

IFS Cloud Emissions Tracker

Configuration Guide



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1. Configuration Guide

1.1 Introduction

Note: Ensure you've followed the IFS Cloud Emissions Tracker Installation Guide prior to beginning the Configuration Process.

This guide is designed to provide you with comprehensive instructions on how to configure and customize Emissions Tracker Application to meet your specific needs and preferences.

To help you navigate through the configuration process efficiently, this guide is organized into sections each focusing on a specific aspect of configuration. You can follow the steps sequentially or jump directly to the sections that address your immediate needs.

Before you begin configuring Emissions Tracker Application, make sure you have the necessary access rights and permissions.

Prerequisites for configuring IFS Cloud Emissions Tracker

- Admin Access to PowerApps
- ClimaTiq API Key ([ClimaTiq - API for Carbon Footprint Calculations](#))
- Being IFS Cloud User (For IFS Cloud Customers)
- Azure Key Vault Data Administrator (For IFS Cloud Customers)

1.2 Prepare your IFS Organization Access Tokens

Note: You need to be a IFS Cloud customer for this.

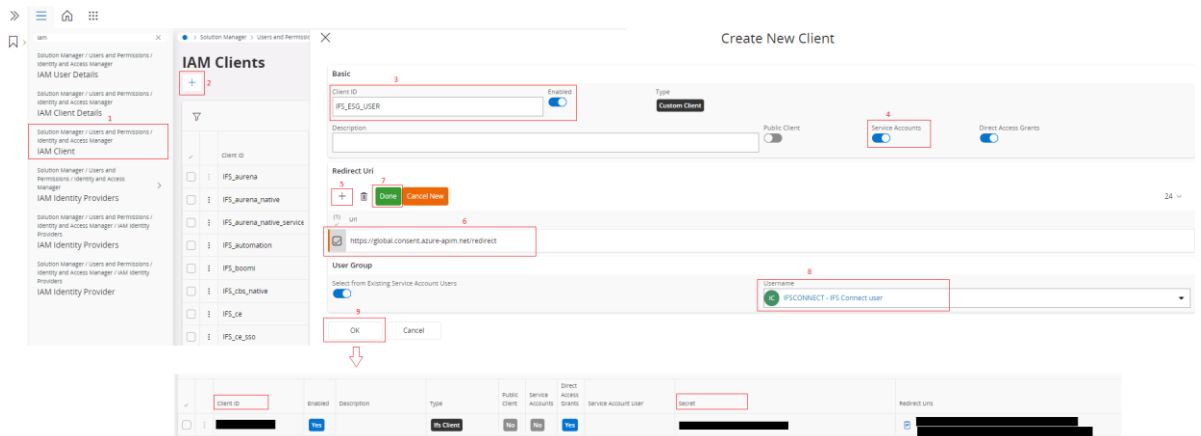
Persona: IFS Cloud Customer

The IFS Cloud Organization Setup Connector facilitates the direct importation of your company details from IFS Cloud. This is a one-time configuration that expedites the organization setup within the application. It's important to note that this feature is accessible exclusively to **IFS Cloud customers**.

1.2.1 Creating IAM Client Account

1. Login to IFS Cloud and Go to **IAM Client** Page.

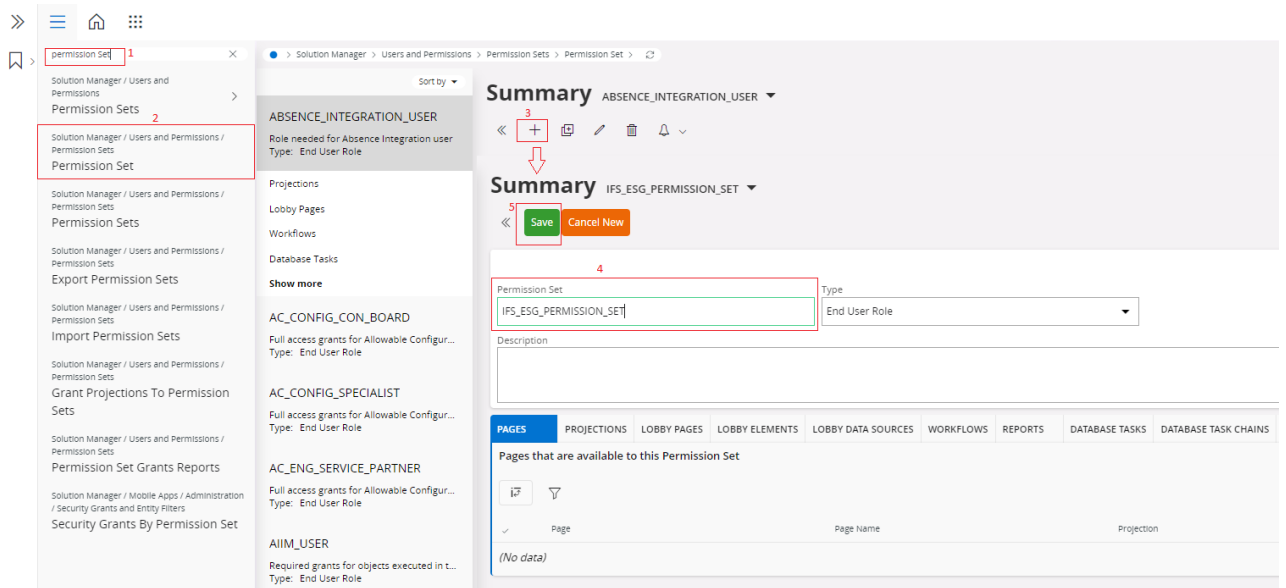
2. Add a new IAM Client.
3. Fill the Client ID with a suitable name (Example: IFS_ESG_USER) and turn on the **Enable** Toggle.
4. Turn on the service Accounts toggle On. (This will enable select from existing service Account Users on)
5. Add new Redirect URL as <https://global.consent.azure-apim.net/redirect>
6. For username, select the username where you want to give access.
7. Click on OK and see if your newly created record is visible in the grid.



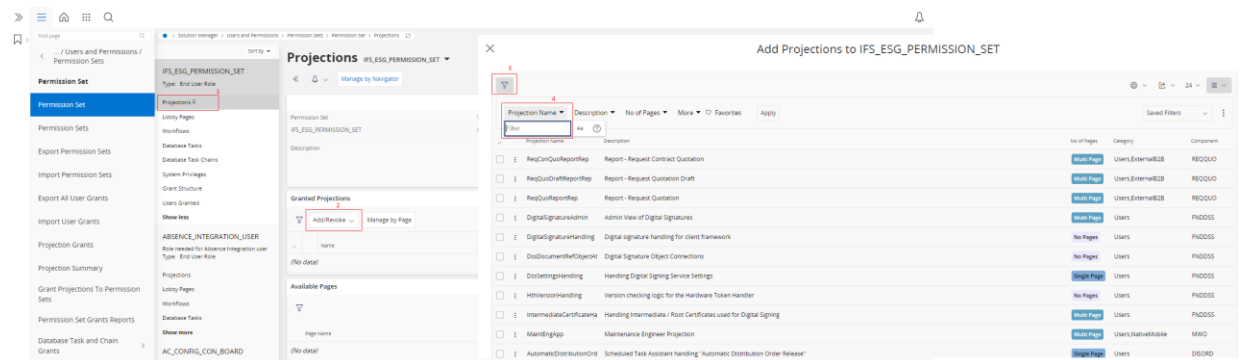
Note: You will need this newly created **Client ID and Secret** in Next Step. Section 1.5

1.2.2 Adding Permission Set to the User

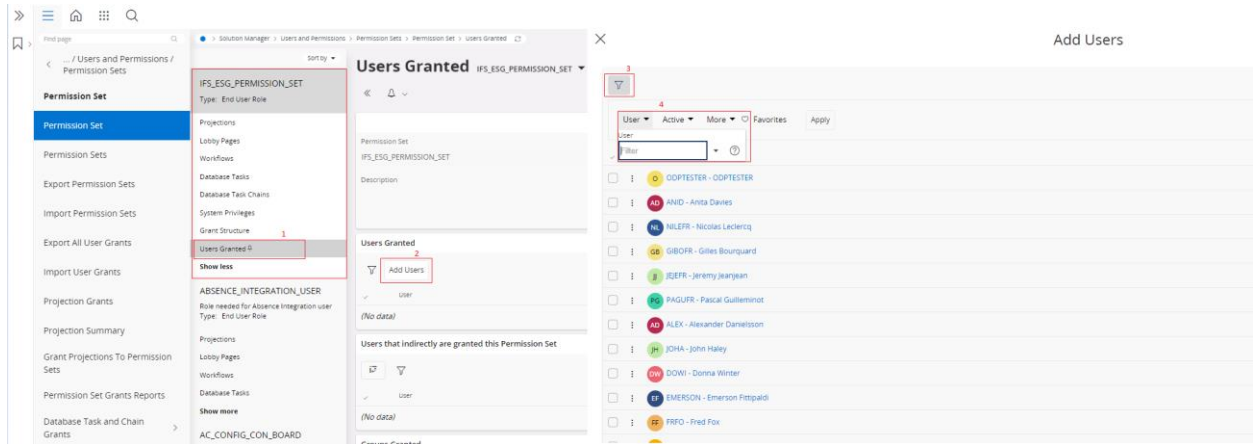
1. Search **Permission Set** in the left Navigation search space. Select Permission Set
2. Select on new Permission Set.
3. Add a Name for the Permission Set (Example: IFS_ESG_PERMISSION_SET)
4. You can leave the remaining selections as is, Click **Save**.



5. In the left navigation you can see the created Permission Set. Now let's map Projection to the IAM Client service Account User
6. Select the Projection and click on Add Projection.
7. From the panel you can filter the projection, select the checkbox, and hit ok button. You need to add below 5 projections.
 - CompanySiteHandling
 - CompaniesHandling
 - AccountingPeriodsHandling
 - SitesHandling
 - CompanyHandling



8. Next select "Users Granted" under the Permission set you have created.
9. Select Add Users and filter the user you have added under the IAM Client Account.



