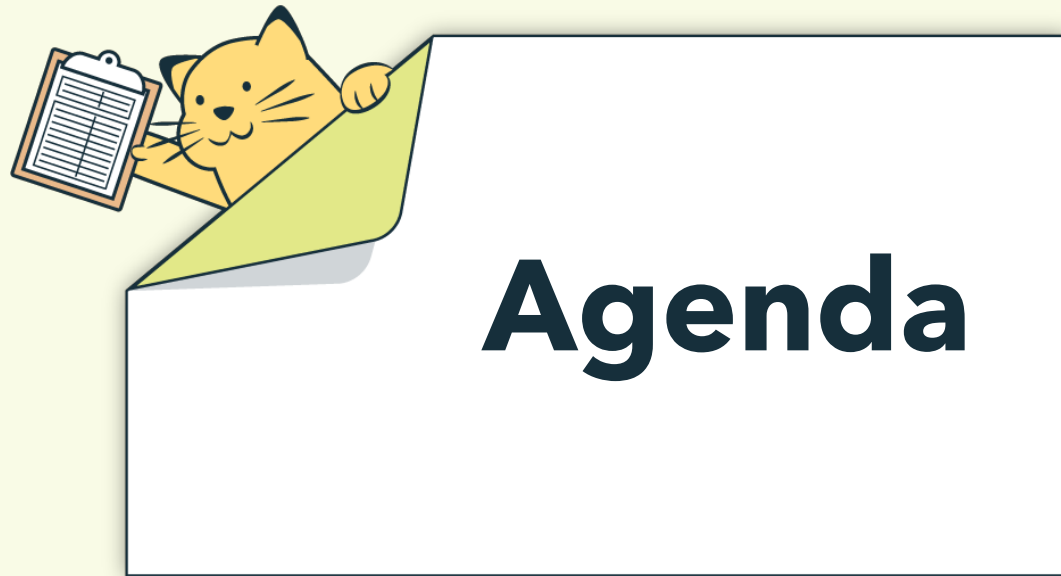


CarbonHub Set Up: Integrating your UtilityManagement Data



Zac O'Donnell
Manager of Product Development

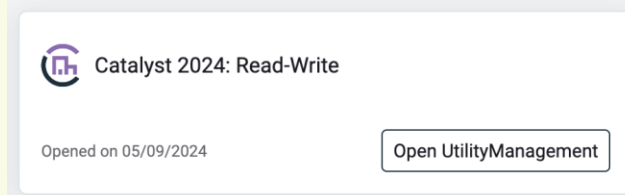




- ✓ Add a Meter and Account in UtilityManagement
- ✓ Link Meter to new Emissions Source
- ✓ Add bill and generate emissions record
- ✓ Add a record in CarbonHub
- ✓ Reporting emissions in UtilityManagement and CarbonHub
- ✓ Going Deeper - Extra Coolness

Let's get started!

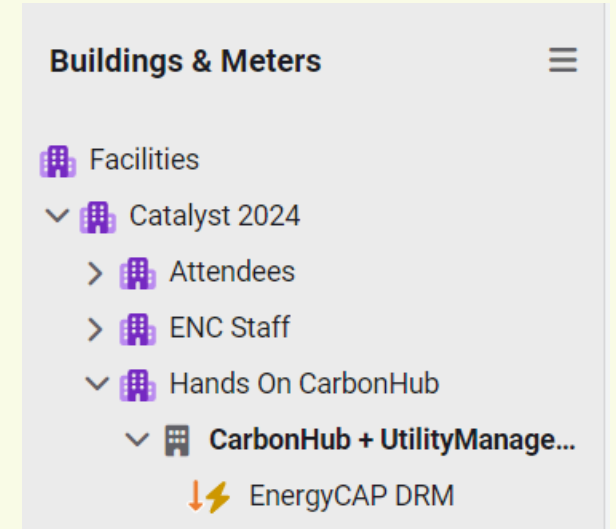
1. Log in to Catalyst 2024: Read-Write (UtilityManagement)



