Oracle Fusion Cloud Sustainability

How do I get started with Sustainability?

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Author: Oracle Corporation

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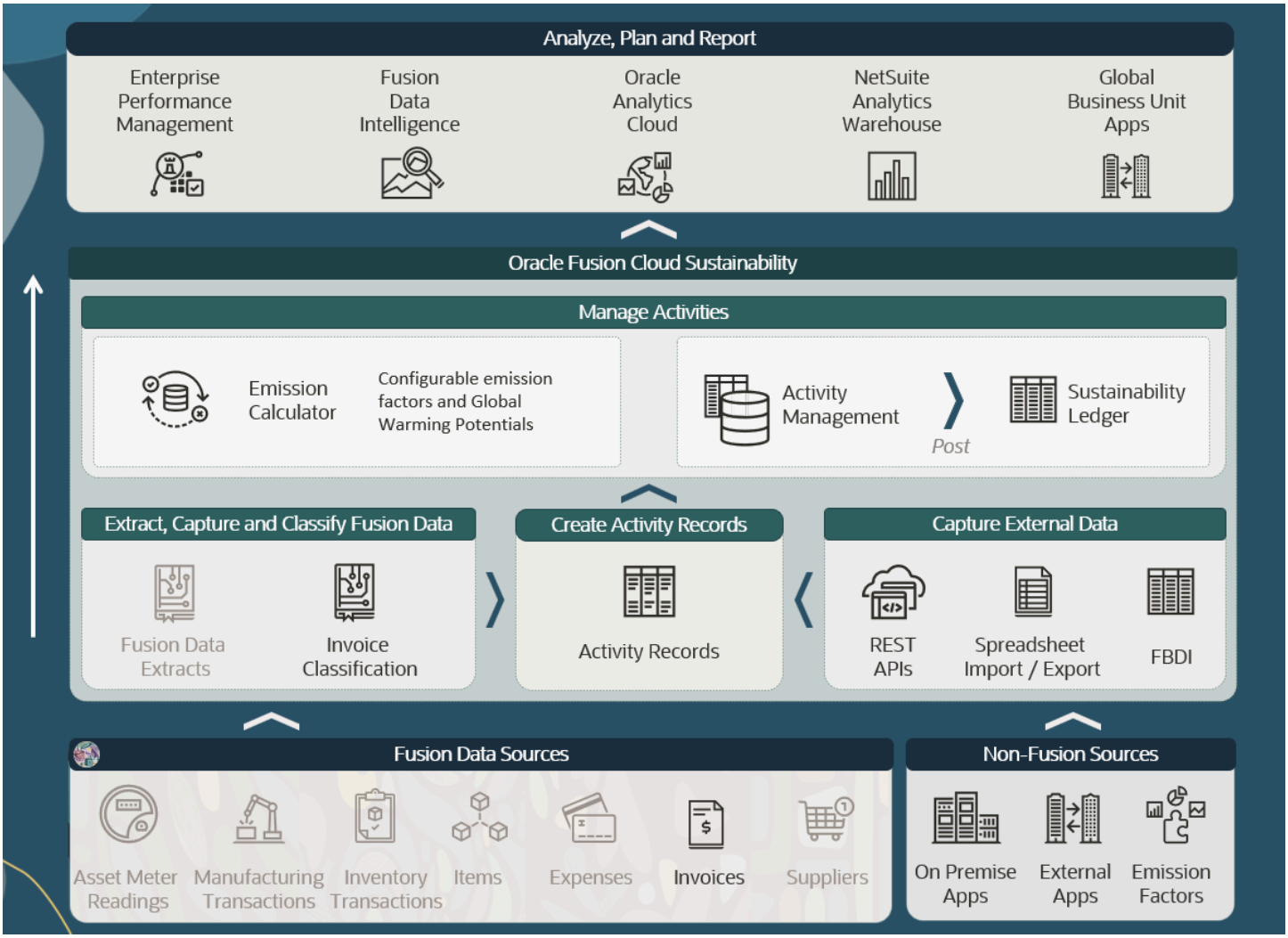
1 Overview

Overview of Oracle Fusion Cloud Sustainability

Oracle Fusion Cloud Sustainability helps organizations to easily capture and manage data associated with sustainability activities. Oracle Sustainability also helps you to consolidate and streamline sustainability data from disparate systems and provides you with visibility and insights needed to make impactful decisions to achieve your sustainability targets.

Oracle Sustainability lets you capture and manage sustainability data that's associated with environmental, social, and governance activities. It lets you streamline the data collection process, prove traceability to auditors, drill back from summarized metrics into the underlying transactional data to get the context needed to drive impactful decisions, and build sustainability awareness and measurement into your organization’s operations.

The following figure shows the flow of data through Oracle Sustainability, starting from the various data sources at the bottom to the analytics applications at the top that can consume sustainability ledger data for reporting.



By capturing sustainability data in Oracle Fusion enterprise applications, and providing tools to analyze this data, Oracle Sustainability helps you streamline the data collection and analysis process.

Oracle Sustainability Concepts

Learn about the definitions that are key to performing various tasks in Oracle Fusion Cloud Sustainability.

- *Activities and Activity Types*
- *Emission Factor Mappings*
- *Sustainability Ledgers*
- *Invoice Classification*

Activities and Activity Types

- A sustainability **activity** is a record of an event, action, or purchase that has sustainability impact. The impact can be environmental, social, or related to corporate governance, or can relate to any other sustainability area specific to your business.
- An **activity type** is a way of classifying a sustainability activity. Examples of emission-generating activity types include Stationary Combustion, Mobile Combustion, and so on. Examples of activity types that do not generate emissions include Tree Planing, Charitable Giving, and so on.

  For each activity type, you can:
  - Have one or more **activity type attributes**, which are attributes specific to an activity type that capture data to help describe an activity of that type. For example, the Stationary Combustion activity type typically has a Fuel Type attribute.
  - Define one or more measure types. A **measure type** describes the quantitative data you want to capture on an activity record. Oracle provides three predefined measure types: Quantity, Distance, and Amount. You can define any additional measure types you need.
  - For an activity type that generates emissions, you must define one or more emission types. An **emission type** is a greenhouse gas or other pollutant (for example, an air pollutant) whose emissions you want to calculate or enter.

Emission Factor Mappings

- An **emission factor mapping** is a record that maps an activity type and a set of attribute values to an emission factor for a specific emission type. To calculate an activity's emissions for a specific emission type, the emission calculator of Oracle Sustainability finds the emission factor mappings that match the activity and the emission type. Oracle Sustainability calculates greenhouse gas (GHG) emissions by using emission factor mappings with the lowest rank number and Global Warming Potentials (GWPs).
- An emission factor mapping **ranking** is a number included in an emission factor mapping record. The ranking specifies the priority of the mapping when the emission calculator finds multiple matching emission factor mappings for the same emission type. A lower number specifies a higher priority.

Sustainability Ledgers

- A **sustainability ledger** is a source of truth in Oracle Sustainability for reporting. You define a sustainability ledger by providing a unique name for the ledger, a description, an accounting calendar, and a first period.
- The accounting calendar associated with the sustainability ledger is a calendar that's defined in Oracle Fusion Financials Cloud. The first **period** assigned to the ledger indicates the period from which the ledger is operational.
- You can assign one or more legal entities to a sustainability ledger, but a legal entity can be assigned to only one sustainability ledger.
- > **Note:** A sustainability ledger is not a financial ledger and has no relation to your financial accounting process.

Invoice Classification

If you process Payables Invoices in your Fusion environment, Oracle Sustainability lets you automatically generate activities and calculate emissions for each invoice distribution. This can be particularly useful for Scope 3 Category 1 (Purchased Goods and Services) activities. The following definitions are key to this task:

- An **activity classification** is a list of all valid combinations of activity type and activity type attributes for which emission factor mappings exist.
- An **invoice classification rule** is a rule that specifies an outcome activity classification provided a set of conditions are met. For example, a rule might specify that if the invoice line description contains the term Diesel and the supplier is Green Corp., then the activity classification should be `Stationary Combustion.Diesel`. There are two types of classification rules:
  - **Exclusion Rule** – Specifies that any invoice distribution that meets a specific set of conditions must be ignored and should *not* be considered for activity creation. These rules are executed first. Any invoice distributions that meet the conditions of any exclusion rule are ignored, and activities aren't generated from them.
  - **Assignment Rule** – Specifies that any invoice distribution that meets a specific set of conditions laid out in the rule must result in an activity that uses the activity classification specified on the rule. These assignment rules are evaluated in the order of ranking from the highest to the lowest rank. A lower number specifies a higher priority. If an invoice distribution doesn't meet the criteria of any assignment rules, an activity is created with a default activity type that you specify in the profile options for Oracle Sustainability.

Overview of Accelerator Spreadsheets

Oracle provides accelerator spreadsheets that help you to quickly prepare your data for setting up Oracle Fusion Cloud Sustainability.

Accelerator spreadsheets are templates with prepopulated data that you can use for setting up common activity types, attribute values, and emission factors from the United States Environmental Protection Agency (US EPA) and the United Kingdom (UK) government. Oracle recommends that you prepare your data in these templates. You can use the templates as is or modify, add, and delete entries to meet the requirements of your business.

Oracle recommends that you use the accelerator spreadsheets to prepare your data for all entities such as activity types, sustainability ledgers, value sets, emission factor mappings, and so on. Ensure to read the comments in the column header of the accelerator spreadsheet that provides important information.

The following are the accelerator spreadsheets that Oracle provides:

> **Note:** The spreadsheets only contain sample data. Modify the data to match your business requirements.

- Sustainability Ledger Sample Values

  Contains a sample sustainability ledger setup with ledger name and legal entities.
- Value Sets

  Contains prepopulated value sets having reference data (for example, vehicle types, fuel types, and spend types) aligned with the US EPA and UK government emission factor mappings.
- Activity Types

Contains several common activity types and the possible measure and emission types associated with each activity type.

- Global Warming Potentials (GWPs)

  Contains prepopulated GWPs for several emission types.

- Emission Factor Mappings

  Contains prepopulated emission factor mappings from the US EPA and UK government. There are emission factor mapping files for specific calendar years. The first tab in each file lists the sources of the emission factors.

- Invoice Classification Rules

  Contains sample invoice classification rules to guide your own rules setup.

- Activities

  Oracle provides one spreadsheet each for most common activity types such as mobile combustion, purchased energy, stationary combustion, and so on. These spreadsheets contain sample data that help you understand what you can capture on an activity.

In addition, Oracle provides the following published VB Add-in for Excel spreadsheets for value sets and invoice classification rules:

- Value Set Published: You can use this spreadsheet as an alternative to manually creating value sets in Oracle Sustainability. It can be especially useful when you need to upload multiple values for a given value set in one go. Note that, using this published sheet, you can add values to one value set at a time.
- Invoice Classification Rules - Published: You can use this spreadsheet as an alternative to manually creating one invoice classification rule at a time in Oracle Sustainability. However, if you plan to create or modify rules in bulk, then you must only use this published spreadsheet.

> **CAUTION:** Oracle recommends that you neither create your own Visual Builder Add-in for Excel spreadsheet for invoice classification rules nor use the REST API directly to create rules, as that can result in unintended data corruption.

You can download these published sheets from *Oracle Cloud Customer Connect*. Then, copy your prepared data from the accelerator spreadsheets to the corresponding VB Add-in for Excel spreadsheets, and then upload the data to Oracle Sustainability.

Related Topics

- Configure Emission Factor Mappings
- Upload Changes Using Oracle Visual Builder Add-in for Excel Spreadsheets

2 Before You Begin

Implementation Overview

Learn about the types of implementation available for Oracle Fusion Cloud Sustainability.

Oracle Sustainability provides two approaches for implementation - rapid implementation and regular implementation.

Rapid implementation provides organizations with a means to get familiar with Oracle Sustainability by using a sample configuration. To perform rapid implementation, Oracle provides a configuration package containing preconfigured setup data.

By using the preconfigured setup data, you can implement Oracle Sustainability quickly and understand its features and capabilities. With this understanding, you can quickly update the setup created through rapid implementation to meet your specific business needs.

On the other hand, regular implementation is elaborate and complete, involving detailed configuration procedures. In this approach, you perform the setup configuration procedures while also configuring Oracle Sustainability as per your business needs at each stage.

After you complete your implementation, you can create or import activities in one of the following ways:

- Create activities manually in Oracle Sustainability.
- Generate activities automatically from Payables Invoices by defining invoice classification rules.
- Import large volumes of activities by using file-based data import (FBDI).

Prerequisites for Implementation

These are the tasks that you must complete before you implement Oracle Sustainability.