The screenshot displays the IFS Cloud Emissions Tracker interface. On the left, a navigation menu shows 'Users and Permissions' > 'Permission Sets' > 'Users Granted'. The main area shows the 'Users Granted' page for the 'IFS_ESG_PERMISSION_SET'. A red box highlights the 'Users Granted' link in the left sidebar (1). Another red box highlights the 'Add Users' button in the 'Users Granted' section (2). A third red box highlights the 'Add Users' button in the 'Add Users' dialog box (3). The dialog box shows a search field and a list of users with checkboxes for selection. The list includes users like ODPFESTER, ANID - Anita Davies, NLEFR - Nicolas Lectercq, GIBOFF - Gilles Bourguard, JEJFR - Jeremy Jearjean, PAGLFR - Pascal Guillemot, ALEX - Alexander Daneilsson, JOHA - John Haley, DOWI - Donna Winsler, EMERSON - Emerson Fitzgald, and FRFO - Fred Fox.

1.3 Azure Key Vault and Create Secrets

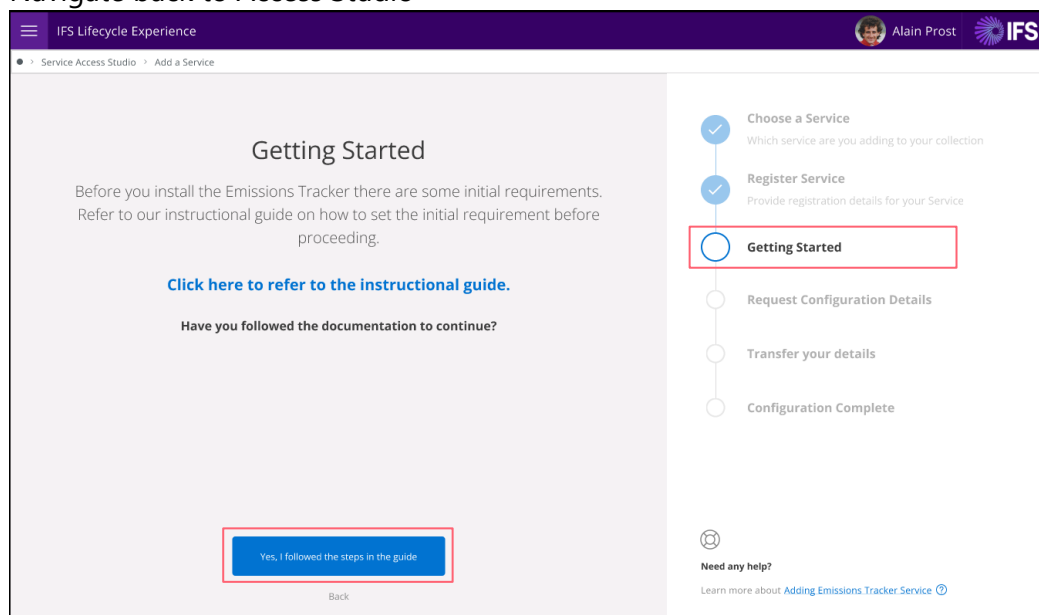
Note: You need to be a IFS Cloud customer for this.

Persona: Azure Key Vault Administrator

Refer to [Microsoft Key Vault documentation](#) for instructions on creating an Azure Key Vault.

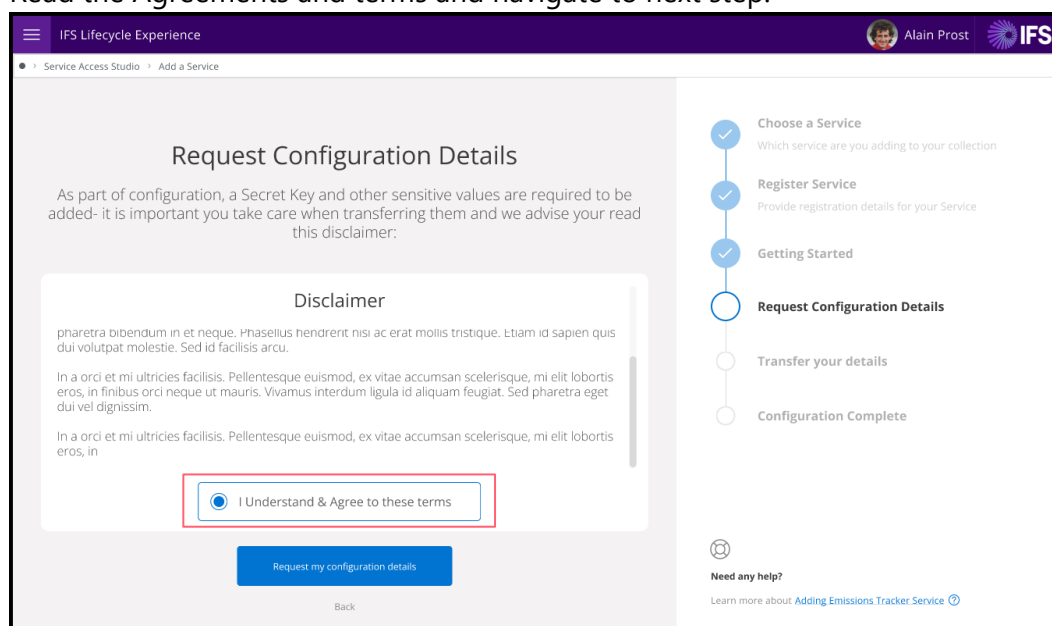
1.3.1 Obtain your Integration Configurations

i. Navigate back to Access Studio

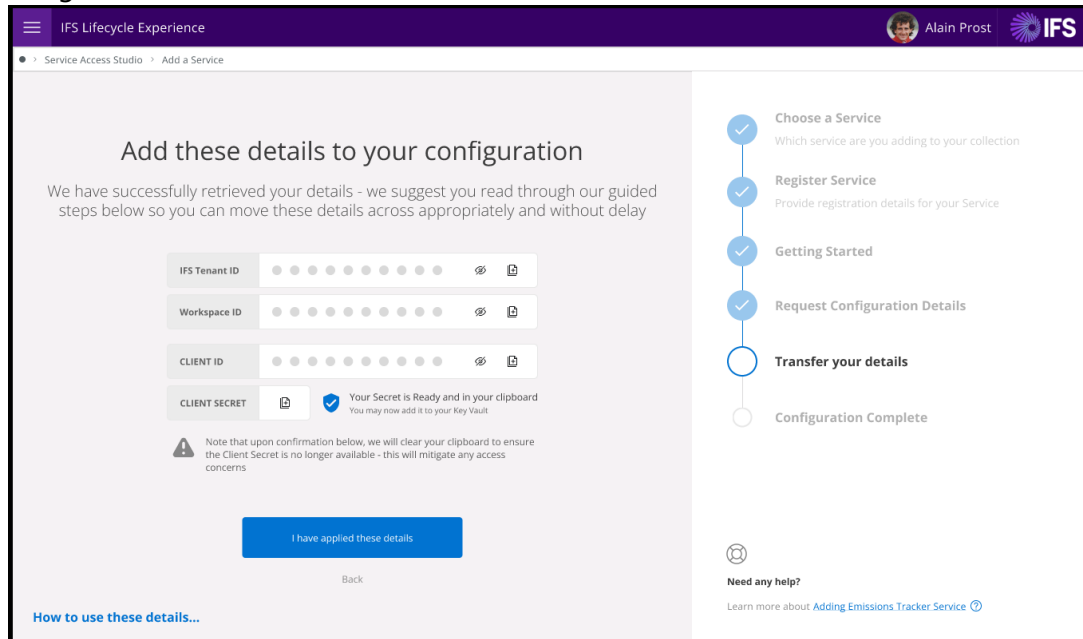


ii. Click on "Yes, I followed the steps in the guide"

iii. Read the Agreements and terms and navigate to next step.



- iv. "Transfer Detail" section will contain the configuration detail, which required to Integrate data from IFS Cloud.

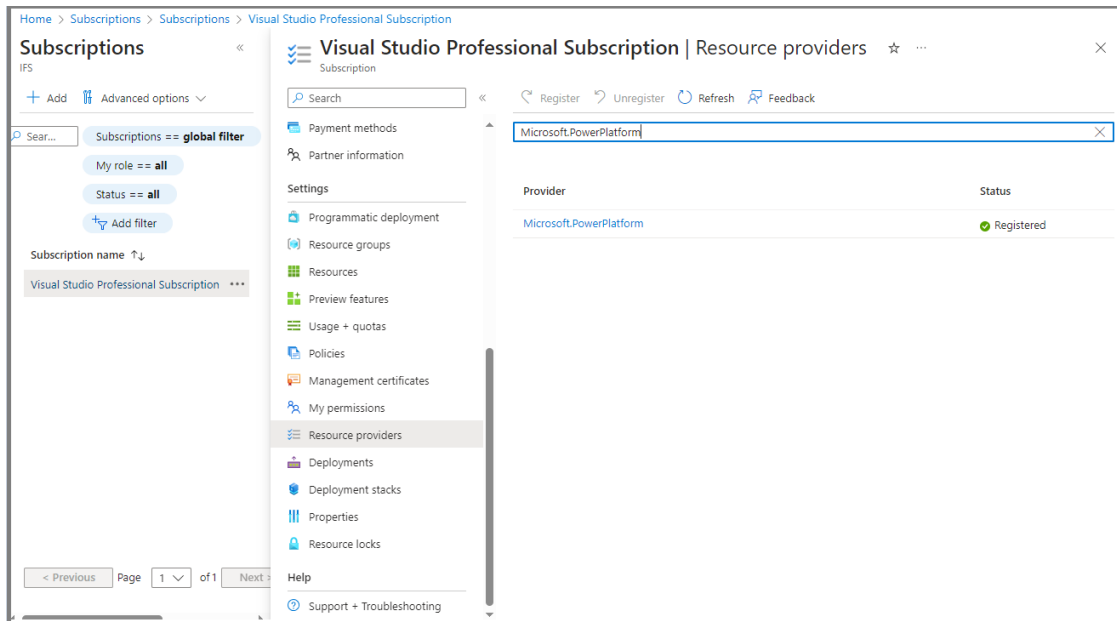


Note: Make sure you have keep copied above details until finish the IFS Cloud Emissions Tracker Configurations Guide

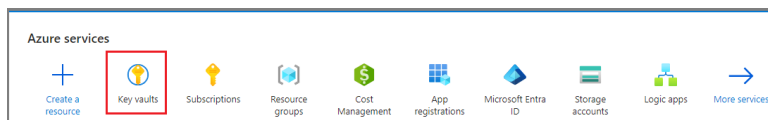
Name	Description
IFS Tenant ID	"IFS Cloud Connector Tenant ID" – follow Section 1.5 to update this
Workspace ID	"IFS Cloud Connector Workspace ID" - follow Section 1.5 to update this
Client ID	"IFS-Cloud-Client-ID" follow Section 1.3.3 to update this
Client Secret	"IFS-Cloud-Client-Secret" follow Section 1.3.3 to update this

1.3.2 Create Azure Key Vault

1. Navigate to portal.azure.com.
2. Register the Microsoft.PowerPlatform resource provider in your Azure subscription.
 - Go to your Azure subscription and locate the resource providers.
 - Verify if the Microsoft.PowerPlatform resource provider is registered; if not, proceed to register it.