2. Go to Building & Meters module
3. Find your way to the **CarbonHub + UtilityManagement** Building under

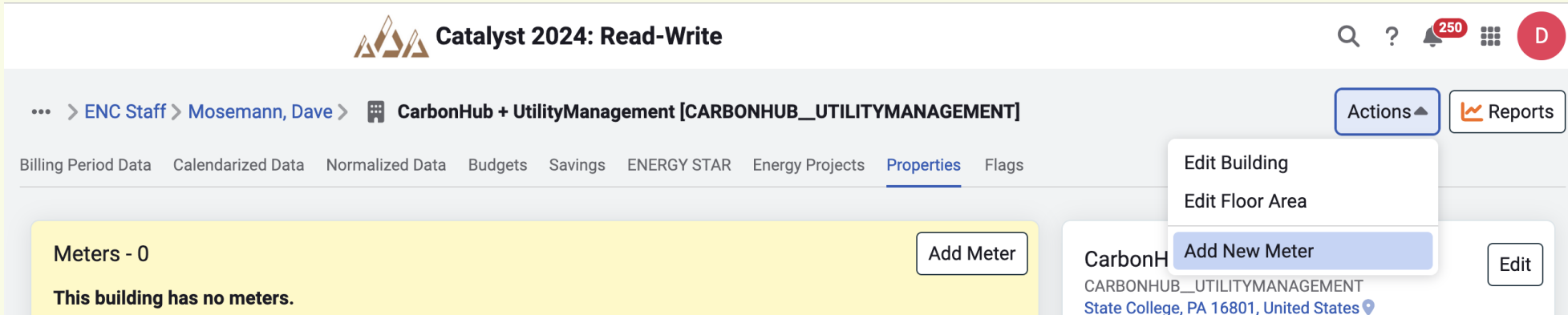
1. Catalyst 2024

2. Hands On CarbonHub



Add Electric Meter in UtilityManagement

1. From the actions menu, select **Add New Meter**



2. Set the following
 1. **Commodity** = Electric
 2. **Name** = <Your Organization> <Your Initials>-ELE (example: EnergyCAP ZRO-ELE)
 3. **Code** = <YOUR ORGANIZATION>_<YOUR INITIALS>-ELE (example: ENERGYCAP_ZRO-ELE)
3. Click Save

Link Meter to an Account

1. From the Properties tab, click **Add Linked Account** button

▼ Linked Accounts - 0

Link at least one account to this meter to enter bill data. Only active meters can receive new bills. Inactive meters may not be displayed depending on your settings.

+ Add Linked Account

2. Set the following
 1. **Vendor** = Hands On Carbonhub Vendor (type to search)
 2. **Rate Schedule** = Electric Commercial
 3. **Account** = Add New...