- Ensure that the following standard Fusion setup tasks are configured within your Fusion instance:
    - Legal entities

      Every activity must belong to a legal entity. The activity will be posted to a sustainability ledger that's associated with the same legal entity.
    - Accounting calendar

      You must associate a sustainability ledger with an accounting calendar. This determines how sustainability periods in the sustainability ledger are structured.
    - Currencies

      This is required to calculate emissions using spend-based emission factors, or supplier emission intensity.
    - Inventory organizations

If you'd like to use item carbon footprint, or emission factors specific to an inventory item, then the item needs to be validated against an inventory organization that's designated as a validation organization.

- Units of measure (UOMs)

  This is required to calculate emissions using quantity-based emission factors such as quantity of fuel, electricity units consumed, or number of units of an item procured.

- Create and configure any additional setup entities that your business requires. For example, if there's a UOM that you plan to use in emission factor mappings or activities, but that isn't currently defined in the existing **Manage Units of Measure** setup task, then define the UOMs you need. Ensure that intraclass UOM conversion factors are set up for any newly added UOMs.
- If you plan to reference Suppliers and Items in emission factor mappings or sustainability activities, then ensure that they're already created in your Fusion instance.
- If you plan to use interclass UOM conversion, then it must be configured on the inventory item that will be referenced on the emission factor mapping and activities.
- If you want to use accelerator spreadsheets for planning your data, then download the Accelerator Spreadsheet Templates.zip file from *Oracle Cloud Customer Connect*.

Enable the Sustainability Functional Area

You can enable the Sustainability functional area under your respective offering by using the Opt In page of your application.

Oracle Sustainability is available under the following offerings:

- Manufacturing and Supply Chain Materials Management
- Procurement
- Product Management

Before you start

To perform this procedure, you must be assigned a role that includes the Configure Oracle Fusion Applications Offering (ASM_CONFIGURE_OFFERING_PRIV) privilege.

Here's what to do

1. Click **Navigator > My Enterprise > Offerings**.
2. On the Offerings page, select your offering (for example Procurement), and then click **Opt In Features**.
3. On the Opt In page, search for Sustainability, and then select the corresponding **Enable** checkbox.
4. Click **Done**.

Assign Security Privileges

Your company's security administrator who is responsible for granting roles and privileges to Oracle Fusion Cloud Sustainability users must perform these tasks.

- *Identify Users and Assign Job Roles*
- *Create Data Security Policy For Managing Items and Item Class*
- *Create Data Security Policy For Viewing Invoices and Accessing Invoice List of Values*

Related Topics

- Overview of Security Console

Identify Users and Assign Job Roles

You must identify and assign job roles to all users who will perform various tasks in Oracle Fusion Cloud Sustainability.

Oracle Sustainability has the following predefined roles:

- **Sustainability Application Administrator:** Responsible for setting up and configuring Oracle Sustainability to meet the needs of the business.
- **Sustainability Analyst:** Responsible for creating, managing, and posting activity records, resulting in one or more sustainability ledgers that can serve as data sources for analysis and reporting.
- **Sustainability Controller:** Responsible for reviewing sustainability analytics to ensure progress is in line with the company's sustainability goals.
- **Sustainability Integration Specialist:** Responsible for planning, coordinating, and supervising all activities related to the integration of sustainability information systems.

The complete details about these predefined roles, the role hierarchy, duties, and privileges can be found in any of the following security reference guides:

- *Security Reference for Manufacturing and Supply Chain Materials Management*
- *Security Reference for Procurement*
- *Security Reference for Product Management*

As the security administrator, perform the following tasks:

1. Create your own roles by making a copy of all the predefined roles in Oracle Sustainability.
2. Assign these roles to users identified for carrying out various tasks (such as setup tasks, creating and managing sustainability activities, and so on) in Oracle Sustainability.
3. Ensure that all users inherit the **Employee** abstract role and users that perform setup tasks have the **Application Administrator** job role.

Note: If any of the predefined roles don't appear in the security console, then run the Retrieve Latest LDAP Changes and Import User and Role Application Security Data jobs.

Related Topics

- Retrieve Latest LDAP Changes
- Schedule the Import User and Role Application Security Data Process
- Role Copying or Editing

Create Data Security Policy For Managing Items and Item Class

To calculate emissions for a particular item (for example, an item for carbon footprint), sustainability analysts must specify the item while creating activities or entering emission factor mappings. To enable this, a role that includes the Manage Sustainability Activity (SUS_MANAGE_ACTIVITIES_PRIV) and Manage Emission Factor (SUS_MANAGE_EMISSION_FACTORS_PRIV) privileges must be granted data access to the appropriate item classes.

Before you start

To perform this procedure, you must be assigned a role that includes the Manage Item Class (EGP_MANAGE_ITEM_CLASS_PRIV) privilege.

Here's what to do

1. In the Setup and Maintenance work area, use the **Manage Item Classes** task:
    - Offering: Product Management
    - Functional Area: Items
2. On the Manage Item Classes page, search for and select the item class name for which you want to grant access. The Edit Item Class page is displayed.
3. On the Security tab, click the **Add Row** icon to create the data policy. A new row is added. You can create data policies either for groups (jobs or duty roles) or users.
4. If you want to grant access to all users who are assigned a role that has the privileges of the predefined Sustainability Analyst role, then:
    a. From the **Principal** column, select **Group**.
    b. In the **Name** column, search for and select, or enter the job role name.
    c. In the Organization column, search for and select, or enter the organization name that will be used to validate the item. For example, **Vision Corporation**.

    > **Note:** The organization name that you specify here must also be specified as the value of the ORA_SUS_ITEM_VALIDATION_ORG_CODE profile option.

5. If you want to grant access to a specific user, then:
    a. From the **Principal** column, select **Person**.
    b. In the **Name** column, search for and select, or enter the name of the user. For example, **John Doe**.
    c. In the **Organization** column, search for and select, or enter the organization name that will be used to validate the item. For example, **Vision Corporation**.

    > **Note:** The organization name that you specify here must also be specified as the value of the ORA_SUS_ITEM_VALIDATION_ORG_CODE profile option.

6. Define the actions that the group or user can perform by adding actions as follows:
    a. In the Actions section, from the **Actions** menu, select **Select and Add**. The Select and Add: Actions dialog box is displayed.
    b. In the **Actions** field, enter **View Item Basic**, and then click **Search**.
    c. From the search results, select **View Item Basic** and then click **OK**. The action is added to the Actions table.
7. Click **Save and Close** to close the Edit Item Class page.
8. On the Manage Item Class page, click **Done**.

Create Data Security Policy For Viewing Invoices and Accessing Invoice List of Values

If you want to automatically generate activities from invoices or want to manually link sustainability activities to payables invoices, then you must grant the invoice data access to a user who is responsible for creating activities in Oracle Fusion Cloud Sustainability.

This access lets the user associate the activity with an invoice or drill into an invoice from an activity. This is the user who is assigned a role that includes the Generate Sustainability Activity from Payables Invoice (SUS_GENERATE_ACTIVITIES_FROM_INVOICES) privilege.

Before you start

To perform this procedure, you must be assigned a role that is based on the IT Security Manager job role.

Here's what to do

1. Navigate to **Tools > Security Console**.
2. On the Roles page, click **Create Role** to create your own job role.
3. On the Create Role page, in the **Role Name** field, enter a role name such as **Invoice Data Access**. Specify values for the rest of the fields on the page such as Role Code and Role Category.
4. Navigate to the **Data Security Policies** train stop.
5. On the Data Security Policies page, click **Create Data Security Policy**.
6. In the Create Data Security Policy dialog box:
    - Enter a name for the policy. For example, **Grant on Invoices**.
    - In the Start Data field, a date is automatically assigned. Change this date if required.
    - In the **Data Resource** field, search for and select **Business Unit (FUN_ALL_BUSINESS_UNITS_V)**. This is the data resource for which you're defining the policy.
    - From the Data Set drop-down list, select **Select by instance set**.
    - From the Condition Name drop-down list, select **Access the business units for which the user is explicitly authorized.**
    - From the Actions drop-down list, select **Manage Payables Invoice**.
7. Click **OK**.
8. Navigate to the **Summary** train stop.
9. Click **Save and Close**.
10. In the Setup and Maintenance work area, go to the **Manage Business Unit Data Access for Users** or **Manage Data Access for Users** task in the Users and Security functional area.

11. On the Manage Data Access for Users page, ensure that the value of the **Security Context** drop-down list is set to **Business Unit**.
12. In the Search Results section, click the **Create** icon.
13. In the Create Data Access for Users dialog box:
    a. From the User Name drop-down list, select the user to whom you need to grant access.
    b. From the Role drop-down list, select **Invoice Data Access**.
    c. From the Security Context drop-down list, select **Business unit**.
    d. From the Security Context Value drop-down list, select your business unit.
    e. Click **Save and Close**.
14. On the Manage Data Access for Users page, verify that the user access is granted, and then click **Done**.
15. Assign the job role that you created (for example, Invoice Data Access) to the user who is assigned a role that has the privileges of the predefined Sustainability Analyst role to create activities.

3 Rapid Implementation

Rapid Implementation Overview

Oracle provides a configuration package with sample data for performing a rapid implementation. This package is intended for use only in a test environment to gain a quick start, enabling you to explore Oracle Fusion Cloud Sustainability and learn about its functionality hands-on.

The rapid implementation package is a collection of setup data provided by Oracle. You can readily import this package into your Fusion instance by using the **Import** option available in the Setup and Maintenance work area.

> **Note:** This package will work only if you've enabled the Procurement offering.

You can use the package in the following scenarios:

- You want to explore Oracle Sustainability and learn about its functionality hands-on.
- You want to adopt a ready-to-use configuration and build on it to accommodate your requirements.

After you download and import the configuration package into your environment, data for the following setup tasks is automatically created in Oracle Sustainability:

- Manage Sustainability Value Sets
- Manage Sustainability Descriptive Flexfields
- Manage Activity Types
- Manage Global Warming Potentials

In addition, you must do the following:

- Load emission factor mappings: Oracle provides a data sheet for uploading emission factor mappings. This data sheet contains only a small subset of the emission factors listed in the accelerator spreadsheet. Oracle recommends that you use the data sheet only for testing purposes as it only contains sample data.
- Create sustainability ledgers: You can do this by creating ledgers directly in Oracle Sustainability.
- Set up the profile values for the **CO2e Reporting UOM** and **Currency Conversion Rate Type** profile options.

Next, verify the setup data in your test environment. With some additional steps and modifications that meet your business needs, you can promote the rapid implementation package (excluding the emission factor mapping data sheet) to get started with production configuration.

> **CAUTION:** When you create and post activities by using the preconfigured setup data, you will not be able to completely remove or modify the underlying setup data from your instance. Therefore, Oracle recommends that before you create and post activities, plan and only retain data that aligns with your implementation and delete the rest. Otherwise, prepare to refresh your test instance and perform a regular implementation as described in this playbook.

Import the Configuration Package

Import the rapid implementation configuration package into your environment by using the Import option in the Setup and Maintenance work area.

Before you start

- Download the rapid implementation package (Rapid Implementation Package.zip) from *Oracle Cloud Customer Connect*.
- Ensure that you've enabled the Sustainability functional area for your offering.
- Ensure that you're assigned a role that has all the privileges of the predefined Sustainability Application Administrator role and the Export Import Functional Setups User abstract role.

To import the rapid implementation package:

1. In the Setup and Maintenance work area for **Procurement** offering, select **Import** from the **Actions** menu corresponding to the Sustainability functional area, and then click **Create New**.
2. In the Warning dialog box that's displayed, click **Yes**.
3. On the Import Offering Setup Data page, click **Choose File** and select the previously downloaded rapid implementation package.
4. Expand the Import Options section, select or deselect any check boxes if needed and then click **Submit**.
5. In the Confirmation dialog box, click **OK**.
6. Monitor the import process by clicking **Actions > Import > View** all corresponding to the Sustainability functional area.
7. Monitor the import process until it completes successfully.

   Data for setup tasks including value sets, descriptive flexfields, activity types, and global warming potentials are created and available in Oracle Sustainability.

Related Topics

Load Emission Factor Mappings

Oracle provides a data sheet for emission factor mappings with prepopulated emission factors corresponding to the activity types in the rapid implementation configuration package. These prepopulated emission factors are only a small subset of the ones available in the accelerator spreadsheet for emission factor mappings.