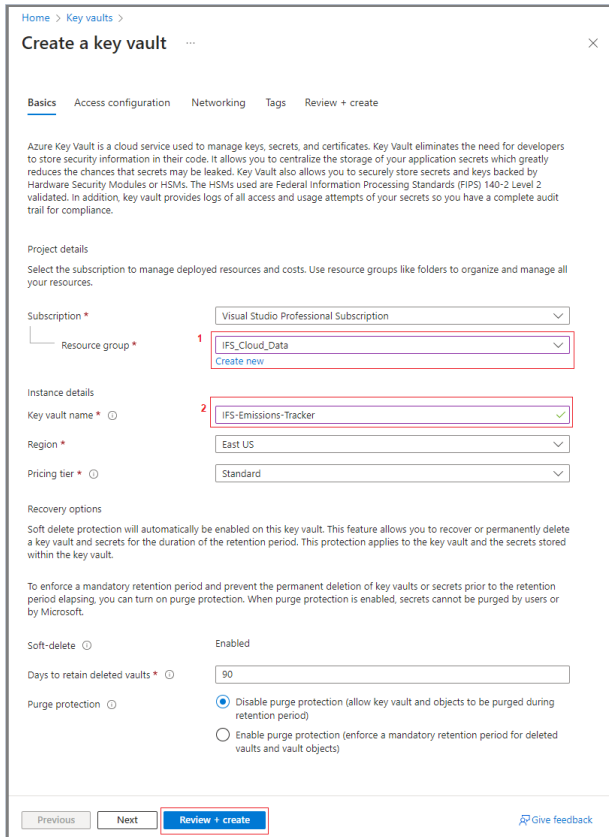


3. Create an Azure Key Vault.
 - a. Locate the Key Vault in Azure and initiate the creation of a new Key Vault

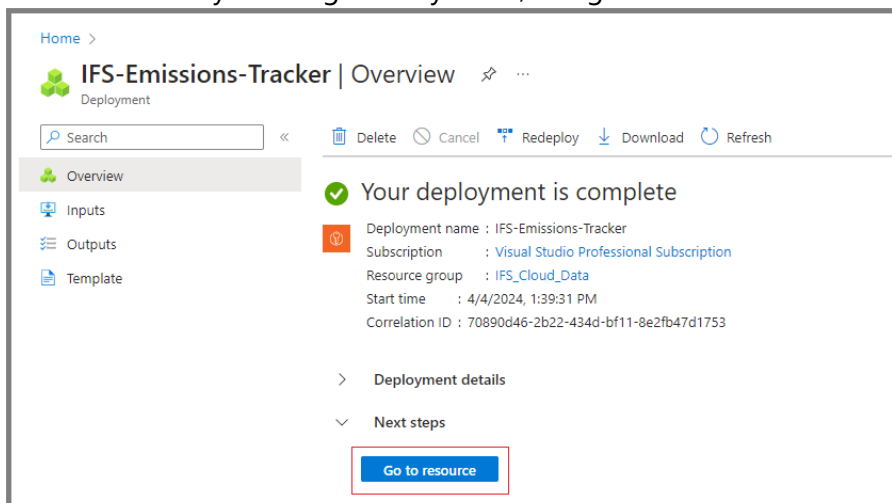


4. Choose "New Key Vault."

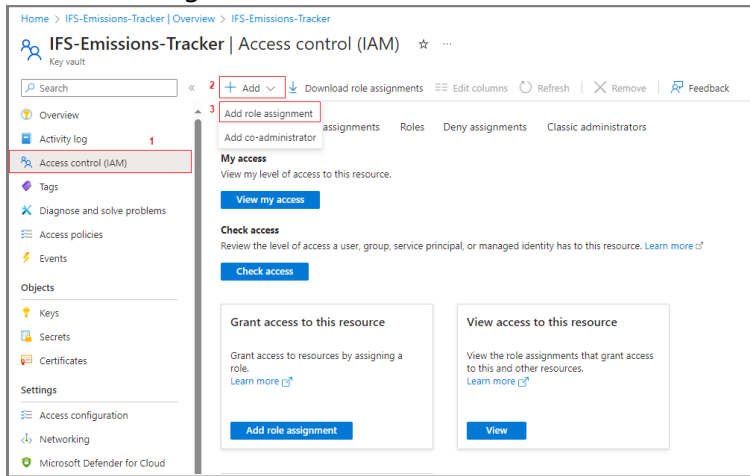
- i. Within the resource group section, choose "Create new" and assign a name for the resource group, for example, "IFS_Cloud_Data".
- ii. Enter a name for the Key Vault. Ex: IFS-Emissions-Tracker
- iii. Next, Select Review and Create button.



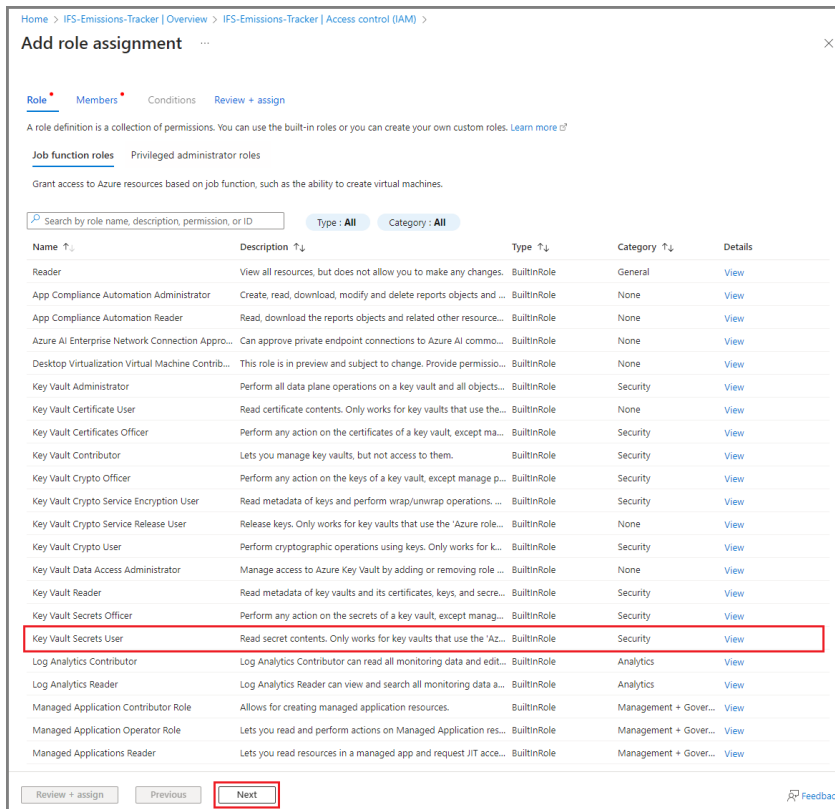
- iv. After successfully creating the Key Vault, navigate to the resource.



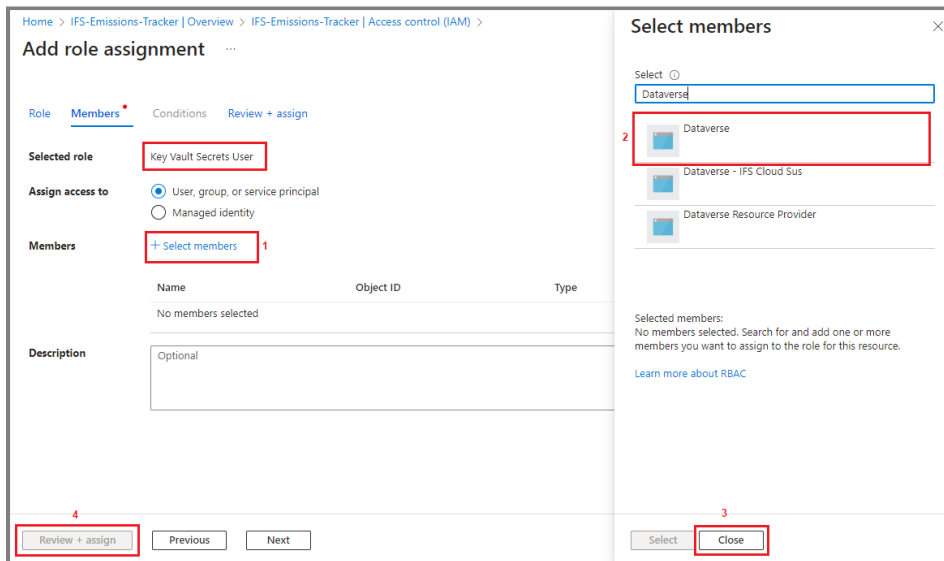
- Go to the resource access and choose Access Control from the navigation menu. Then, click on Add Role Assignment.