Add New Linked Account

CancelSave

Vendor role

Distribution and Supply▼

Account is required

⚠ Choose or add...▼

Meter GL Record

Choose or add...▼✎

Vendor

Hands On Carbonhub Vendor▼

Rate Schedule

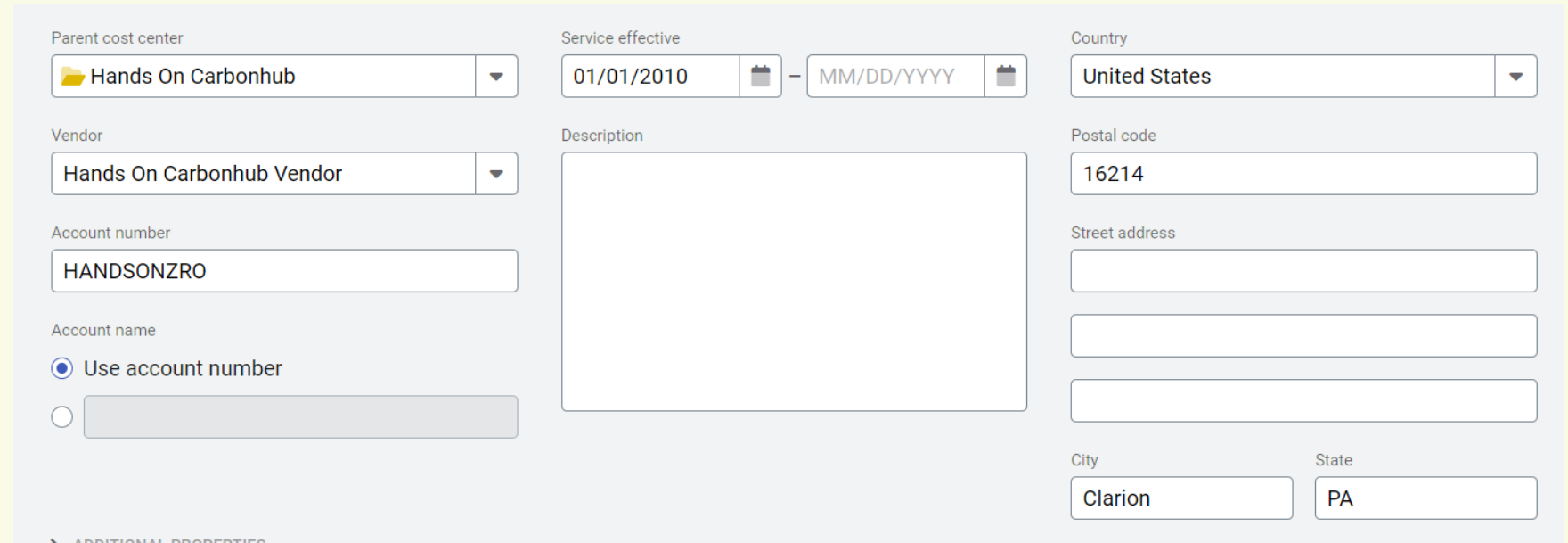
Electric Commercial▼

Effective

01/01/2010📅

Link Meter to an Account - Add Account

1. Add a new Account



The screenshot shows a web form for adding a new account. The form is organized into several sections:

- Parent cost center:** A dropdown menu with "Hands On Carbonhub" selected.
- Service effective:** Two date pickers. The first shows "01/01/2010" and the second shows "MM/DD/YYYY".
- Country:** A dropdown menu with "United States" selected.
- Vendor:** A dropdown menu with "Hands On Carbonhub Vendor" selected.
- Description:** A large, empty text area.
- Account number:** A text input field containing "HANDSONZRO".
- Account name:** Two radio buttons. The first is selected and labeled "Use account number". The second is unlabeled.
- Postal code:** A text input field containing "16214".
- Street address:** Three stacked text input fields, all empty.
- City:** A text input field containing "Clarion".
- State:** A text input field containing "PA".

At the bottom left of the form, there is a link that says "ADDITIONAL PROPERTIES".

2. Set the following

1. **Account number** = <Your Organization> <Your Initials>-ACCT (example: EnergyCAP ZRO-ACCT)
2. **Postal code** = Your choice

3. Click Save




Link Meter to an Account - Wrap up

Account added - time to save the link

Click save

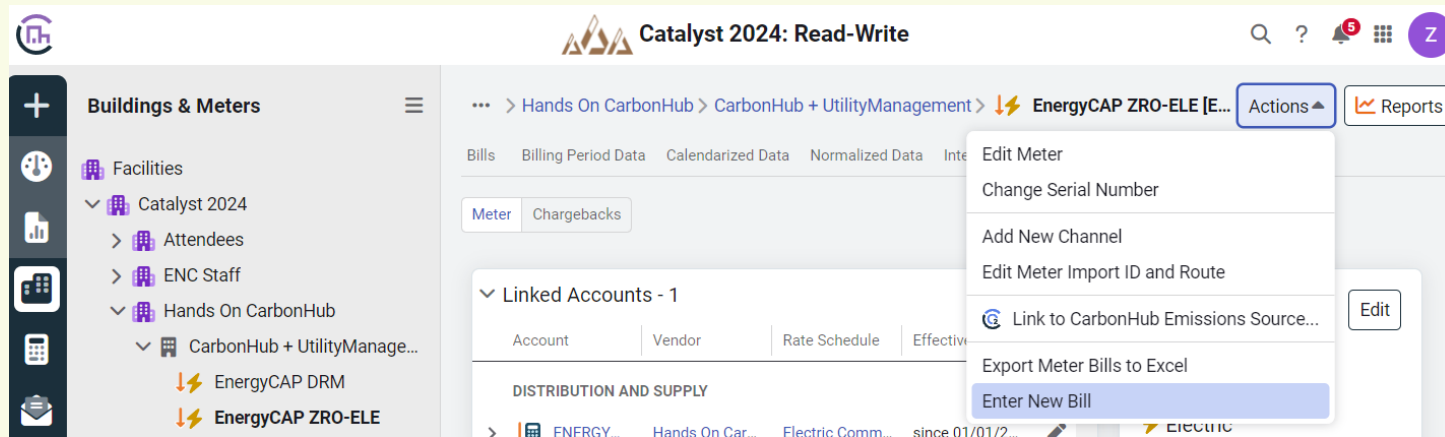
Add New Linked Account

CancelSave

Vendor role	Account	Meter GL Record
<div>Distribution and Supply</div>	<div>ENERGYCAP ZRO ACCT</div>	<div>ENERGYCAP ZRO ACCT ECH_EUM_VI</div> <div></div>
Vendor	Rate Schedule	Effective
<div>Hands On Carbonhub Vendor</div>	<div>Electric Commercial</div>	<div>01/01/2010</div> <div></div>

Enter a Bill

1. From the Meter Actions Menu, click **Enter New Bill**



2. Click the linked account

3. Click **Open** to open a new batch if prompted (you may not if you already have on open)

4. Enter the following

1. **Start** = 1/1/2024
2. **Days** = 31
3. **Amount due** = \$1000
4. **Usage** = 10000
5. **Total Cost** = \$1000
6. Click **Save**

Enter a Bill

...