1. Download the data sheet (Emission Factor Mappings Data Sheet.xlsx) from *Oracle Cloud Customer Connect*.
2. Generate an Oracle Visual Builder Add-in for Excel spreadsheet for emission factor mappings.
3. Copy data from the data sheet into the VB Add-in spreadsheet.
4. In the VB Add-in spreadsheet, update the UOMs and currencies to match the ones configured in your Fusion instance.
5. In the Ranking column, assign relative ranking to the emission factors that you want to use.
6. Upload the emission factors data to Oracle Sustainability.

Related Topics

- Generate Emission Factor Mappings Spreadsheet

Configure Sustainability Ledgers

You must configure sustainability ledgers by creating a ledger, associating an accounting calendar, assigning one or more legal entities, and retrieving periods.

Related Topics

- Create Sustainability Ledgers
- Retrieve Future Periods

Review and Configure the Setup

Review all the setup data that's imported from the rapid implementation package.

Before you start

Ensure that you're assigned a role that has all the privileges of the predefined Sustainability Application Administrator role.

1. In the Setup and Maintenance work area, go to each of the following tasks in the Sustainability functional area to review the corresponding data that was imported and modify them as needed:
    a. **Manage Activity Types**

       Delete any activity types that you don't intend to use.
    b. **Manage Sustainability Descriptive Flexfields**

       Disable context-sensitive segments and delete contexts corresponding to the activity types that you deleted in the preceding step.
    c. **Manage Sustainability Value Sets**

       Disable any value sets or their values that you don't intend to use.
    d. **Manage Global Warming Potentials**

       Delete any global warming potentials that you don't intend to use.
2. In the Sustainability Measure Types and Sustainability Emission Types lookups, disable any measure types or emission types, respectively, that you don't intend to use.
3. If the preconfigured setup data does not meet your organization's business needs, then make adjustments as needed directly in the application.
4. Set values for the CO_2e Reporting UOM (ORA_SUS_CO2E_REPORTING_UOM) and Currency Conversion Rate Type (ORA_SUS_CUR_CONVERSION_RATE_TYPE) profile options.
5. Configure the search index to enable the activity type attributes to be visible in the search results on the Sustainability Activities page.

6. Create a few activities in your environment. While doing so, ensure that the attributes used while creating activities match the attributes on the emission factors provided in the data sheet so that calculation of emissions can happen.
7. Conduct thorough testing to ensure that the setup functions correctly in your business environment. For example, you can calculate emissions, validate and post your activities to a sustainability ledger, and close a period.

> **CAUTION:** Before you create and post activities, review all preconfigured setup data and delete any data that doesn't meet your business needs. After posting activities, if you don't intend to continue with the setup any more, then you'll not be able to delete it from your environment.

Related Topics

- Set Profile Options
- Configure Search Indexes

4 Regular Implementation

Plan and Prepare

Oracle recommends that you prepare for regular implementation by planning for these tasks.

1. Prepare your activity types and related data as follows:
    a. Review the **Activity Types** accelerator spreadsheet and remove, update, or add any activity types and associated measure and emission types that are specific to your implementation.
    b. Review the **Value Sets** accelerator spreadsheet containing the values that the activity type attributes can have and remove any unwanted entries from the spreadsheet. In addition, add or update value sets and values for any new or updated activity types and type attributes that you created or modified in the previous step.

    > **Note:**
    > - Load only those entries that you intend to use to keep the data to a minimum.
    > - Activity type attributes are configured using the Manage Descriptive Flexfield setup task during implementation.

2. Identify and, if necessary, configure the UOMs that will be used for sustainability activities and emission factors as follows:
    a. Ensure that you've configured any required intraclass UOM conversions.

    For example, if you have activities that measure fuel in `gallons`, but your emission factors have `liters` in the denominator, then ensure that you have configured a conversion factor from `gallons` to `liters` in your Fusion instance.
    b. Ensure that you've configured any required interclass UOM conversions for inventory items.

    For example, if you have an emission factor that is based on the quantity of an item (for example, a product carbon footprint), and you have interclass UOM conversions configured on the item, then the calculator will perform a configured interclass UOM conversion to align the UOM of the measure on the activity with the denominator UOM of the emission factor.
    c. To avoid rounding issues in emission calculations, set up the UOM conversion factors in Inventory with a high degree of decimal precision as emission factors might have many decimal digits. The calculator uses the following formula for emission calculations:

    CO_2e `emission = emission * GWP * UOM conversion factor rounded to precision as set up in the Quantity Decimal Precision (INV_QUANTITY_DECIMAL_PRECISION) profile option`

    You can set a value for the **INV_QUANTITY_DECIMAL_PRECISION** profile option by searching for and selecting the **Manage Administrator Profile Values** task in the Setup and Maintenance work area.
3. Review the **Global Warming Potentials** accelerator spreadsheet and make any changes if required.

4. In the **Emission Factor Mappings** accelerator spreadsheet:
    - Configure emission factors. The calculator will perform any interclass and intraclass UOM conversions, if required, assuming the required conversion factors are set up in your Fusion instance. Note that interclass conversion will be performed only if the activity references an item.
    - Update the UOM and Currency values to match with the ones configured in your Fusion instance.
    - Oracle doesn't provide emission factors for CO_2e of component gases such as CH_4 and N_2O. To model the emission factors for CO_2e of component gases from sources like the UK government, create a new emission type to represent the CO_2e of the component gas (for example, CO_2e of Methane, CO_2e of Nitrous Oxide) in the Sustainability Emission Types (ORA_SUS_EMISSION_TYPES) lookup and set the corresponding global warming potential (GWP) value to **1**. Then, ensure that you associate the newly created emission types with the respective activity types. You can now upload CO_2e emission factor mappings for these emission types.
5. Oracle recommends that you read the United States Environmental Protection Agency (US EPA) or UK government guidance on reporting Biogenic CO_2 emissions. If you want to align with the guidance by omitting Biogenic CO_2 from any of the emission scopes, then add Biogenic CO_2 as an emission type for any activity type where you're going to burn biomass fuels. Then, change the emission type in the emission factor mappings spreadsheet for those fuels from CO_2 to Biogenic CO_2. The calculator omits Biogenic CO_2 from total CO_2e. This behavior requires that you don't configure a GWP for Biogenic CO_2. Note that Oracle doesn't include one in the accelerator spreadsheet for GWPs.

Configure Sustainability Ledgers

Create and configure sustainability ledgers for reporting sustainability data.

You must first setup the sustainability ledger and then retrieve future periods to start creating activity records for the ledger as follows:

1. *Create Sustainability Ledgers*
2. *Retrieve Future Periods*

Create Sustainability Ledgers

You can create sustainability ledgers by using the Manage Sustainability Ledgers task.

Before you start

To perform this procedure, you must be assigned a role to access the Manage Sustainability Ledgers task.

1. In the Setup and Maintenance work area, go to the **Manage Sustainability Ledgers** task:
    - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
    - Functional Area: Sustainability
2. On the Sustainability Ledgers page, click **Create Sustainability Ledger**.
3. In the New ledger drawer, enter the ledger name and select the accounting calendar. Optionally, enter a description.
4. From the **First Period** drop-down list, select the first period.
5. From the **Legal Entities** drop-down list, select one or more legal entities to assign to the ledger.
6. Click **Create**.

Note:

- If your legal entity names aren't unique, then on the Sustainability Activities page, you'll experience issues when selecting a legal entity name that isn't unique.
- Oracle General Ledger and Sustainability can share the same accounting calendar, but the period close process happens independently. You can close your Financials period, and keep your Sustainability period open, and then close it at a later date.
- Use the first period to signify the period from which you'll start using Oracle Sustainability to record your sustainability activities. For example, even if you're in the middle of a fiscal or calendar year, you might want to start recording back-dated activities from the beginning of the year to simplify your annual reporting.

Retrieve Future Periods

After the ledger is configured, you can retrieve future periods from the accounting calendar starting from the first period assigned to the Sustainability Ledger. These are your sustainability periods, and you can manage their statuses within Oracle Fusion Cloud Sustainability.

Before you start

To perform this procedure, you must be assigned a role that has all the privileges of the predefined Sustainability Controller role.

You retrieve future periods from the Periods tab on the Sustainability Activities page as follows:

1. Click **Navigator > Sustainability > Sustainability Activities**.
2. Click the **Periods** tab.
3. On the Sustainability Periods page, select your sustainability ledger from which you must retrieve periods.
4. Click **Retrieve Future Periods**.

   All periods starting from the first period specified on the ledger with a default status of Open are retrieved and displayed in the Periods section.

The Periods section displays all the periods retrieved from the accounting calendar with its details. When more periods are added to the accounting calendar, you can use the Periods page again to retrieve the additional periods by clicking **Retrieve Future Periods**.

Review and Edit Sustainability Lookups

Use the **Manage Sustainability Lookups** task to add or edit values of standard lookups that are available in Oracle Fusion Cloud Sustainability. Editing these lookups is optional.

Oracle Sustainability comes with a set of predefined lookups. Depending on the configuration level of lookups, you can edit or remove existing lookups, or add new ones. Oracle recommends that you review the lookups and edit them if required. Otherwise, skip this topic.

Lookup Type	Meaning	Description	Lookup Configuration Level
ORA_SUS_ACT_PROCESS_MODE	Modes for Process Sustainability Activities Scheduled Process	Processing modes for the Process Sustainability Activities scheduled process. Values are **Post to ledger** and **Validate**.	System
ORA_SUS_ACT_STATUS	Sustainability Activity Status	Status of the activity record. Values are **Draft**, **Posted**, and **Canceled**.	System
ORA_SUS_CAL_MODE	Calculation Mode	Calculation mode. Values are **Using matched factors**, **Manual entry of factors**, and **Manual entry of emissions**.	System
ORA_SUS_DATA_QUALITY	Data Quality Indicator	The accuracy of an activity's measures or the emission factors used to calculate emissions. Predefined values are **High confidence**, **Moderate confidence**, and **Low confidence**.	User
ORA_SUS_EMISSION_TYPES	Sustainability Emission Types	Greenhouse gases and other substances such as air pollutants that are emitted by activities such as fuel combustion. Several predefined emission types such as **Carbon dioxide**, **Methane**, and **Nitrous oxide**.	User
ORA_SUS_ENTRY_TYPE	Entry Type	Type of entry for the record. Values are **Standard** and **Adjustment**.	System
ORA_SUS_MEASURE_TYPES	Sustainability Measure Types	Measure types associated with an activity. Predefined values are **Quantity**, **Distance**, and **Amount**.	User
ORA_SUS_MSG_LEVEL_CODE	Validation Message Level	Level of severity for a validation message. For example, the message could convey an error, a warning, or information.	System
ORA_SUS_MSG_SUM_CODE	Validation Message Summary	Summary of the validation message.	System
ORA_SUS_PERIOD_STATUSES	Sustainability Period Status	Statuses of sustainability Periods. For example, **Open** or **Closed**.	System
ORA_SUS_SCOPES	Scope	Emission scopes defined by the Greenhouse Gas Protocol. Values are **Scope 1**, **Scope 2 location-based**, **Scope 2 market-based**, and **Scope 3**.	System
ORA_SUS_SCOPE_CATEGORIES	Scope Category	Category under which scope 3 emissions are reported. The 15 categories defined by the Greenhouse Gas Protocol are provided – for example, **Purchased goods and services** and **Waste generated in operations**.	System
ORA_SUS_SOURCE_TYPE	Sustainability Activity Source	Source of the activity record. Predefined values are **Manual**	Extension

Lookup Type	Meaning	Description	Lookup Configuration Level
		entry, **External**, **Payable Invoice**, and **File-based data import**.	

Before you start

To perform this procedure, you must be assigned a role to access the Manage Sustainability Lookups task.

To review and edit lookups:

1. In the Setup and Maintenance work area, go to the **Manage Sustainability Lookups** task:
    - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
    - Functional Area: Sustainability
2. On the Manage Sustainability Lookups page, click **Search**.

    All the standard lookups that come predefined with Oracle Sustainability are displayed.
3. Examine the search results to review the lookups.
4. Select the lookup type you want to review or edit. The corresponding lookup codes are displayed in the section following the search results.
5. (Optional) Edit the lookup as desired, and then click **Save and Close**.

Tip: If you plan to use invoice classification, then in the Sustainability Measure Types lookup, don't disable or change the start or end dates for the "Amount" and "Quantity" measure types.

Configure Sustainability Descriptive Flexfields

There are two descriptive flexfields that are associated with the setup for Oracle Fusion Cloud Sustainability.

- **Activity:** This descriptive flexfield lets you extend the data attributes that you want to capture on activities. For example, you can add an Activity descriptive flexfield to capture the facility associated with an activity. Configuring the Activity descriptive flexfield is optional.
- **Emission Factor Map:** To model an activity type in Oracle Sustainability, you must configure the activity type as a descriptive flexfield context and define the associated activity type attributes as its context-sensitive segments. For each attribute, you also need to define and populate the set of valid values.