- Choose the Key Vault Secret User.



- Choose "Members" and include "Dataverse." Afterwards, select review and assign.



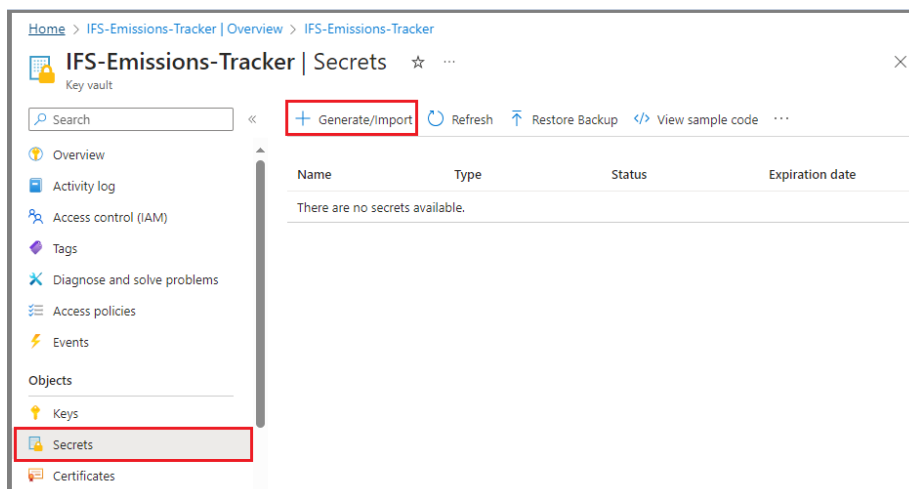
1.3.3 Create Secrets

You are required to generate four secrets.

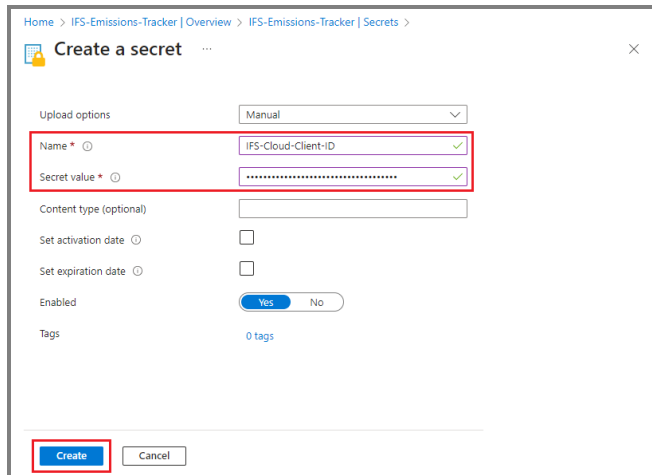
Secret Name	Secret Value
IFS-Cloud-Client-ID	From IFS Section 1.3.1
IFS-Cloud-Client-Secret	From IFS Section 1.3.1
IFS-Org-Client-ID	Section 1.2.1
IFS-Org-Client-Secret	Section 1.2.1

Table 1

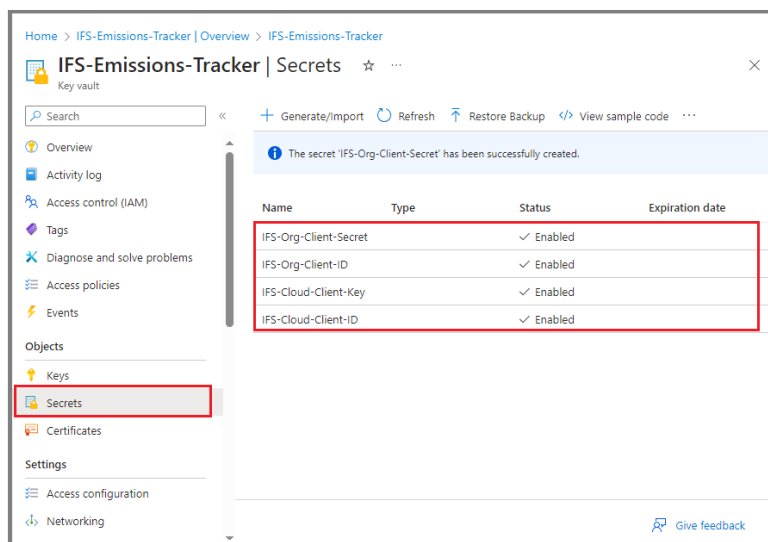
- Find the "Secrets" in Key Vault Navigation and select "Generate/Import."



2. Add Name, Secret Value and hit Create.
 - Name: IFS-Cloud-Client-ID
 - Secret: xxxxxxxxxxxx (Received from IFS)



3. Create all four (4) secret given in the Table 1.



Name	Type	Status	Expiration date
IFS-Org-Client-Secret		✓ Enabled	
IFS-Org-Client-ID		✓ Enabled	
IFS-Cloud-Client-Key		✓ Enabled	
IFS-Cloud-Client-ID		✓ Enabled	

1.4 Setting up OneDrive for Excel Upload

The IFS Cloud Emissions Tracker allows users to upload data through Excel files, which are then stored in OneDrive. To achieve this, follow the steps provided below to save your Excel files onto OneDrive.

Note: The Excel template needed will be provided by IFS.

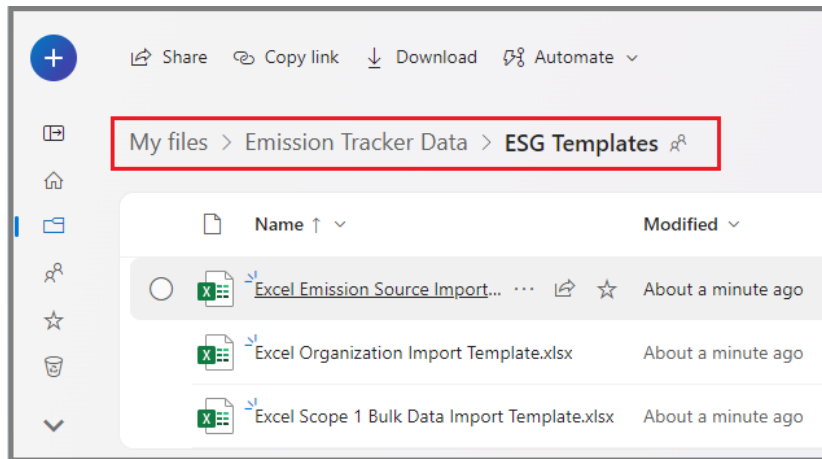
1. Create Folder in your OneDrive.
2. Upload all the excel files into this folder. Optionally, you can organize them into separate folders, and currently, there are three template files available.
 - i. Emission Source Template – (Upload Emission Sources)
 - ii. ESG Organization Import Excel – (Upload Data related to organization)
 - iii. Scope 1 Bulk Data Upload – (Upload Scope 1 Data)

3. You will need this Excel paths in future step, so make sure to keep note on this.

Note: How to read excel paths.

My files will be your Root folder. You can define Root folder with forward slash (/).

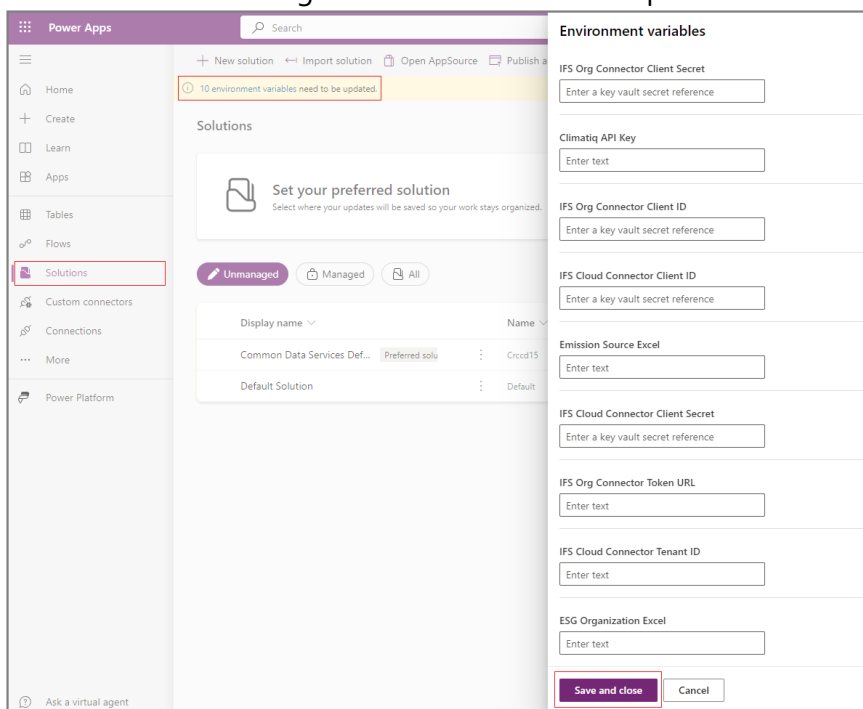
Ex: My files > Emission Tracker Data > ESG Templates > ExcelFileName.xlsx
 / Emission Tracker Data/ ESG Templates / ExcelFileName.xlsx



1.5 Update Environment Variables

Once you install application successfully, you need to update configuration data to work with IFS Cloud and Excel file.

1. Navigate to your Power apps(make.powerapps.com) Environment and you can see there is warning available to update Environment variables.

