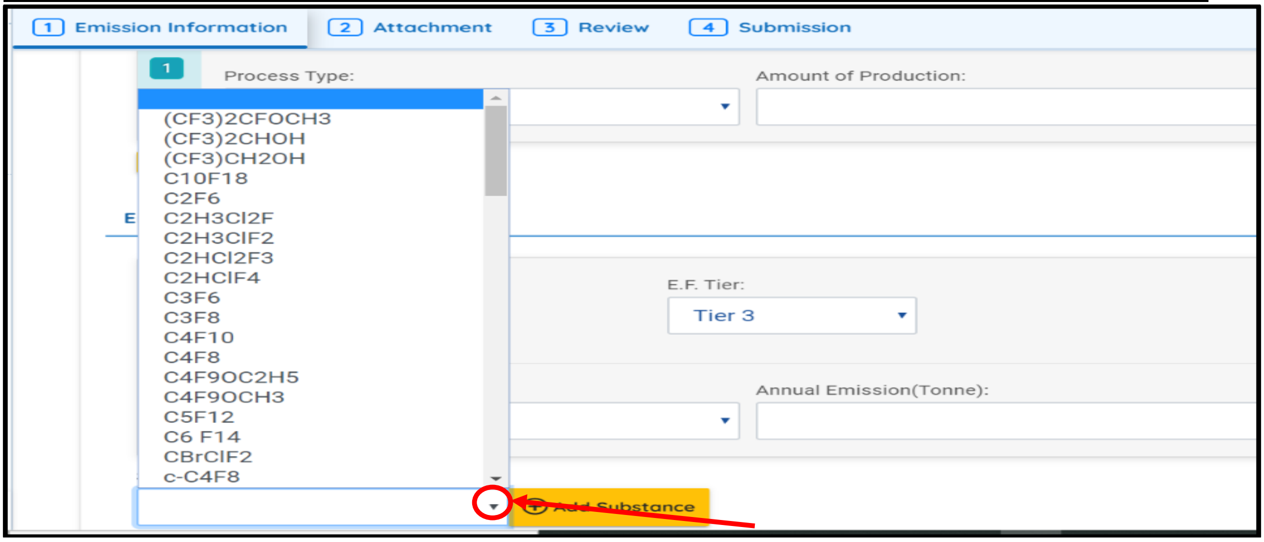


Figure 56 Add additional substances

9.3 Continued Unfinished Submittal

Public users can also save their work and come back to continue with the previously saved GHG Emission Report next time when they log in their user account. Please refer to section 5.3 for future instructions.

9.4 Delete Unfinished Submittal

Public users are not able to delete unwanted GHG Emission submittal from Resume Edits module even when it is not submitted yet since this type of submission is considered as public users' obligation which needs to be fulfilled.

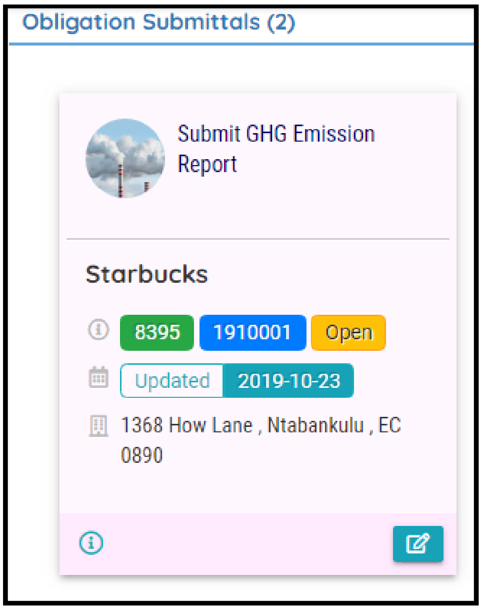


Figure 57 No delete button for GHG Emission Report

9.5 Track Submitted Submittals

Public users are able to track the review status of submitted Request Approval for Country-Specific Emission Factor form under Track Submittal Status module. Please refer to section 5.4 for more detailed instruction.