  Configuring the Emission Factor Map descriptive flexfield is required.

Configure Activity Descriptive Flexfields

Configure the Activity descriptive flexfield if you want to add additional attributes for capturing activity data.

To configure the Activity descriptive flexfield, see *Overview of Descriptive Flexfields*.

Configure the Emission Factor Map Descriptive Flexfields

To model activity types in Oracle Fusion Cloud Sustainability, you must configure the Emission Factor Map descriptive flexfield.

For each activity type listed in the Activity Types accelerator spreadsheet, create a descriptive flexfield context. And for each of these activity types, identify the corresponding activity type attributes (as listed in the following table) and create them as context-sensitive segments. Then, create and populate value sets for these context-sensitive segments.

The following table lists the most common activity types and possible attributes that you can configure using descriptive flexfields. All these activity types and corresponding attributes are included in the accelerator spreadsheets as well.

Activity Types and its Attributes

Use Case	Activity Type	Activity Type Attributes
Capture fuel consumption data and calculate Scope 1 stationary combustion emissions.	Stationary combustion	Fuel Type
Capture fuel or energy consumption and distance traveled to calculate Scope 1 mobile combustion emissions.	Mobile combustion	• Energy Source • Vehicle Type • Percent Laden
Capture energy consumption and calculate Scope 2 emissions.	Purchased Energy	• Grid Region • Energy Type
Capture data on purchases of goods and services.	Purchased Goods and Services	Spend Type
Capture water consumption.	Water Withdrawal	Water Source Type
Capture waste generated	Waste Generated in Operations	• Waste Type • Waste Disposal Method • Handling Method

For example, configure the Stationary Combustion activity type as a context for the Emission Factor Map descriptive flexfield. Then, define Fuel Type as a context-sensitive segment of Stationary Combustion. In addition, create a value set for Fuel Type and populate fuel type values. The following is the sequence of steps for configuring the Emission Factor Map descriptive flexfield:

1. *Create and Populate Sustainability Value Sets*

   For each attribute of the activity type, create a value set and populate its value.

2. *Create Contexts and Context-Sensitive Segments*

   Create the activity type as the context and its attributes as context-sensitive segments.
3. *Deploy the Descriptive Flexfield*

   Deploy the descriptive flexfield to view the changes.
4. *Configure Search Indexes*

   Configure the search index to enable the activity type attributes to be displayed in search results.

Create and Populate Sustainability Value Sets

For each attribute of an activity type, you must create a value set and then populate its values.

Note: To perform this procedure, you must be assigned a role to access the Manage Sustainability Value Sets task.

1. In the Setup and Maintenance work area, go to the **Manage Sustainability Value Sets** task:
   - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
   - Functional Area: Sustainability
2. On the Manage Sustainability Value Sets page, click the plus icon to create a value set.
3. On the Create Value Set page, enter the required details. The following steps provide sample values for creating a value set for the Fuel Type attribute:
   a. Enter a value set code. For example, **FUEL_TYPE**.
   b. Optionally, enter a description.
   c. In the Module field, enter **Environmental Activities Management**.
   d. From the Validation Type drop-down list, select **Independent**.

      Use only the validation types **Table** or **Independent**. If you select Independent, then ensure to populate the acceptable values in the Manage Values page.
   e. From the Value Data Type drop-down list, select **Character**.
   f. In the Definition section, from the Value Subtype drop-down list, select **Text**.
   g. In the Maximum Length field, enter **150**.
4. Click **Save**.
5. On the Create Value Set page, click **Manage Values**.
6. On the Manage Values page, click the plus icon to create a value.
7. In the newly added row, enter the desired values. If a value exceeds the 150-character limit, then capture the extra information in the Description field. Leave the Description field blank unless it differs from the value.
8. Repeat Steps 6 and 7 to add more values. For example, for the Fuel Type value set, you can enter the values Gasoline, Crude Oil, and Diesel.
9. Click **Save and Close** twice to save the values and its value set.

Tip:

- To create and populate value sets in bulk, extract and use the published template for value sets (Value Set-Published.xlsx) available on *Oracle Cloud Customer Connect*.
- Before using this spreadsheet, download and install Oracle Visual Builder Add-in for Excel from here: *https://www.oracle.com/downloads/cloud/visual-builder-addin-downloads.html*.

Create Contexts and Context-Sensitive Segments

Create the activity type (for example, Stationary Combustion) as the context for the Emission Factor Map descriptive Flexfield. Create the attributes (for example, Fuel Type) of the activity type as the context-sensitive segment.

Before you start

To perform this procedure, you must be assigned a role to access the Manage Sustainability Descriptive Flexfields task.

1. In the Setup and Maintenance work area, go to the **Manage Sustainability Descriptive Flexfields** task:
   - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
   - Functional Area: Sustainability
2. Click the **Manage Sustainability Descriptive Flexfields** task.
3. On the Manage Sustainability Descriptive Flexfields page, click **Search**.
4. From the search results, select the row with Emission Factor Map, and then click the **Edit** icon.
5. On the Edit Descriptive Flexfield: Emission Factor Map page, in the Context Segment section, select **BI Enabled**.
6. Click **Manage Contexts**.
7. On the Manage Contexts page, click the **Create** icon.
8. On the Create Context page, enter the required details to create the activity type as a context. The following steps provide sample values for creating a context for the Stationary Combustion activity type:
   a. In the **Display Name** field, enter the name of the activity type. For example, **Stationary Combustion**. The Context Code and API name fields are automatically populated.

      Ensure that the display name is less than or equal to 30 characters, including spaces. The context code, which is generated automatically based on the display name, must not exceed 30 characters to avoid problems later if you plan to upload data using File-Based Data Import (FBDI) or use invoice classification. After the context code is generated, you can't update it, but you can update the display name.
   b. Ensure that the **Enabled** checkbox is selected.
9. Click **Save**.
10. In the Context Sensitive Segments section, click the Create icon to add the attribute of the activity type as a context-sensitive segment.
11. On the Create Segment page, enter the required details to create the attribute as a context-sensitive attribute. The following steps provide sample values for creating a context-sensitive segment for the Fuel Type attribute of the Stationary Combustion context value:

    > **Note:** If you're using a context that is provided in the Emission Factor Mapping accelerator spreadsheet and has more than one context-sensitive segment, then define the context-sensitive segments in the same sequence as it appears in the Emission Factor Mapping accelerator spreadsheet. This will ease the process of copying data into Oracle Visual Builder Add-in for Excel spreadsheets later.

    a. In the **Name** field, enter the name of the attribute (for example **Fuel Type**). The Code and API Name fields are automatically populated.

       Ensure that the name is less than or equal to 30 characters, including spaces. The Code, which is generated automatically based on the name, must not exceed 30 characters to avoid problems later if you plan to upload data using File-Based Data Import (FBDI) or use invoice classification. After the code is generated, you can't update it, but you can update the display name.

       > **Note:** Ensure that the value in the Name and Code fields are unique across all activity type attributes, across all contexts.

    b. In the Column Assignment section, from the **Data Type** drop-down list, select **Character**.

c. The Table Column is automatically populated with the next available internal table column, for example, EFM_ATTRIBUTE1, EFM_ATTRIBUTE2, and so on. Don't change this value.
d. In the Validation section, from the **Value Set** drop-down list, select the value set that was created in one of the earlier steps. For example, **FUEL_TYPE**.
e. In the Display Properties section, the values for the Prompt and Display Type fields are autopopulated.
f. In the Business Intelligence section, select **BI Enabled**.
g. Click **Save** and then **Save and Close**.
The context-sensitive segment and the context are saved.

12. (Optional) Repeat Steps 10 and 11 to add more attributes as context-sensitive segments.
13. Click **Save and Close**.
14. Repeat steps 7 through 13 to add more contexts and context-sensitive segments.

Deploy the Descriptive Flexfield

After creating contexts and context-sensitive segments, you must deploy the changes. After you deploy the Emission Factor Map descriptive flexfield, you can view the changes in the Oracle Sustainability application.

To deploy the descriptive flexfield:

1. On the Manage Sustainability Descriptive Flexfields page, click **Search**.
2. From the search results, select the row with Emission Factor Map, and then click the **Deploy Flexfield**.
The deployment progress is displayed.
3. In the EMISSION_FACTOR_MAP Confirmation dialog box, when the deployment completes, click **OK**.
The Deployment Status column for this descriptive flexfield displays a green check mark.
4. Click **Done**.

Configure Search Indexes

After deploying the descriptive flexfield, you must update the search index to enable the activity type attributes to be visible in the search results on the Sustainability Activities and Emission Factor Mappings page.

Before you start

To perform this procedure, you must be assigned a role that includes the Grant Search Framework Manager Permissions (FND_SEARCH_FWK_MGR_PRIV) privilege.

To update the search index, perform the following steps on each instance where you plan to use Oracle Sustainability:

1. In the Setup and Maintenance work area, go to the **Manage Search Indexes** task:
    - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
    - Functional Area: Application Extensions
2. On the Manage Search Index page, if you see the "No index" message, then wait for a couple of minutes for the indexes to load.
3. Search for **fa-prc**.
4. From the search results, scroll down and locate the fa-prc-sus-activities index, and then click the **Configure** icon against it.
5. On the Edit Index Activities page, scroll to and expand **EmissionFactorMapDFF**.
6. Expand each updated descriptive flexfield context. Then, expand each context-sensitive segment, and select the **Value** and **Description** check boxes.
7. Click **Save**. Then click **Cancel** to go back to the Manage Search Indexes page.

8. Refresh the Manage Search Indexes page. When the indexes are listed, search for **fa-prc** again. From the search results, scroll down and locate the fa-prc-sus-activities index.
9. Click **Publish** for the fa-prc-sus-activities index to publish the changes.

   A message confirming that a background indexing process has been submitted is displayed. After the process is completed, the values of the updated attributes will be visible in the Activity Type Attributes column in the Sustainability Activities page.
10. Repeat Steps 4 through 10 to update the search index for the Emission Factor Mappings page. While doing so, ensure to replace all instances of "fa-prc-sus-activities" with **fa-prc-sus-efmaps**.

Tip: If the Publish button is not enabled, then depending on whether you are updating the search index for the Sustainability Activities page or Emission Factor Mappings page, run the “ESS job to create index definition and perform initial ingest to OSCS” scheduled process with the **Index Name to Reingest** parameter set to **fa-prc-sus-activities** or **fa-prc-sus-efmaps**, respectively. Then, try publishing the index.

Create Activity Types

After you've configured the Emission Factor Map descriptive flexfields, you must define the measure types and emission types that should be associated with the activity type.

Before you start

To perform this procedure, you must be assigned a role to access the Manage Activity Types task.

You can create an activity type as follows:

1. In the Setup and Maintenance work area, go to the **Manage Activity Types** task:
   - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
   - Functional Area: Sustainability
2. On the Activity Types page, click **Add Activity Type**.
3. In the New activity type drawer, from the **Activity Type** drop-down list, select the activity type. The context values that you had created in *Create Contexts and Context-Sensitive Segments* will appear as available activity types for measure type and emission type association. The Description field is automatically populated based on the value that you specified while configuring the context in the Emission Factor Map descriptive flexfield. Start date if not changed, defaults to the system date.
4. From the Scope drop-down list, select a scope for the activity type. If you select Scope 3, then you must specify the scope category.
5. Select one or more measure types and emission types from the respective drop-down lists.
6. Click **Create**. Or, click **Create and Add Another** to create more than one activity type.

   The activity type is created.

Tip: To stop using an activity type that has already been used in activities, set its end date to the last date on which it should be active. Don’t disable the corresponding descriptive flexfield context unless the activity type was created incorrectly or hasn't been used.

Set Profile Options

Set profile options to configure and control aspects of the functionality of Oracle Fusion Cloud Sustainability.

The following table lists the profile options for Oracle Sustainability for which you might want to set values.