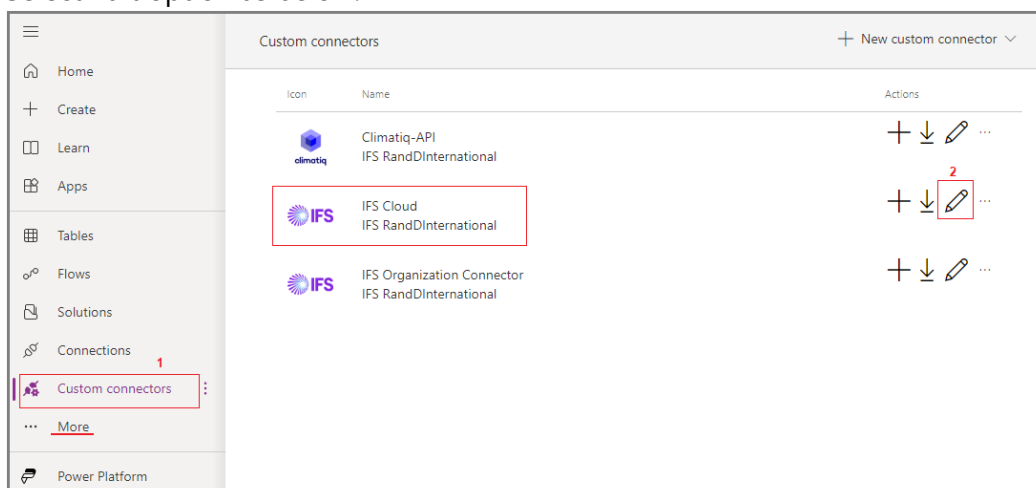


Update selected environment variables as below.

	Environment Variable Name	Value
1	Climatiq API Key	{ClimatiQ API Key Received from IFS}
2	ESG Organization Excel	Section 1.4
3	Emission Source Excel	Section 1.4
4	Scope 1 Data Upload Excel	Section 1.4
5	IFS Org Connector Client ID (IFS Cloud Customer Only)	/subscriptions/{AzureSubscriptionID}/resourceGroups/{ResourceGroupName}/providers/Microsoft.KeyVault/vaults/{VaultName}/secrets/{KeyName}
ex		/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/IFS_Cloud_Data/providers/Microsoft.KeyVault/vaults/IFS-Cloud-Keys/secrets/IFS-Org-Client-ID
6	IFS Org Connector Client Secret (IFS Cloud Customer Only)	/subscriptions/{AzureSubscriptionID}/resourceGroups/{ResourceGroupName}/providers/Microsoft.KeyVault/vaults/{VaultName}/secrets/{KeyName}
ex		/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/IFS_Cloud_Data/providers/Microsoft.KeyVault/vaults/IFS-Cloud-Keys/secrets/IFS-Org-Connector-Client-Secret
7	IFS Org Connector Token URL (IFS Cloud Customer Only)	
ex		ifs23r2bnddevcmb-ext-rnd.corporate.ifs.com/auth/realms/ifs23r2bnddevcmb
8	IFS Cloud Connector Client ID (IFS Cloud Customer Only)	/subscriptions/{AzureSubscriptionID}/resourceGroups/{ResourceGroupName}/providers/Microsoft.KeyVault/vaults/{VaultName}/secrets/{KeyName}
ex		/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/IFS_ESG_Integration/providers/Microsoft.KeyVault/vaults/Power-BI-SPN-Client-Key/secrets/Power-BI-SPN-Client-ID
9	IFS Cloud Connector Client Secret (IFS Cloud Customer Only)	/subscriptions/{AzureSubscriptionID}/resourceGroups/{ResourceGroupName}/providers/Microsoft.KeyVault/vaults/{VaultName}/secrets/{KeyName}
ex		/subscriptions/00000000-0000-0000-0000-000000000000/resourceGroups/IFS_ESG_Integration/providers/Microsoft.KeyVault/vaults/Power-BI-SPN-Client-Key/secrets/IFS-Org-Connector-Client-Secret
10	IFS Cloud Connector Tenant ID (IFS Cloud Customer Only)	{Tenant ID Received from IFS}
11	IFS Cloud Connector Workspace ID (IFS Cloud Customer Only)	{Workspace ID Received from IFS}

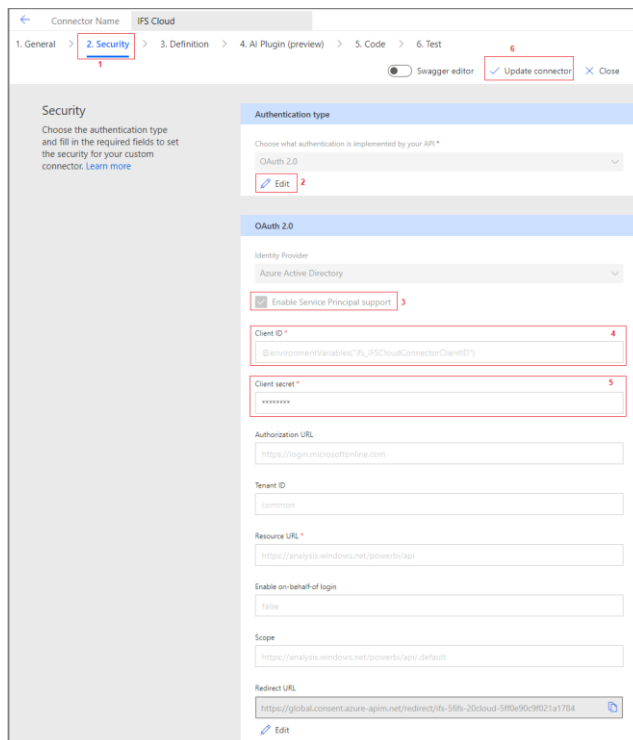
1.6 Update IFS Cloud Integration Connector (IFS Cloud Customers Only)

1. In the PowerApps environment, find the Custom Connectors section and choose the IFS Cloud Connector. If you don't see Custom Connectors in the Navigation menu, you can access it through the ...More option.
2. Select Edit option as below.



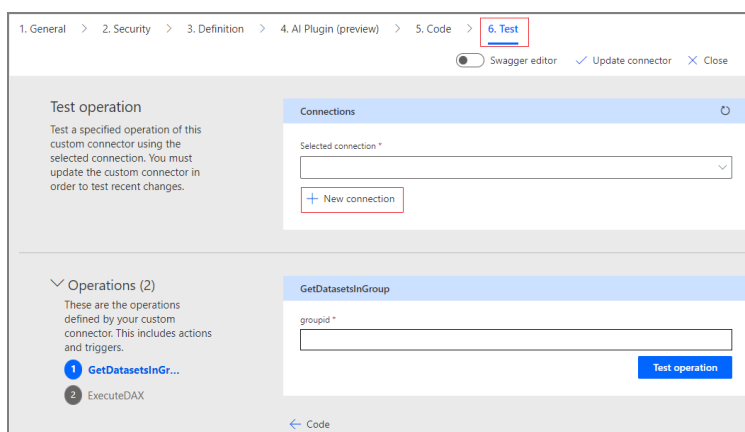
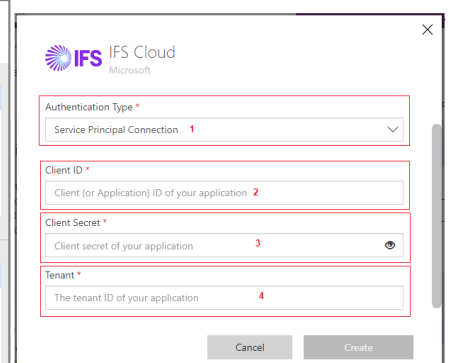
- Select the security section and click the edit button. Confirm that "Enable service principal support" is enabled. Then, enter the **Client ID** and **Client Secret** with the provided values as indicated below. Lastly, update the connector.

Client ID	@environmentVariables("ifs_IFSCloudConnectorClientID")
Client Secret	@environmentVariables("ifs_IFSCloudConnectorClientSecret")

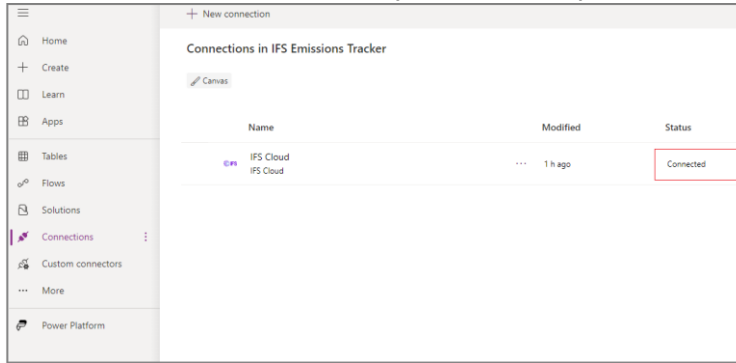


- Go to the Test Section within the connector and choose "New Connection." opt for the **Service Principal connection**. Enter the Client ID, Client Secret, and Tenant ID.

Client ID	Received from IFS and stored within Key Vault Section 1.3.2
Client Secret	Received from IFS and stored within Key Vault Section 1.3.2
Tenant ID	Received from IFS, and stored within Environment Variable

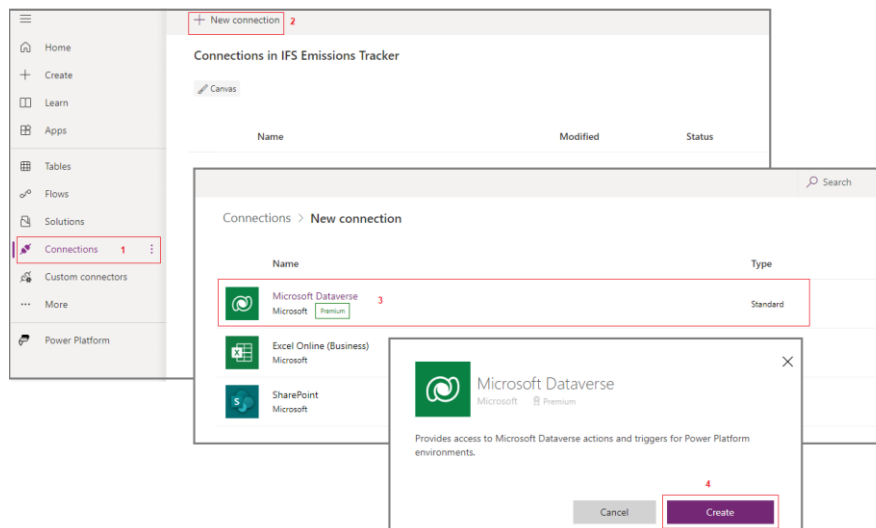
5. If the connection is successfully established, you will notice the following:









1.7 Configuring Environment Connections

1.7.1 Create Connections

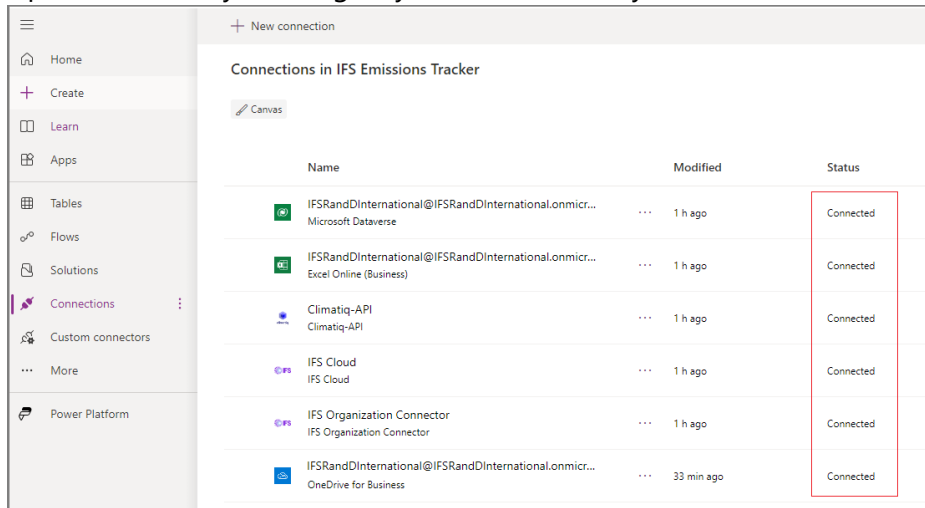
1. Access the "Connections" option within the Power Apps environment. If you don't see it listed under Navigation, you can locate it under the ...More menu.
2. Click on "New Connection" and then select **Dataverse** to initiate the creation of a new connection to Dataverse.



3. Follow the same steps for below Connections.

Connection Name	Allowed User	Connection
Dataverse	Any user	 Microsoft Dataverse Microsoft Premium
Excel Online (Business)	Any user	 Excel Online (Business) Microsoft
OneDrive For Business	Any user	 OneDrive for Business Microsoft
Climatiq-API	Any user	 Climatiq-API IFS RandInternational
IFS Cloud	(IFS Cloud Users Only) – Done under section 1.3.1	 IFS Cloud IFS RandInternational
IFS Organization Connector	(IFS Cloud Users Only)	 IFS Organization Connector IFS RandInternational

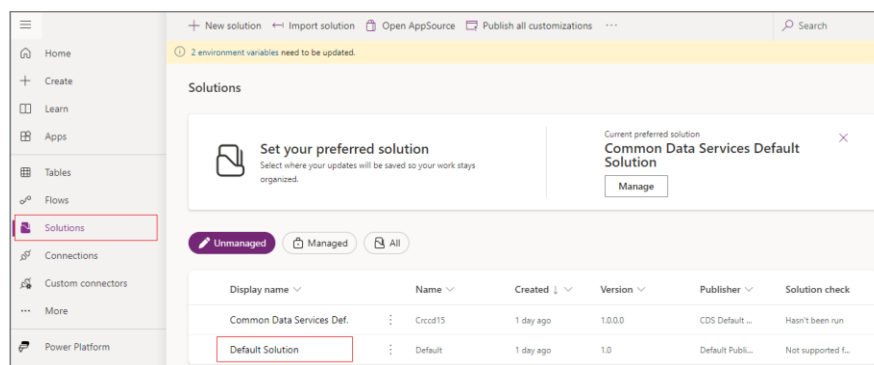
4. Upon successfully creating all your connections, you will see the following:



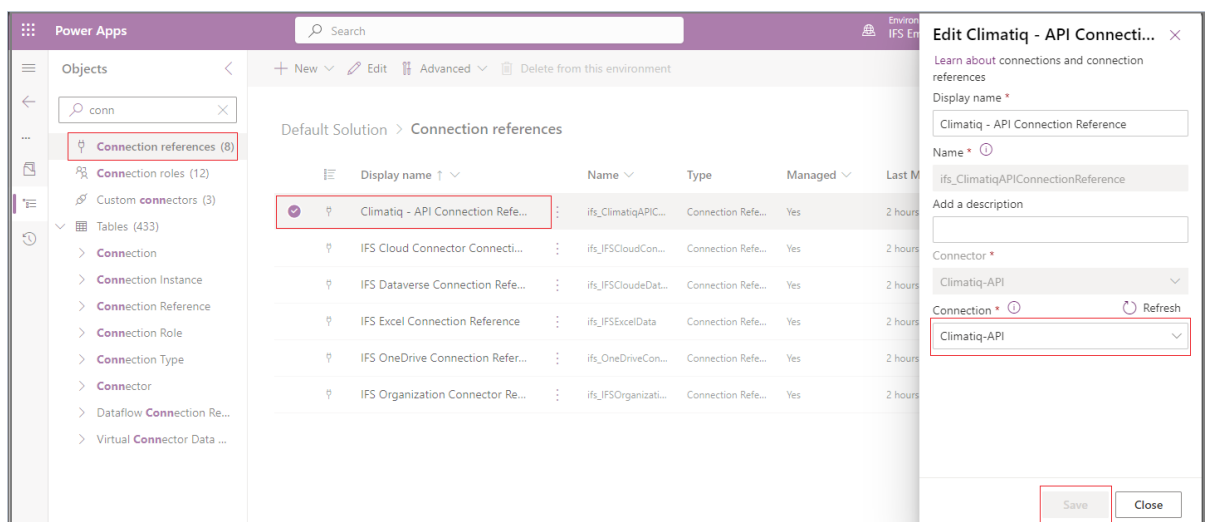
1.7.2 Configure Connections

In here we are going to configure connections created in [sections 1.7.1](#)

1. Access the "Solution" section within the PowerApps environment and select **Default Solution**.

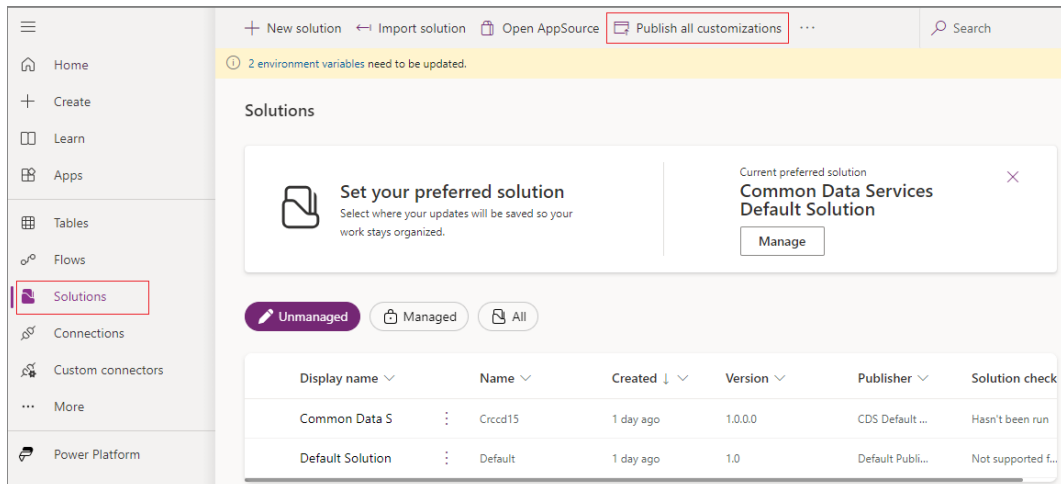


2. Within the default solution, search for **Connection Reference**.
3. Select each connection listed down in below and selected the connection you have created under [section 1.7.1](#).



Connection Name	Allowed user
Climatiq - API Connection Reference	Any User
IFS Dataverse Connection Reference	Any User
IFS Excel Connection Reference	Any User
IFS OneDrive Connection Reference	Any User
IFS Cloud Connector Connection Reference	IFS Cloud Customers Only
IFS Organization Connector Reference	IFS Cloud Customers Only

4. Navigate back to Solution and Select "Publish all Customizations"

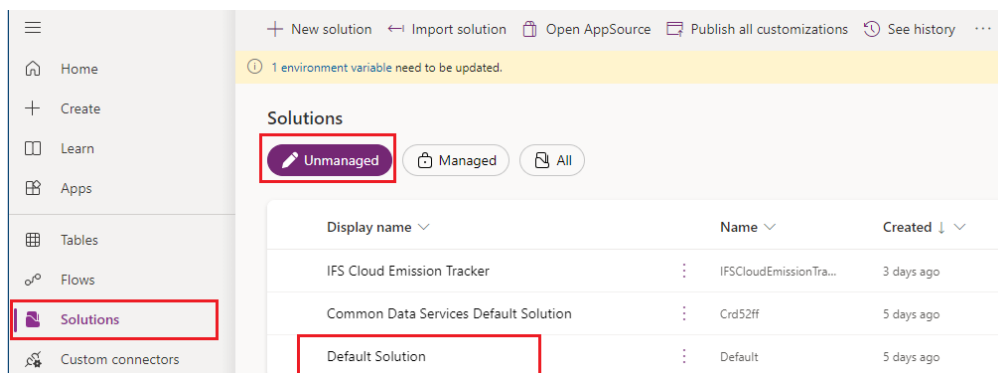


The screenshot shows the Power Platform Solutions page. The 'Publish all customizations' button in the top navigation bar is highlighted with a red box. Below the navigation bar, there is a notification: '2 environment variables need to be updated.' The main content area shows a 'Set your preferred solution' card for 'Common Data Services Default Solution' with a 'Manage' button. Below this are filters for 'Unmanaged', 'Managed', and 'All'. A table lists solutions with columns: Display name, Name, Created, Version, Publisher, and Solution check.