Oracle Sustainability Profile Options

Profile Option Code	Profile Display Name	Description	Usage	Level
ORA_SUS_ITEM_VALIDATION_ORG	Obsolete:Item Master Validation Organization	Obsolete. Use ORA_SUS_ITEM_VALIDATION_ORG_CODE profile instead	This profile option is no longer supported. Use the Item Validation Organization (ORA_SUS_ITEM_VALIDATION_ORG_CODE) profile option instead.	Not applicable
ORA_SUS_ITEM_VALIDATION_ORG_CODE	Item Validation Organization	Specify the item's master validation organization.	Only items enabled in the specified validation organization can be referenced on an activity or emission factor mapping. Setting a value for this profile option is required if you want to create activities referencing an inventory item. See *What's new Update for 25A: New Profile Option for Item Validation Organization* for more details.	Site
ORA_SUS_CO2E_REPORTING_UOM	CO_2e Reporting UOM	Specify the reporting unit of measurement for CO_2e.	The calculator will convert carbon dioxide equivalent (CO_2e) to this common unit of measure for reporting and roll up across activities. Note that Oracle recommends not to change this profile value after creating activities.	Site
ORA_SUS_CONDENSED_DECIMAL_PRECISION	Condensed Decimal Precision	Controls the decimal display of attributes that require a relatively lower precision. These attributes include Measures, CO2e, and Total CO2e on the Sustainability Activities page.	The default value of this profile option is 5. See *What's new Update for 25A: Configure Decimal Precision on Emission Factor and Emission Fields* for more details about this profile option	Site

Profile Option Code	Profile Display Name	Description	Usage	Level
ORA_SUS_EXPANDED_DECIMAL_PRECISION	Expanded Decimal Precision	Controls the decimal display of attributes that require a relatively higher precision. These attributes include Factor and Emissions on Sustainability pages in the application.	The default value of this profile option is 5. See *What's new Update for 25A: Configure Decimal Precision on Emission Factor and Emission Fields* for more details about this profile option.	Site
ORA_SUS_CUR_CONVERSION_RATE_TYPE	Currency Conversion Rate Type	Specify the currency conversion rate type.	The rate type is used when converting the measure currency to the emission factor denominator currency with a currency conversion rate based on the activity date. When emissions are calculated using spend-based emission factors and the currency in the activity is different from that of the emission factor denominator, currency conversion is applied for the emission calculation. Do not select **User** as the profile value as it is not supported.	Site
ORA_SUS_DEFAULT_ACTIVITY_CLASSIFICATION	Default Activity Type for Invoice Classification	Specifies the activity type to be assigned to sustainability activities when no classification rules apply for a payables invoice or the classification on the rule isn't valid.	This profile option is used in the “Generate Sustainability Activities from Payables Invoices” scheduled process when creating an activity for an invoice distribution that doesn't qualify for any active invoice classification rules. Because most activities from Payables Invoices would be classified as Purchased Goods and Services, Oracle recommends that you choose the Purchased Goods and Services activity type for this profile.	Site
ORA_SUS_FBDI_COMMIT_SIZE	Commit Size for Import Sustainability Activities Batch Process	Specify the number of activities that will be taken for processing together when importing sustainability activities.	Oracle recommends not to set a value for this profile option. The default value for this profile option is 100000.	Site

Profile Option Code	Profile Display Name	Description	Usage	Level
ORA_FND_SEARCH_EXT_ENABLED	Enable/Disable Search Ext Framework	This profile is used to check if Search Extension is enabled.	Controls the search capability on the Sustainability Activities and Emission Factor Mappings pages. Set the profile value to **Yes**.	Site

Note: To set profile values for the preceding profile options, you must be assigned a role to access the Manage Sustainability Profile Options and Manage Administrator Profile Values tasks.

1. To search for all profile options listed in the preceding table except the ORA_FND_SEARCH_EXT_ENABLED profile option:
    a. In the Setup and Maintenance work area, go to the **Manage Sustainability Profile Options** task:
        - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
        - Functional Area: Sustainability
    b. On the Manage Sustainability Profile Options page, click **Search**.
    c. From the search results, look for and select the profile option code or profile option display name for which you want to set profile values.
2. To search for the ORA_FND_SEARCH_EXT_ENABLED profile option listed in the preceding table:
    a. In the Setup and Maintenance work area, search for and select the **Manage Administrator Profile Values** task.
    b. On the Manage Administrator Profile Values page, search for and select the **ORA_FND_SEARCH_EXT_ENABLED** profile option code.
3. In the Profile Values section, set the value as recommended in the Usage column of the preceding table.
4. Click **Save**.

Create Global Warming Potentials

Oracle Fusion Cloud Sustainability uses Global Warming Potentials (GWPs) to calculate CO_2e emissions for greenhouse gases other than CO_2 that are associated with the activity types you've defined.

Before you start

To perform this procedure, you must be assigned a role to access the Manage Global Warming Potentials task.

1. In the Setup and Maintenance work area, go to the **Manage Global Warming Potentials** task:
    - Offering: Manufacturing and Supply Chain Materials Management, Product Management, or Procurement
    - Functional Area: Sustainability
2. On the Global Warming Potentials page, click **Add GWP**.
3. In the New GWP drawer, select an emission type and optionally enter a description.

    Note: If you plan to use the CO_2 and CO_2e emission types, then ensure to set their GWP values to **1**.

4. In the **GWP** field, enter the GWP value corresponding to the emission type.

5. Enter a start date. The default value is the system date.
6. Click **Create**. Or, click **Create and Add Another** to create more GWPs.

   The GWP is created.

Configure Emission Factor Mappings

You can either create emission factor mappings directly in Oracle Fusion Cloud Sustainability or upload them from an Oracle Visual Builder (VB) Add-in for Excel spreadsheet that you generate.

If you have only a few emission factor mappings (for example, from your suppliers) to use, then you can quickly create them in Oracle Sustainability by using the Emission Factor Mappings page. You can access the Emission Factor Mappings page from **Navigator > Sustainability > Sustainability Activities > Emission Factor Mappings** tab.

If you want to upload emission factor mappings in bulk, then use the VB Add-in for Excel spreadsheet. Oracle doesn't provide a predesigned and published Oracle Visual Builder (VB) Add-in for Excel spreadsheet for emission factor mappings because the spreadsheet includes columns for activity type attributes that are specific to your organization. Therefore, you'll need to design the layout as per your business requirements, and then populate and upload emission factor mappings as follows:

- *Generate Emission Factor Mappings Spreadsheet*
- *Populate and Upload Emission Factor Mappings*

Related Topics

- What's new for Update 25A: Create and Manage Emission Factor Mappings

Generate Emission Factor Mappings Spreadsheet

You must now generate Oracle Visual Builder (VB) Add-in for Excel spreadsheets for every activity type that you had previously defined while performing the procedure described in *Configure the Emission Factor Map Descriptive Flexfields*.

Before you start

Download and install Oracle Visual Builder Add-in for Excel from here: *https://www.oracle.com/downloads/cloud/visual-builder-addin-downloads.html*.

1. Open a blank Microsoft Excel workbook with Oracle Visual Builder Add-in for Excel installed.
2. Create a catalog for emission factor mappings as follows:
   a. On the Oracle Visual Builder tab, click **Manage Catalogs**.
   b. In the Manage Business Object Catalogs dialog box, click **Add**, and then select **Import Business Object Catalog From Service Metadata**.
   c. In the Business Object Catalog Editor, enter the following URL in the Web address field:

      https://HOST_NAME/fscmRestApi/resources/11.13.18.05/emissionFactorMappings/describe

      In the URL, replace HOST_NAME with the host name of your Fusion instance.
   d. Click **Next**.
   e. On the Sign In page, enter the sign in credentials for the user who has been assigned a role that includes the Manage Emission Factor (SUS_MANAGE_EMISSION_FACTORS_PRIV) privilege.

A message confirming successful creation of the catalog is displayed.

f. Review the catalog details and then click **Finish**.
g. On the Manage Business Object Catalogs dialog box, click **Done**.

3. Create a new layout for emission factor mappings as follows:
   a. On the Oracle Visual Builder tab, click **Designer**.
   b. In the New Layout Setup dialog box, ensure that the emissionFactorMappings catalog is selected and click **Next**.
   c. Select the **Emission Factor Mappings** business object and click **Next**.
   d. Select the **Table Layout** option and click **Next**.
   e. Select the **Emission Factor Map DFF** checkbox and click **Next**.
   f. Confirm the details of the new layout and click **Finish**.

   The spreadsheet is populated with all columns from the REST API.
4. In the Layout Designer for your table, choose the columns that must appear in the spreadsheet as follows:
   a. On the **Columns** tab, click Manage Columns (+) .
   b. In the Table Column Manager dialog box, in the Business Object pane, deselect all fields that end with ID. Ensure that all entries under the **Emission Factor Map DFF** business object are selected.
   c. In the Selected Fields pane, look for and double-click the **Activity Type* (Emission Factor Map DFF)** field.

      The Business Object Fields Editor - __FLEX_Context dialog box is displayed.
   d. On the Polymorphic Information tab, select **Limit discriminator values** and the activity type for which you are creating emission factor mappings. Select the activity type (for example Stationary Combustion) that you set up in *Configure the Emission Factor Map Descriptive Flexfields*.
   e. Click **Done**.
   f. For the ease of copying over data from the accelerator spreadsheet subsequently, you might want the columns in the VB Add-in sheet to be consistent with the ones in the Emission Factor Mappings accelerator spreadsheet. To do so, on the Selected Fields pane, reorder the columns as required. Note that the **Activity Type* (Emission Factor Map DFF)** field will create a column for activity type and columns for its attributes.
   g. Click **Done**.
   h. Rename the spreadsheet tab to reflect the name of the activity type.
   i. Save the spreadsheet.
5. Configure the Query Parameter to download emission factor mappings for the activity type as follows:
   a. In the Layout Designer, click the **Query** tab.
   b. Click Add Search Parameter (+).

      The Search Parameter Editor is displayed.
   c. In the Parameter Name field, enter **q**, in the Parameter Value field, enter **EmissionFactorMapDFF.__FLEX_Context = 'ACTIVITY_TYPE** '. Here, replace ACTIVITY_TYPE with activity type name for which you are creating the emission factor mapping. For example, **Stationary Combustion**.
   d. Click **OK**.
6. Save the spreadsheet.

7. If you want to publish the template, then:
    a. On the Oracle Visual Builder tab, click **Publish**.
    b. In the Publish Workbook dialog box, browse to the location where you want to publish the template and also enter a name for the same. For example, **Stationary Combustion Emission Factor Mappings.xlsx**.
    c. Ensure that only the **Clear all authentication properties checkbox** is selected, and then click **Publish**.
8. If you want to generate VB Add-in sheets for additional activity types, then replace the Query Parameter and Polymorphic Information for the activity type and save a separate spreadsheet as follows:
    a. In the Layout Designer, on the Query tab, double-click the previously added search query and expression.
    b. In the Search Parameter Editor, in the Parameter Value field, replace the previous activity type name with the current activity type name. For example, if you're creating emission factor mappings for waste generated in operations activity type, then the value in the Parameter Value field is: **EmissionFactorMapDFF.__FLEX_Context = 'Waste Generated in Operations'**
    c. Ensure that the **Allow expressions in Parameter Value** checkbox is selected and click **OK**.
    d. On the Columns tab, double-click **Activity Type***. The Business Object Fields Editor - __FLEX_Context dialog box is displayed.
    e. On the Polymorphic Information tab, select the additional activity type and deselect any others. For example, select **Waste Generated in Operations** and deselect **Stationary Combustion**.
    f. Click **Done**.
    g. Rename the spreadsheet tab to reflect the name of the activity type.
    h. Save the spreadsheet by naming it to reflect the new activity name. For example, Waste Generated in Operations Emission Factor Mappings.xlsx.
    i. (Optional) Publish this template as described in Step 7.

Related Topics

- Documentation for Oracle Visual Builder Add-in for Excel

Populate and Upload Emission Factor Mappings

You must populate the Oracle Visual Builder Add-in for Excel spreadsheets that you created earlier for emission factor mappings and then upload the values to Oracle Fusion Cloud Sustainability.

1. Open the published VB Add-in spreadsheet for your activity type.

2. Copy data from the relevant tab in the Emission Factor Mappings accelerator spreadsheet that you prepared as follows:
    a. Open the Emission Factor Mappings accelerator spreadsheet and navigate to the sheet containing data for the activity type that you want to track.
    b. Copy the data from this sheet into the corresponding VB Add-in spreadsheet that you created and optionally published for your activity type.