Display name	Name	Created	Version	Publisher	Solution check
Common Data S	Crcdd15	1 day ago	1.0.0.0	CDS Default ...	Hasn't been run
Default Solution	Default	1 day ago	1.0	Default Publ...	Not supported f...

1.8 Turning on the Emission Tracker Flows

1. In your Environment, from the navigation Select Solutions.



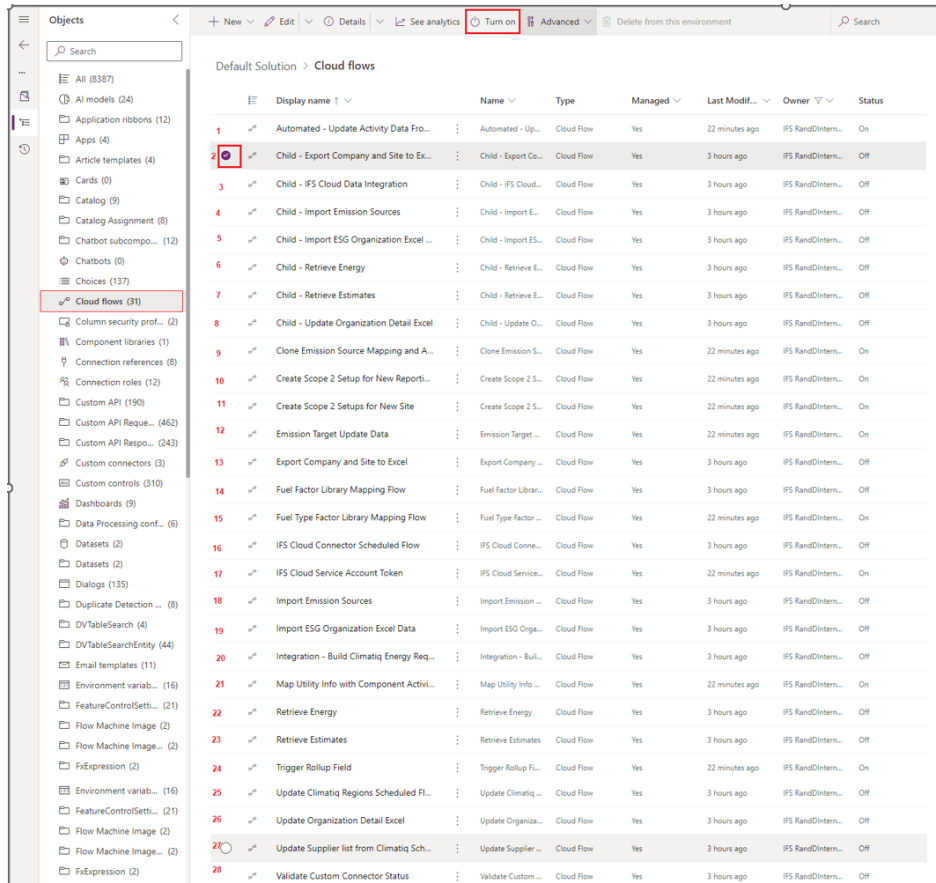
The screenshot shows the Power Platform Solutions page. The 'Unmanaged' filter button is highlighted with a red box. Below the filters, a table lists solutions with columns: Display name, Name, and Created. The 'Default Solution' row is highlighted with a red box.

Display name	Name	Created
IFS Cloud Emission Tracker	IFSCloudEmissionTra...	3 days ago
Common Data Services Default Solution	Crd52ff	5 days ago
Default Solution	Default	5 days ago

- Under the Unmanage tab select Default Solution and search for cloud flows. You can see most of the flow's status will be off. We need to turn on all these flows.

Note: Turn on Child flows first.

- Select the flow and click on "Turn On" button on the tool bar. **(If flow status is OFF)**

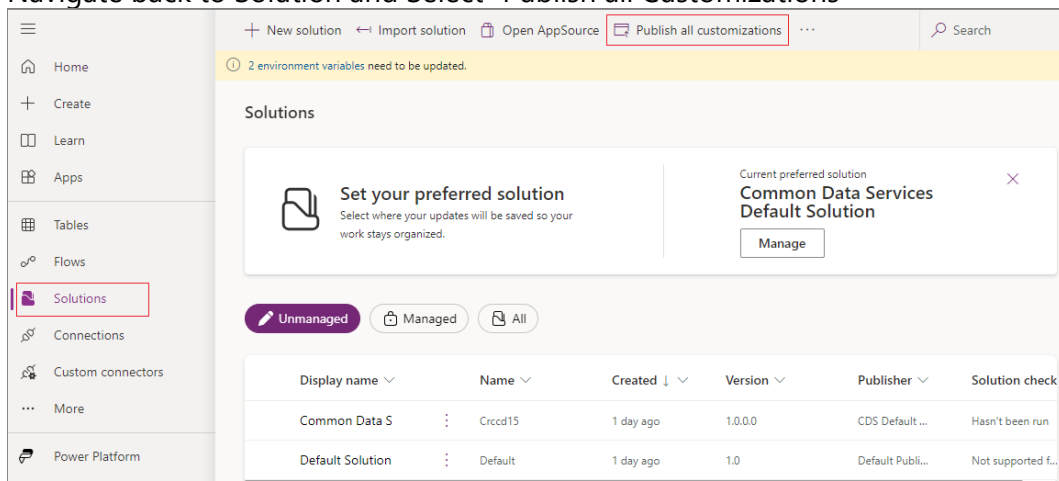


ID	Display name	Name	Type	Managed	Last Modif...	Owner	Status
1	Automated - Update Activity Data Fro...	Automated - Up...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
2	Child - Export Company and Site to Ex...	Child - Export Co...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
3	Child - IFS Cloud Data Integration	Child - IFS Cloud...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
4	Child - Import Emission Sources	Child - Import E...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
5	Child - Import ESG Organization Excel ...	Child - Import ES...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
6	Child - Retrieve Energy	Child - Retrieve E...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
7	Child - Retrieve Estimates	Child - Retrieve E...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
8	Child - Update Organization Detail Excel	Child - Update O...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
9	Clone Emission Source Mapping and A...	Clone Emission S...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
10	Create Scope 2 Setup for New Report...	Create Scope 2 S...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
11	Create Scope 2 Setups for New Site	Create Scope 2 S...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
12	Emission Target Update Data	Emission Target ...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
13	Export Company and Site to Excel	Export Company ...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
14	Fuel Factor Library Mapping Flow	Fuel Factor Librar...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
15	Fuel Type Factor Library Mapping Flow	Fuel Type Factor ...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
16	IFS Cloud Connector Scheduled Flow	IFS Cloud Conne...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
17	IFS Cloud Service Account Token	IFS Cloud Service...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
18	Import Emission Sources	Import Emission ...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
19	Import ESG Organization Excel Data	Import ESG Orga...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
20	Integration - Build Climatq Energy Req...	Integration - Bull...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
21	Map Utility Info with Component Activi...	Map Utility Info ...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
22	Retrieve Energy	Retrieve Energy	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
23	Retrieve Estimates	Retrieve Estimates	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
24	Trigger Rollup Field	Trigger Rollup Fl...	Cloud Flow	Yes	22 minutes ago	IFS RandIntern...	On
25	Update Climatq Regions Scheduled Fl...	Update Climatq ...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
26	Update Organization Detail Excel	Update Organiza...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
27	Update Supplier list from Climatq Sch...	Update Supplier ...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off
28	Validate Custom Connector Status	Validate Custom ...	Cloud Flow	Yes	3 hours ago	IFS RandIntern...	Off

If you are **None-IFS Cloud Customers**, you **cannot** Turn On, flow number 3,16,20,28.

Now you are ready to Go ...

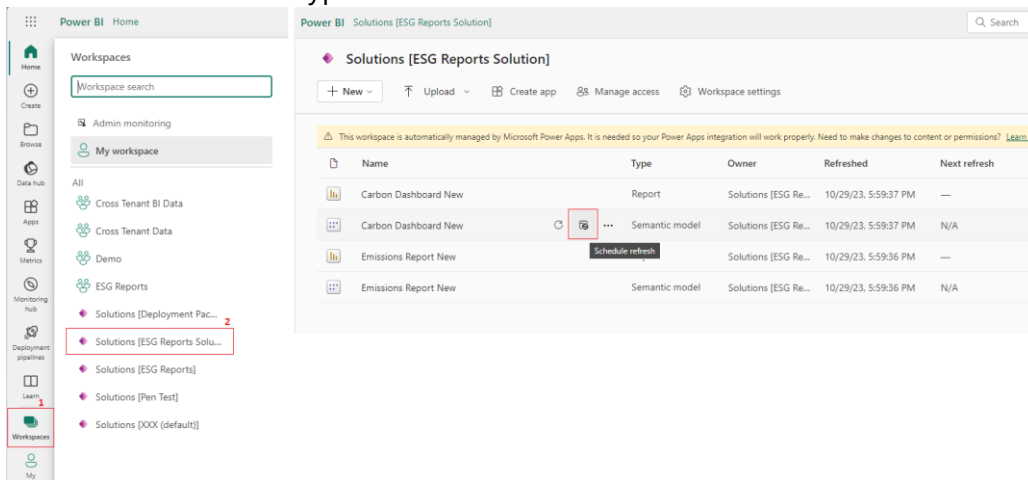
Navigate back to Solution and Select "Publish all Customizations"



Display name	Name	Created	Version	Publisher	Solution check
Common Data S	Crcdd15	1 day ago	1.0.0.0	CDS Default ...	Hasn't been run
Default Solution	Default	1 day ago	1.0	Default Publi...	Not supported f...