    > **Note:**
    > - Copy only those entries that you intend to use to keep the data to a minimum.
    > - Upload any emission factor mappings from the accelerator spreadsheet for the most recent calendar year. End-date any older mappings to a date before the new mappings' start date.

    c. For any data validation errors, verify that the values for currencies, UOMs, and other attributes are configured in your environment.
    d. If you're using emission factors from multiple sources for an activity type and maintaining them in separate tabs of the accelerator spreadsheet, then copy data from these tabs into the same VB Add-in spreadsheet.
    e. Date in the Start Date column for an emission factor mapping in the VB Add-in spreadsheet defaults to the system date. With this default date, any activity whose start date is in the past will not be able to use the emission factor. Therefore, it’s important to enter start dates that are earlier than the dates of the expected activities.
    f. Enter values in the Ranking column as it's a required field. Assign the same ranking to all emission factors from the same source and rank the sources relative to one another. This will help you organize your emission factors and rankings. Assign rankings using numbers that leave room for inserting values in the future. For example, use a ranking sequence such as 100, 200, 300, and so on instead of a sequence like 1, 2, 3, and so on.
    g. Don’t populate the Change, Status, and Key columns. The application will automatically populate values in these columns.
    h. For the mobile combustion activity type, if you're using emission factors from United States Environmental Protection Agency (US EPA), then leave the Percent Laden column blank.
3. From the Oracle Visual Builder tab, click **Upload Changes**. The Upload dialog box showing the upload progress is displayed.
4. Verify that the Status column contains "Create Succeeded" for each populated record in the spreadsheet tab.
5. (Optional) To see all the emission factor mappings that have been uploaded, from the Oracle Visual Builder tab, click **Download Data**. The spreadsheet will be populated with the required data.

> **Tip:** When uploading emission factor mapping revisions, if the calculator finds two or more emission factors for an activity and emission type that have the same ranking, then it will use all of them and calculate multiple emission records. To avoid this scenario, be sure to end-date any earlier versions before the new revision’s start date.

Configure Invoice Classification Rules

If you're using Oracle Fusion Cloud Financials for managing supplier invoices, then you can create invoice classification rules to automatically generate activities corresponding to the goods and services procured from suppliers. For any

invoice distributions that can't be classified using these rules, Oracle Fusion Cloud Sustainability provides optional AI capabilities to classify them automatically.

Invoice classification rules use fields that are present on the Payables invoice to tell Oracle Sustainability what kind of activity must be created for each invoice distribution. When you run the Generate Sustainability Activities from Payables Invoices scheduled process, Oracle Sustainability fetches eligible invoice distributions and applies rules to create corresponding activities for each invoice distribution. Then, it automatically runs emission calculations and validations whose results you can review on the Sustainability Activities page.

You can either create rules directly in Oracle Sustainability or upload them from the published Oracle Visual Builder Add-in for Excel spreadsheet that Oracle provides. However, to improve coverage by rules overtime, you can use the optional AI capabilities of Oracle Sustainability to suggest rules for you.

Related Topics

- What's new for Update 25B: Classify Invoices Using AI
- What's new for Update 25B: Get AI-Suggested Invoice Classification Rules

Prerequisites for Configuring Invoice Classification Rules

Perform these tasks before you create invoice classification rules.

Before you start

To perform this procedure, you must be assigned a role that has all the privileges of the predefined Sustainability Analyst role.

1. Ensure that you have emission factor mappings configured and uploaded.
2. Sync activity classifications as follows:
    a. Click **Navigator > Sustainability > Invoice Classification Rules**.
    b. On the Invoice Classification Rules page, click **Sync Activity Classifications**. This will populate the list of values for the **Activity Classification** field when you create a rule.

> **Note:** Each time you create emission factors for a new combination of activity type and activity type attributes, ensure to sync activity classification so that the newly added combinations are added to the **Activity Classification** list.

Understand Invoice Classification Rules

Invoice classification rules allow Oracle Fusion Cloud Sustainability to determine which activity type and activity type attribute to use when generating an activity for an eligible invoice distribution, by using fields on the invoice, line, and distribution.

Every invoice classification rule requires the following attributes:

- Name: Enter a unique name for the rule.
- Start and End Dates: Use these dates to determine which rules are active or inactive at any given point in time. If you don’t need a rule to be applicable anymore, then you enter an end date that specifies the date from which the rule becomes inactive.

- Rule Type: Can be either Exclude or Assign.
  - Exclude: Choose this option when creating a rule to identify invoice distributions that must not be used to create activities. For example, you can use this option for a distribution that does not have any emissions impact.
  - Assign: Choose this option when creating a rule to identify invoice distributions that must be used to create activities.
- Rank: Specify a rank to sequence the rule execution. This is applicable only for rules of the type Assign. Rules with a lower rank number are executed first. If an invoice distribution meets the conditions of a rule, then the remaining rules are not evaluated for the distribution.
- Activity Classification: Choose the combination of activity type and activity type attributes that must be assigned to the generated activity. During implementation, the activity classification is generated from valid combinations of activity type attributes that are included in the emission factor mappings that you configured. Activity classification is generated by concatenating the activity type and activity type attributes following the same sequence as configured in the emission factor map descriptive flexfield. Values not populated will be skipped. For example, if you had configured the Mobile Combustion activity type to have three context-sensitive segments in the sequence Energy Source, Vehicle Type, and Percentage Laden, and you had configured the Stationary Combustion activity type to have a single context-sensitive attribute Fuel Type, then the following table shows the corresponding activity classification that will be generated.

Examples of Activity Classification

Activity Type	Energy Source	Vehicle Type	Percentage Laden	Fuel Type	Activity Classification
Mobile Combustion	Diesel	Heavy Duty Trucks			Mobile Combustion.Diesel.Heavy Duty Trucks
Mobile Combustion	Diesel	Passenger Car	100		Mobile Combustion.Diesel.Passenger Car.100
Mobile Combustion	Diesel				Mobile Combustion.Diesel
Stationary Combustion				Bituminous Coal	Stationary Combustion.Bituminous Coal
Stationary Combustion				CNG	Stationary Combustion.CNG

- Conditions: Specify one or more conditions that invoice distributions must meet to use this rule. If you define multiple conditions for a rule, then you can specify whether the given invoice distribution must meet all the conditions or any of the conditions to use this rule.
  a. Attribute: Specify conditions on any of the following attributes on the invoice:
     - Invoice type: The type of invoice, such as Standard, Prepayment, Credit memo, and so on.
     - Item: Item on the invoice line.
     - Item description: The description of the item on the invoice line.
     - Legal entity: Legal entity on the invoice.

- Line description: Invoice line description.
- Line type: For example, Item, Tax, Miscellaneous.
- Natural account: Natural account number segment value of the charge account used on the distribution.
- Natural account description: The description of the natural account.
- Procurement category hierarchy 1-10: Category value at one of the procurement category hierarchy level.
- Purchasing category: Category assigned on the purchase order, for invoice lines matched to purchase orders.
- Ship-to location
- Supplier name
- Supplier site
- Business unit
- Transaction description: Invoice description.
- Unit of measure: Unit of measure on the invoice line.
- Amount: Amount on the distribution.
- Quantity: Quantity on the distribution.
- Purchase order natural account: Natural account number segment value of the charge account used on the purchase order distribution
- Purchase order natural account description: The description of the purchase order natural account.

b. Operator: Use one of these operators to write your condition:

Comparison Operators

Operator	Explanation
Contains	The selected invoice attribute contains the keyword in the condition value. For example, the keyword *light*, when compared with the value Floodlight, will be considered a match. The keyword is case sensitive.
Does not contain	The selected invoice attribute does not contain the keyword in the condition value. The keyword is case sensitive.
Is	The value of the selected invoice attribute exactly matches with the condition value. This is not case sensitive.
Is empty	The selected invoice attribute has no value.
Is not empty	The selected invoice attribute contains a value.
Is exactly	The value of the selected invoice attribute exactly matches with the condition value. This is case sensitive.
Is not	The selected invoice attribute does not match with the condition value. This is case sensitive. For example, a condition where the supplier's name is not **Light** will match invoice distributions with any supplier name other than Light.

Operator	Explanation
Starts with and Ends with	The selected invoice attribute starts or ends with the condition value. This is case sensitive. For example, a condition where the supplier's name starts with **Corp** will match all transactions with supplier names such as Corporation Tech, Corp Tronics, and so on. Similarly, ends with matches all transactions with supplier names such as Green Corp, Vision Corp, and so on.
Matches any and Matches none	The selected invoice attribute matches with any of the keywords in the condition value. You can enter multiple keywords in the condition value, separated by the number sign (#). The values are case sensitive. For example, suppose that you want to create rules to differentiate between the purchase of computer hardware and computer services. You can procure either of these from three known vendors: Supplier 1, Supplier 2, or Supplier 3. If the invoice line description contains **Laptop**, then we must consider a hardware purchase. Otherwise, it's a software purchase. For this scenario, we can define two rules as follows: Rule 1 Rule name: Hardware Rank: 150 Activity classification: Purchased Goods and Services.Computer hardware Rule Condition Type - All Rule condition 1: Supplier name Matches any Supplier 1#,Supplier 2#,Supplier 3 Rule Condition 2: Line description Contains laptop Rule 2 Rule name: Software Rank: 200 Activity classification: Purchased Goods and Services.Software and Software Services Rule Condition Type: All Rule condition: Supplier name Matches any Supplier 1#,Supplier 2#,Supplier 3

Operator	Explanation

c. Value: Enter a value for the expression to be evaluated.

- When rules are evaluated, all the exclusion rules are evaluated first and activities are not created for any invoice distributions that match the exclusion rules. Then, all the assignment rules are executed one after the other in the sequence of ranking.

Exclusion Rules

For example, consider the following scenarios:

Scenario 1: You want to exclude all invoices of the type Prepayment.

Scenario 2: You want to exclude all invoices from Vision Corporation because they send detailed emission data for the fleet they manage on your organization's behalf. The emission data is configured to be uploaded directly to Oracle Sustainability through your own integration with the systems of Vision Corporation. Therefore, you don't want to generate activities directly from their invoices.

In both these scenarios, you can create exclusion rules as follows:

Sample Exclusion Rules

Rule Name	Rule Description	Rule Condition
Exclude all Prepayment	Exclude all invoices of type Prepayment	Invoice type Is Prepayment
Exclude invoices from Vision Corporation	Exclude all invoices from Vision Corporation	Supplier name Is Vision Corporation

Assignment Rules

For example, consider the following scenarios:

Scenario 1: You procure IT Hardware from several vendors. All these purchases originate from the procurement system, where the Purchasing Category is clearly identified as IT Hardware. Therefore, any invoice lines matched with Purchase Order (PO) lines that use the Purchasing Category “IT Hardware” must result in an activity of type “Purchased Goods and Services.Computers” (the activity type should be Purchased Goods and Services, and the Spend Type should be Computers).

Scenario 2: You procure natural gas for running furnaces on your shop floor, and emissions must be accounted for as Scope 1 - Stationary Combustion. All the natural gas is procured from a supplier named Green Corp. This supplier provides other fuels too, so for a purchase of natural gas, the line description always contains the words “natural gas.” Also, only the invoices charged to one of the many natural accounts containing the word “Furnaces” must be considered for Stationary Combustion. Therefore, any invoice distribution that matches all

the following criteria must result in activities of type Stationary Combustion.Natural Gas (here, the activity type should be Stationary Combustion, and the fuel type should be Natural Gas):

- Is charged to natural account that contains the word "Furnaces".
- Invoice line description contains the words “Natural gas."
- Supplier is Green Corp.

In both these scenarios, you can create assignment rules as following:

Sample Assignment Rules

Rule Name	Rule Description	Rule Condition Type	Rule Condition	Activity Classification
IT Hardware	PO for IT Hardware category		Purchasing category Is IT Hardware	Purchased Goods and Services.Computers
Natural gas for furnace	Natural gas for furnace must result in emission under Stationary Combustion	All	Natural account Contains Furnaces Line description Contains Natural Gas Supplier Is Green Corp	Stationary Combustion.Natural Gas

Create Invoice Classification Rules

You can create invoice classification rules by using the Invoice Classification Rules page.

Before you start

To perform this procedure, you must be assigned a role that has all the privileges of the predefined Sustainability Analyst role.

1. Click **Navigator > Sustainability > Invoice Classification Rules**.
2. On the Invoice Classification Rule page, click **Create Rule**.

3. On the New Rule page, create a rule as follows:
    a. In the **Name** field, enter the rule name.
    b. From the **Start Date** field, select the data from which the rule will be active. Optionally, enter an end date to specify the date from which the rule will turn inactive.
    c. From the **Rule Type** drop-down list, select **Assign** to create assignment rules, and select **Exclude** to create exclusion rules.
    d. In the **Rank** field, enter a unique rank number that is used for sequencing the rule execution. This is applicable only for assignment rules.
    e. From the **Activity Classification** drop-down list, select the required activity type and activity type attributes combination. This is applicable only for assignment rules.
    f. In the Conditions sections, select **All** or **Any** to specify whether all conditions must be met or any condition must be met to run the rule.
    g. To create rule conditions, click the **Create** icon.
    h. In the New Condition drawer panel, specify the invoice attribute on which the condition must be applied, From the Operator drop-down list, select the comparison operator for the rule. Then, enter a value for the attribute
    i. Click **Save**.
    j. To add more conditions, repeat steps 3.g through 3.i.
4. Click **Save**.

Upload Invoice Classification Rules

Oracle provides a published Oracle Visual Builder Add-in for Excel spreadsheet that contains a predesigned table layout for invoice classification rules. Use this spreadsheet to upload invoice classification rules in bulk.

Tips for Preparing Your Accelerator Spreadsheet for Invoice Classification Rules

- Ensure that all rules of the Assign type have a unique rank number. All rules of the Exclude type must have a rank of `-1`.
- Ensure that you populate the rule conditions for each rule. Also, ensure that the rules are meaningful. The Generate Sustainability Activities for Payables Invoices schedule process will end in error if it detects rules without conditions or with improperly written conditions.
- Activity Classification must be specified for all rules of the Assign type. This must be constructed using the following format:

  ```
  <Activity Type Name>.<Activity Type Attribute1>.<Activity Type Attribute2> . . .
  ```

  For example, Stationary Combustion.Gasoline, Mobile Combustion.Battery Electric Vehicle.Average car.

Before you start

- Download and install Oracle Visual Builder Add-in for Excel from here: *https://www.oracle.com/downloads/cloud/visual-builder-addin-downloads.html*.
- Download the Invoice Classification Rules - Published spreadsheet from *Oracle Cloud Customer Connect*.

The following are the high-level steps for configuring and uploading invoice classification rules using the published VB Add-in spreadsheet:

1. Review the sample rules in the accelerator spreadsheet for invoice classification rules and replace them with rules that meet your business needs.
2. Open the Invoice Classification Rules - Published spreadsheet.
3. From the Oracle Visual Builder tab, click **Download Data**. The Service Configuration dialog box is displayed.
4. In the Service host field, enter the URL of your Fusion instance and then click **OK**.
5. On the Sign In page, enter the credentials for the user that has been assigned a role with the privileges of the predefined Sustainability Analyst role. Data is downloaded and displayed in the spreadsheet.
6. Copy data from the Invoice Classification Rules accelerator spreadsheet that you've prepared to corresponding VB Add-in spreadsheet. While doing so, don't populate the Change, Status, and Key columns. The application will populate these during this step and the next.
7. From the Oracle Visual Builder tab, click **Upload Changes**. The Upload dialog box showing the upload progress is displayed.
8. Verify that the Status column contains "Create Succeeded" for each populated record in each spreadsheet tab.

Get Suggestions for Invoice Classification Rules

By using the optional AI capabilities of Oracle Fusion Cloud Sustainability, you can get recommendations for invoice classification rules.

Before you start

To perform this procedure, you must be assigned a role that contains the Manage Invoice Classification Rule for Sustainability Activities (SUS_MANAGE_INVOICE_CLASSIFICATION_RULES) privilege.

To get rule recommendations, from the Actions menu on the Invoice Classification Rules page, select **Suggest Rules**.

Related Topics

- What's new for Update 25B: Get AI-Suggested Invoice Classification Rules

Configure Search Views

Search views define the attributes that are enabled for keyword searches, and for display as filter chips or columns in search results on the Sustainability Activities and Emission Factor Mappings pages. If you want to modify the default search view or create a new search view (for common searches or reports) based on your requirements, then configure search views.

Before you start

To configure search views, you must be assigned a role that includes the Manage Search Views (HRC_MANAGE_SEARCH_VIEWS) privilege.

You can access the Search Views page in any of the following ways:

- Click **Navigator > My Client Groups > Show More > Data Exchange work area > Search Views** from the home page.

- Click **Navigator > Tools > Deep Links** from the home page. Then, on the Deep Links page, click **Redwood Quick Actions**. On the VBCS Deep Links page, from the **View** drop-down list, select **My Client Groups**, and from the Data Exchange section, select **Search Views**.
- Navigate to the following URL:

  https://HOST_NAME/fscmUI/redwood/human-resources/search-config/

  In this URL, replace HOST_NAME with the host name of your Fusion instance.

Related Topics

- What's new for Update 25A: Configure Search Views for Sustainability Activities and Emission Factor Mappings
- What's new for Update 25B: Find Activities or Emission Factor Mappings Using Activity Type Attribute Values as Keywords

5 Create or Import Activities

Create Activities

Create activities manually in Oracle Fusion Cloud Sustainability.

Before you start

- Ensure that the period in which you plan to create activities is in the Open status.
- Ensure that you're assigned a role that has all the privileges of the predefined Sustainability Analyst role.

To create activities:

1. Click **Navigator > Sustainability > Sustainability Activities**.
2. On the page that displays the dashboard for sustainability activities, click the **Activities** tab at the bottom of the page.
3. On the Sustainability Activities page, click **Create Activity**.
4. On the New Activity page, in the Classification section:
    a. From the **Activity Type** drop-down list, select the type of activity that you want to create.
    The corresponding fields for the specified activity type are displayed.
    b. Specify values for all the activity type attributes, scope, and scope category (if applicable) fields.
5. In the Activity details section, specify values for any relevant fields such as Description, Activity Date, Legal Entity, Country, Supplier, and Item. Note that specifying a value for the Legal Entity drop-down list is required.
    Specify values for any additional fields that might be available for the activity type that you are creating.
6. If your selected activity type has associated measure types, then in the Measures section, create measures by clicking **Add**. In the Add measure drawer panel, select the measure type and specify its details, and then click **Add**. Or, click **Add and Create Another** to add more measure types.
7. If your selected activity type has associated emissions, then from the Emissions section, select one of the following calculation modes:
    - **Using matched factors**: Select this option if you want Oracle Sustainability to calculate emissions based on the emission factor mappings that was configured during implementation.
    - **Manual entry of factors**: Select this option if you want Oracle Sustainability to calculate emissions by using emission factors that you specify on the activity.
    - **Manual entry of emissions**: Select this option when you want to directly specify emission that are calculated externally.
8. If you selected **Manual entry of factors**, then click **Add Emission**. In the Add emission drawer panel, select the emission type, measure, factor, and other related values, and click **Add** or **Add and Create Another**.
9. If you selected **Manual entry of emissions**, then click **Add Emission**. In the Add emission drawer panel, select the emission type, emission quantity, emission UOM, and then click **Add**.
10. In the Data Source section, the source type is automatically generated. For example, for activities being created manually in Oracle Sustainability the source type is Manual Entry. Similarly, for activities generated from Payables invoices, the source type is Payables Invoices and a link to the source invoice is available. Optionally, in the **External Reference Number** field, specify the reference number to link this activity with any external document.
11. In the Ledger section, the sustainability ledger and period fields are grayed out. These values are derived automatically when you save or create an activity. A sustainability ledger and period are automatically derived

based on the legal entity and activity date that you specified earlier, respectively. If the period derived is closed, then the next open future period is defaulted. In the Edit mode, you can update the period from a list of open periods associated with the ledger.

12. (Optional) In the Comments section, enter any comments for the activity.
13. In the Additional information section, enter values for the relevant fields. These are the fields that your organization would have configured using descriptive flexfields.
14. Click **Save** to calculate the emissions, if any, and create the activity. The activity is created and the New Activity page title will change to display the activity ID and the activity type that was created. Optionally, you can click **Save and Close**.

Tip: To track fugitive emissions, create activities by selecting the **Manual entry of emissions** calculation mode. Upon saving the activity, the emission calculator will apply the global warming potentials to calculate CO_2e. If the fugitive emissions are from a vehicle, then create separate activities to track mobile combustion and fugitive emissions.

Generate Activities from Payables Invoices

You can automatically generate activities from Payables invoices by running the "Generate Sustainability Activities from Payables Invoices" scheduled process.

Generate Activities

Note: Before you run the scheduled process, ensure that you have:

- Been assigned a role that includes the Generate Sustainability Activities from Payables Invoice (SUS_GENERATE_ACTIVITIES_FROM_INVOICES) privilege.
- Set a value for the **Default Activity Type for Invoice Classification** profile option.

When you run the "Generate Sustainability Activities from Payables Invoices" scheduled process, it performs the following actions:

1. Selects invoice distributions that meet the criteria specified in the invoice classification rules.
2. Identifies eligible invoice distributions to be processed into activities. The following invoice distributions will be excluded for processing into activities:
    - Distributions that aren't fully validated and accounted.
    - Distributions for which activities are already generated.
    - Distributions that meet the criteria for any active exclusion rules.
3. Evaluates each eligible invoice distribution against each active invoice classification rule in the order of the rank specified in the invoice classification rule.
    a. If an invoice distribution meets the criteria for a given invoice classification rule, then an activity is created using the activity classification specified on that rule. The following table lists the fields that are copied from the invoice distribution to the activity or defaulted based on the setup.

Mapping of Fields between an Invoice Distribution and the Corresponding Activity

Fields on the Resulting Activity	Derivation Source
Description	Invoice line description
Activity Date	Accounting Date on the invoice line
Legal Entity	Legal Entity on the invoice
Supplier	Supplier on the invoice
Country	Country specified in the Ship-to line of the invoice
Item Number	Item Number on the invoice line
Activity Type	Based on the activity classification on the rule that was used. If no rule was applied, then the activity type is derived from the **Default Activity Type for Invoice Classification** profile option.
Activity Type Attributes	Based on the activity classification on the rule that was used. If no rule was applied, then no values will be populated for the Activity Type attributes of the default activity type.
Scope and Scope Category	From the activity type definition for the selected activity type.
Measure for Amount	Invoice distribution amount and currency are used to create an amount measure, if the activity type has been set up to use the predefined Amount measure.
Measure for Quantity	Invoice distribution quantity and UOM are used to create a quantity measure, if the activity type has been set up to use the predefined Quantity measure.
Invoice Number, Line Number and Distribution	From the source invoice.
Source Type	From Payables Invoice.

b. Rule evaluation continues in the order of rank until a matching rule is identified.
c. If you've opted for the optional **Classify Invoices Using AI** feature, then Oracle Fusion Cloud Sustainability will attempt to classify any remaining distributions using AI. If the classification is predicted with high confidence, then the activity will be created using the activity type and activity type attributes predicted by AI.
d. If AI can't predict with high confidence, or if you didn't opt-in to the **Classify Invoices Using AI** feature, then Oracle Sustainability uses the **Default Activity Type for Invoice Classification** profile option to classify any remaining distributions.

4. For each activity that's created, the scheduled process:
    a. Triggers emission calculation using the preconfigured matched emission factors and the measures derived from the invoice.
    b. Runs the validation check that helps you identify activities that are incomplete and thus need your attention.

After the successful completion of the "Generate Sustainability Activities from Payables Invoices" schedule process, for each eligible invoice distribution (only distributions that are fully validated and accounted for), activities are created and placed in the Draft status. On the Sustainability Activities page, you can search for activities by using the payables invoice number or the invoice classification rule. You can individually post each activity to the ledger after reviewing it, or run the “Process Sustainability Activities” scheduled process to post a large volume of activities to the ledger in bulk.

Tips and Considerations

- If you opt in to the **Classify Invoices Using AI** feature, then be sure to define at least four emission factor mappings for the activity type specified in the **Default Activity Type for Invoice Classification** profile option.
- Purge the interface table data of External Purchase Prices and the corresponding records in error tables if applicable.
- Only the predefined measure types Quantity and Amount are automatically derived from the invoice. To automatically calculate emissions from invoices, you must configure the Quantity and Amount measure types for the activity types of the activities that will be generated from invoices.
- For deriving the Quantity measure from the invoice line or distribution, both Quantity and UOM must be specified on the invoice. If there's incomplete information (for example, UOM is missing), none of the measures will be copied over. The activity will be tagged with a missing measures alert for Sustainability Analysts to enter correct measures and ensure calculation accuracy.
- It is possible that a fully validated and accounted invoice can still be modified in Payables. Oracle Sustainability doesn't consider any changes to invoice distributions after the invoice has been processed into activities. Canceling an invoice distribution creates a new distribution with negative amount and quantity. The new distribution generates a new activity that subtracts the quantities and emissions of the original distribution.

Related Topics

- Generate Sustainability Activities from Payables Invoices
- Process Sustainability Activities

Import Activities Using FBDI Templates

Import sustainability activities, along with measures and emissions, from external sources using file-based data import (FBDI). Use FBDI to create large volumes of activities.

You can also use FBDI to edit or delete large volumes of activities.

Before you start

To import, edit, or delete activities using FBDI, you must be assigned a role that has all the privileges of the predefined Sustainability Integration Specialist role.