1.9 Refresh Power BI Reports

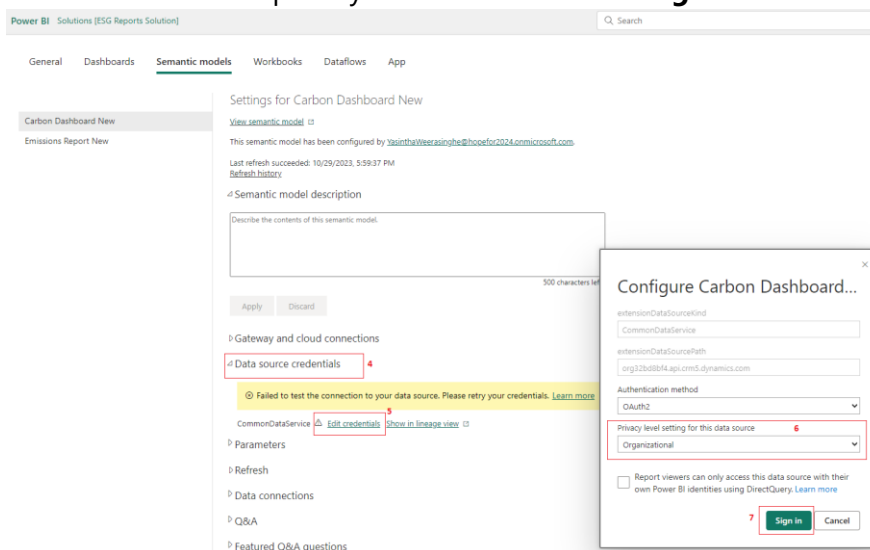
1. Login to [Power BI](#)
2. Go to Workspace and select workspace newly created as same name as your Environment name. This will open Emission Tracker reports.
3. From Semantic model type select Schedule Refresh.



The screenshot shows the Power BI Home interface. On the left, the 'Workspaces' section is visible with a search bar and a list of workspaces. The 'Solutions [ESG Reports Solution]' workspace is selected. The main area displays a table of solutions:

Name	Type	Owner	Refreshed	Next refresh
Carbon Dashboard New	Report	Solutions [ESG Re...	10/29/23, 5:59:37 PM	—
Carbon Dashboard New	Semantic model	Solutions [ESG Re...	10/29/23, 5:59:37 PM	N/A
Emissions Report New	Semantic model	Solutions [ESG Re...	10/29/23, 5:59:36 PM	—
Emissions Report New	Semantic model	Solutions [ESG Re...	10/29/23, 5:59:36 PM	N/A

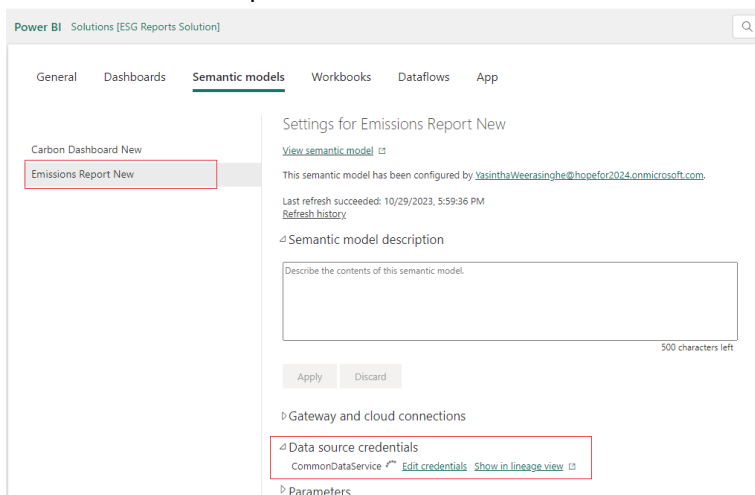
4. Under Data source credentials, select edit credentials. It will populate popup and from there select privacy level as **Organizational** and sign in.



The screenshot shows the 'Settings for Carbon Dashboard New' page in Power BI. The 'Data source credentials' section is expanded, showing a 'CommonDataService' connection. A yellow error message states: 'Failed to test the connection to your data source. Please retry your credentials. Learn more'. An 'Edit credentials' button is highlighted. A dialog box titled 'Configure Carbon Dashboard...' is open, showing the following fields:

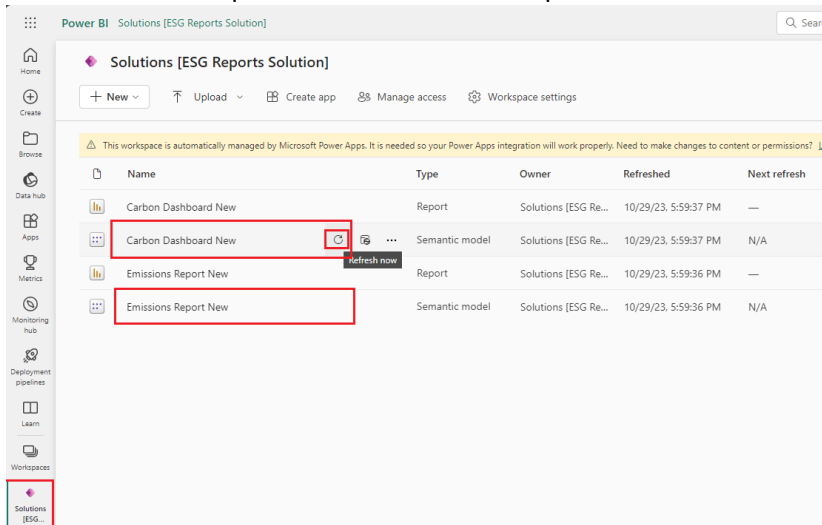
- extensionDataSourceKind: CommonDataService
- extensionDataSourcePath: org/32b08f4-api-cms5.dynamics.com
- Authentication method: OAuth2
- Privacy level setting for this data source: Organizational
- Report viewers can only access this data source with their own Power BI identities using DirectQuery. Learn more
- Buttons: Sign in, Cancel

5. Select the Other report and do the same.



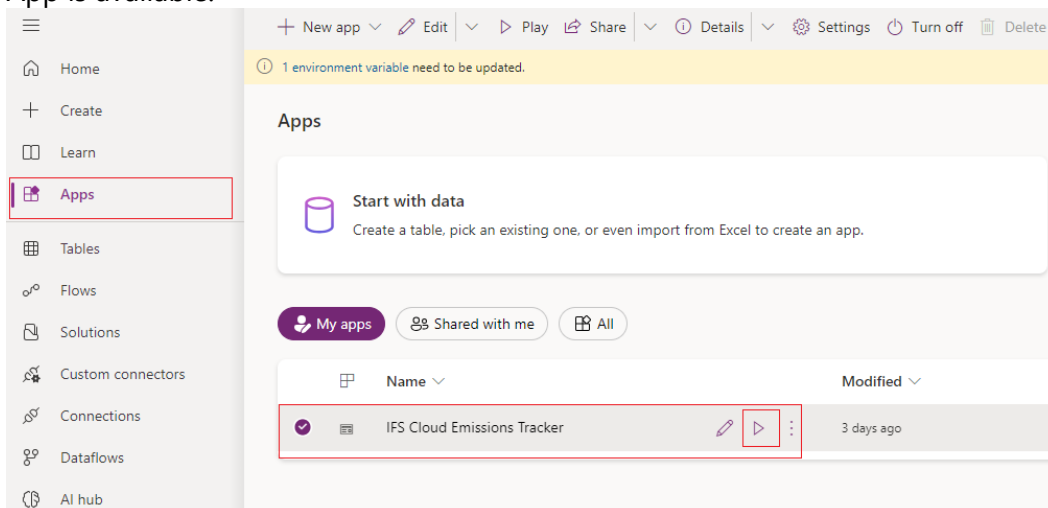
The screenshot shows the 'Settings for Emissions Report New' page in Power BI. The 'Data source credentials' section is expanded, showing a 'CommonDataService' connection. An 'Edit credentials' button is highlighted.

6. Go back to workspace and Refresh the Reports now.



1.10 Run Your Emissions Tracker Application

In your Environment, from navigation select Apps and now you can see **Emissions Tracker** App is available.



2. Security Roles and Sharing Emissions Tracker Application with Users

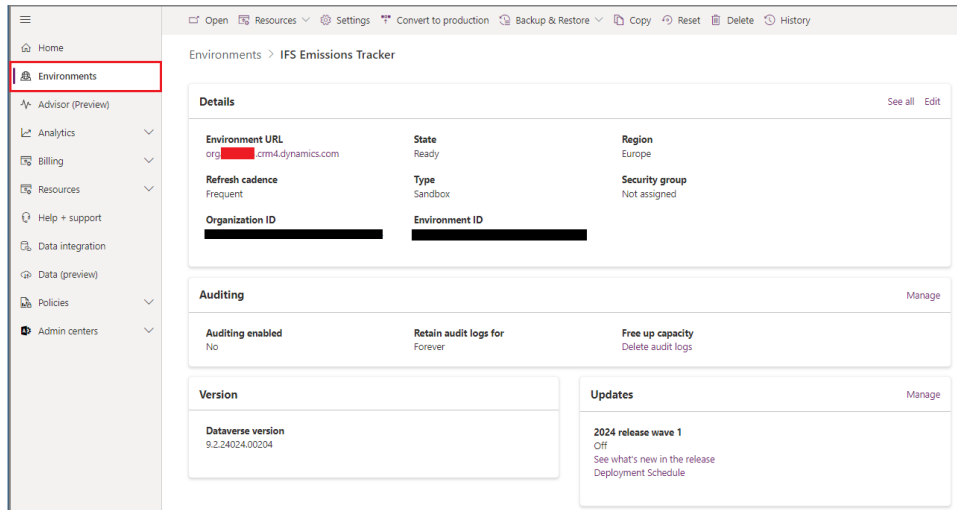
The Emissions Tracker currently includes the following security roles:

Role Name	Access Level
IFS ESG Manager	Full Access to All Tables
ESG Admin	Access to Error Logs

2.1 Share the Application with Users

1. Navigate to Admin panel of your Environment. ([Power Platform admin center](#))

2. Select the Environment and within the Environment Details select the Environment URL



Next...

1. IFS Cloud Emissions Tracker Installation Guide
2. IFS Cloud Emissions Tracker Configuration Guide
- 3. IFS Cloud Emissions Tracker Analysis Model Configuration Guide**
4. IFS Cloud Emissions Tracker User Guide
5. IFS Cloud Emissions Tracker Support and Troubleshooting Guide