For complete details on using FBDI, refer to either of the following guides:

- *Oracle Fusion Cloud SCM File-Based Data Import (FBDI) for SCM*
- *Oracle Fusion Cloud Procurement File-Based Data Import (FBDI) for Procurement*

6 Review and Manage Activities

Review Activities

Oracle Fusion Sustainability Cloud provides a dashboard to get insight into the activities that require attention for the earliest open period that is targeted to be closed. The dashboard helps you to understand the total number of draft activities that need to be posted and the percentage of draft activities that have validation errors.

On the dashboard, you can analyze activities by alert type and by status. In addition, you can extend the dashboard to create your own scorecards by adding KPIs and data visualizations that are critical for your business.

To review activities on the dashboard:

> **Note:** To perform this procedure, you must be assigned a role that includes the View Sustainability Activity Work Area (SUS_VIEW_SUSTAINABILITY_WORKAREA_PRIV) privilege.

1. Click **Navigator > Sustainability > Sustainability Activities**
   The Sustainability Activities page with the dashboard is displayed.
2. From the drop-down list next to the page title, select the sustainability ledger from which you want to review activities.
3. Click the stacked bar chart to review validation errors by activity type and then drill down to the list of activities. In addition, use the activity type legend preceding the stacked bar to review only selected activity types at a time.
4. Click the pie chart to review activities by different statuses and then drill down to the list of activities. In addition, use the status legend preceding the pie chart to review only selected statuses at a time.

When you confirm that all activities for the current target period are posted, you can close the period using the Periods page after which the dashboard is automatically refreshed with the metrics for the next available open period.

Related Topics

- What's new for Update 25C: Extend the Activities Dashboard with OTBI KPIs and Visualizations

Manage Activities

Use the Sustainability Activities page to view, create, edit, and search for activities.

After you search for and view an activity, you can perform actions such as validate, post, and delete. You must validate an activity in the draft status before posting it to the sustainability ledger. You can perform validations on an activity when you view or edit the activity. In addition, validations are implicitly performed when you post an activity. Examples of validations performed by Oracle Fusion Cloud Sustainability include ensuring that the activity type is valid and that there are no missing measures or missing emissions. If you want to validate or post activities to a sustainability ledger in bulk, then run the **Process Sustainability Activities** scheduled process.

> **Note:** To perform this procedure, you must be assigned a role that has all the privileges of the predefined Sustainability Analyst role.

1. Click **Navigator > Sustainability > Sustainability Activities**

   The Sustainability Activities page with the dashboard is displayed.
2. Click the **Activities** tab.
3. To search for and filter activities, enter your search criterion in the search field. The search criterion can be an activity number, activity type, or a supplier. You can narrow down your search results by using filters such as Activity Types, Activity Date, Classified by AI, Status, Sustainability Ledger, Period, Invoice Number, and so on.
4. From the search results, you can perform the following actions:
   - View activity details: To view details of an activity, from the search results, click the activity number link corresponding to the activity that you want to view. For emission-generating activities, the activity details also include information about the emissions and how they were calculated. You can click an emission factor to view its source, ranking, and effective dates.
   - Edit draft activities: To edit an activity, click the pencil icon in the Actions column corresponding to the activity. Or, click **Edit** while viewing an activity on the activity details page.
   - Delete draft activities: Select one or more activities that you want to delete and then click **Delete**.

     Note that you can't permanently delete activities generated from Payables invoice. This is because a new activity will be created in its place in a subsequent run of the "Generate Sustainability Activities from Payables Invoices" scheduled process. In such a case, you can perform one of the following actions:
     - Create an exclusion rule that would apply to the source invoice, and delete the activity. When the scheduled process runs again, this invoice distribution will not be processed into an activity.
     - Post the activity to the ledger and cancel it immediately.
     - Update the measures to zero and save the activity. This will cause emission calculation to be zero. Then, post the activity to the ledger.
   - Validate draft activities: Select one or more activities that you want to validate, and then click **Validate**. Or, on the page that displays the activity details, from the **Actions** menu, click **Validate**.

     Oracle Sustainability performs a series of checks in the background to ensure that the activity is ready to be posted to the ledger. In addition, it recalculates emissions and ensures that the latest set of matching emission factors, valid as of the activity date, are used for emission calculations. Note that you can only post a validated activity to the sustainability ledger.
   - Post draft activities to ledger: Select one or more activities that you want to post, and then click **Post**. Or, on the page that displays the activity details, from the **Actions** menu, click **Post**.

     The activity is validated and posted to the ledger. You cannot update an activity after it's posted to the ledger.
   - Cancel posted activities: Select one or more activities that are in Posted status, and then click **Cancel**. Or, on the page that displays the details of a posted activity, click **Cancel Activity**.

     You can cancel a posted activity if the period in which it's posted is still Open. After an activity is canceled, its status changes to Canceled and you can't perform any actions on it.
   - Export activities: Select one or more activities that you want to export, and then click the **Export** icon. You can select and export up to 10000 records at a time.

Note:

- You can select up to 500 activity records at a time and then validate, post, cancel, or delete them.
- If you don't see the updates after you validate, post, cancel, or delete two or more activity records at a time, then refresh the page after a few minutes and check.

7 Manage Periods

Manage Periods

Use the Sustainability Periods page to view and close periods.

You can close a period only after you've posted all the activities in that period to the ledger. You must close all periods successively starting with the earliest open period. All activities in the period that you plan to close must be in the Posted or Canceled status.

Before you start

You must be assigned a role that includes the Manage Sustainability Ledger Period (SUS_MANAGE_LEDGER_PERIODS_PRIV) privilege.

1. Click **Navigator > Sustainability > Sustainability Activities**.
2. On the page that displays the dashboard for sustainability activities, click the **Periods** tab. The Sustainability Periods page is displayed.
3. In the Target period to close section, click **Close Period**.

   The **Close Period** button will be disabled if there are activities in this period that are in the Draft status. Review the value of the **Activities in Draft Status** metric. If the value of this metric is not zero, then ensure that you post or delete all these draft activities. The **Close Period** button will be enabled only when the number of records in the **Activities in Draft Status** metric is 0.

Related Topics

- What's new for Update 25A: Review Period Summary Before Period Close

8 Troubleshooting

Troubleshooting

Review these suggested solutions for issues with Oracle Fusion Cloud Sustainability.

Issue: The aggregation count on the dashboard or the search pages for sustainability activities or emission factor mappings don't match the actual activity count.

Try this: Depending on whether the mismatch is on the Sustainability Activities page or the Emission Factor Mappings page, run the "ESS job to create index definition and perform initial ingest to OSCS" scheduled process with the **Index Name to Reingest** parameter set to **fa-prc-sus-activities** or **fa-prc-sus-efmaps**, respectively. This will sync the aggregation count and activity count.

Issue: Activities generated from Payables invoices have the wrong activity type or activity type attributes.

Try this: This issue can occur if there was no rule in place for the source invoice distribution or an incorrect rule got applied.

As a first step, create a new rule or update existing rules to ensure that future activities from such invoice distributions have the correct activity type and activity type attributes.

Then, to reclassify activities with issues, you can perform one of the following options:

- If the activity type is correct but one of the activity type attributes (such as Spend Type) is incorrect or isn't populated, then you can update the activity and correct the activity type attributes. This method works if you have only a few activities to correct.
- If the activity type is incorrect or if you have a large volume of activities that need to be corrected, then:
  a. Delete the activities that need to be corrected. You can delete activities in any of the following ways:
     - From the Sustainability Activities page in Oracle Sustainability.
     - By using the Oracle Visual Builder Add-in for Excel spreadsheet for the Activity.
     - By using File-Based Data Import (FBDI).
  b. Run the "Generate Sustainability Activities from Payables Invoices" scheduled process again with parameters that would include the source invoice distributions. A new set of activities will be created with the correct activity type and activity type attributes as the updated set of rules are evaluated.

  You can't permanently delete an activity that's generated from Payables invoice, because a new activity will get created in its place in a subsequent run of the scheduled process. If you think the activity isn't needed, then you can perform one of the following actions:
  - Create an exclusion rule that would apply to the source invoice, and delete the activity. When the scheduled process runs again, this invoice distribution will not be processed into an activity.
  - Post the activity to the ledger and cancel it immediately.
  - Update the measures to zero and save the activity. This will cause the emission calculation to be zero. Then, post the activity to the ledger.

Issue: Activity validation issues.

Try this: Fix any validation issues by using the resolution given in the following table. Note that you can't post activities with validation issues to the ledger.

The following table summarizes all the validation messages implemented in Oracle Sustainability. The table also lists the corresponding validation details and resolution.

Validations Implemented in Oracle Sustainability

Validate Message	Validation Details	Applicable to Calculation Modes	Resolution
Activity type end dated	The activity type on the activity record was end-dated in the activity type setup.	All calculation modes	Try any of the following: • Extend the end date of the activity type. • Update the Activity Date so that it is between the start and end dates of the activity type. • If you no longer wish to use the activity type, then create a new activity as the Activity Type field for a record is not an editable field. Then, delete the original activity.
GWP end dated	The activity record has been created with emissions and the GWP associated with the emission type has been end-dated in the GWP set up. The Activity Date on the activity record should be between the start and end dates of the GWP.	All calculation modes	Try any one of the following: • Extend the end date of the GWP. • Update the activity date so that it is between the start and end dates of the GWP. • Update the GWP setup and ensure that the emission types in question have a valid GWP.
Emission factor end dated	The activity record has been created with emissions and the emission factor mapping associated with the emission type has been end-dated in the emission factor setup. The activity date on the activity record should be between the start and end dates of the emission factor mapping.	Using matched factors	Try any one of the following: • Extend the end date of the emission factor mapping. • Update the activity date so that it is between the start and end dates of the emission factor mapping. • Update the emission factor mappings and ensure that the emission types in question have a valid mapping.
Duplicate emissions	There are duplicate emissions for the same emission type in the activity. This error can occur in the following conditions:	All calculation modes	♂ If the calculation mode is **Using matched factors**, then change the rankings of the matched emission factor mappings so that only one highest ranked factor is

Validate Message	Validation Details	Applicable to Calculation Modes	Resolution
	• If the calculation mode is **Using matched factors**, then more than one emission factor mapping of the same rank matched for the same emission type and duplicate emissions were calculated. • For other calculation modes, more than one emission line has been entered for the same emission type.		matched to the activity for the emission type. o For other calculation modes, ensure that there's only one emission line entered for an emission type.
Missing emissions	No emissions are entered or calculated for the activity even though the activity type on the record has association to one or more emission types. For example, the Mobile Combustion activity type is associated with emission types Carbon dioxide and Methane, but there are no emission records present in the activity record. This error can happen in the following conditions: • If the calculation mode is **Using matched factors**, then there aren't any emission factor mappings matching the attributes on the activity. • For other calculation modes, the activity type on the activity is associated with at least one emission type and no emission line has been entered.	All calculation modes	• If the calculation mode is **Using matched factors**, then: o Check that there are matching emission factors based on the activity type, activity type attributes, legal entity, country, or these fields are NULL on the emission factor for a wildcard match. o The activity date must be between the emission factor mapping start and end dates. o Check that the measure you've entered on the activity matches the measure on the emission factor mapping. o Check that the measure UOM matches, or can be converted to the denominator UOM of the emission factor The Oracle Sustainability calculator always picks the highest ranked matching factors on the activity. • For other calculation modes, ensure that there is at least one emission line entered.
Missing measures	No measures are entered for the activity even though the activity type on the record is associated with one or more measure types. For example, the Mobile Combustion activity type is associated with a measure type “Quantity.”	• Using matched factors • Manual entry of factors	Ensure that the activity includes at least one measure that is associated with the activity type.
Emission quantity missing	Emission records are present in an activity, but no emission quantity was calculated. This can happen when there's no UOM conversion set up to convert between the measure UOM and the emission factor denominator’s UOM.	Manual entry of factors	Ensure that there's conversion factor between the measure UOM or Currency, and the emission factor denominator’s UOM or Currency.

Validate Message	Validation Details	Applicable to Calculation Modes	Resolution
Missing CO_2e UOM conversion	CO_2e emissions couldn't be calculated as the emission quantity UOM couldn't be converted to the reporting CO_2e UOM due to a missing unit of measure conversion. For example, CO2e emissions couldn't be calculated for the Carbon Dioxide emission type because the emission quantity UOM (gram), couldn't be converted to the reporting CO2e UOM (kilogram) as gram to kilogram conversion is not set up.	All calculation modes	Ensure that there's a UOM conversion factor to convert from the emission quantity UOM to the CO2e Reporting UOM.
Missing reporting UOM	The reporting CO2e UOM hasn't been set up in profile options.	All calculation modes	Populate the profile option.
Period is closed	Either the activity doesn't have a period or has one that's closed.	All calculation modes	Update the period on the activity to an open period on the ledger.