> Hands On CarbonHub > CarbonHub + UtilityManagement > ⚡ EnergyCAP ZRO-ELE [E...

Actions▼

Reports

Bills

Billing Period Data

Calendarized Data

Normalized Data

Interval Data

Budgets

Savings

Properties

Flags

Void

All Bills▼



Not filtered▼

Filters⁰

\$1,000.00 / 1 bills

Columns

Sort

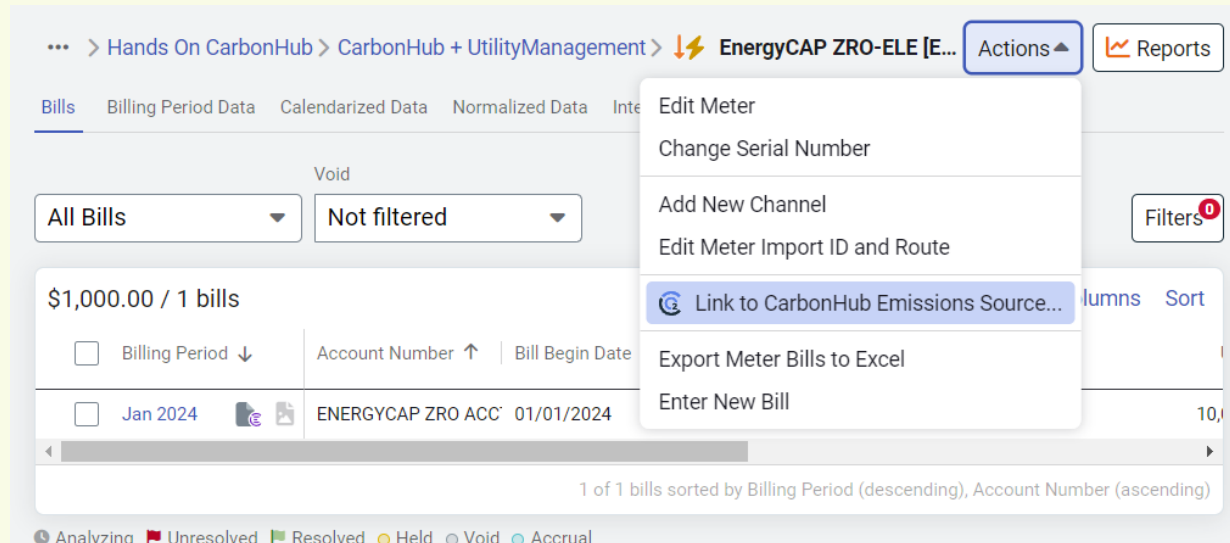
<input type="checkbox"/>	Billing Period ↓	Account Number ↑	Bill Begin Date	Bill End Date	Meter Cost	
<input type="checkbox"/>	Jan 2024  	ENERGYCAP ZRO ACC	01/01/2024	02/01/2024	\$1,000.00	10,000

1 of 1 bills sorted by Billing Period (descending), Account Number (ascending)

**Ok, Cool, Bills in Utility
Management. I've seen
this before**

Link Meter to an Emissions Source

1. From the Meter's action menu, click **Link to CarbonHub Emissions Source**



2. Click **Add New...**

Link Meter to an Emissions Source

1. You need to provide only the parent collection - where to place it.
 1. Choose “Hands On Carbonhub”
2. Emissions source automatically gets location based on meter
 1. You’ll want to make sure your meters are in the right location before doing this
3. Emission source automatically picks the default factor for the commodity
 1. In this case Electric has a special option “Use Emissions Source Location”

New Emissions Source

CancelSave

NameEnergyCAP ZRO-ELECodeENERGYCAP ZRO-ELE

Type (commodity) ⓈElectricParent collection ⓈHands On Carbor

Default scope category ⓈScope 2 - Purchased Electricity

Learn more about scope categories

Default GHG factor ⓈUse Emissions Source Location

Factor details

Notes

LOCATION

CountryUnited States

Postal code16801

Link Meter to an Emissions Source

1. Click **Save**
2. Your meter and emissions source are now linked!

... > Hands On CarbonHub > CarbonHub + UtilityManagement > ⚡ EnergyCAP ZRO-ELE [ENERGYCAP ZRO-ELE] [Open in ECH](#)

Buildings & Meters

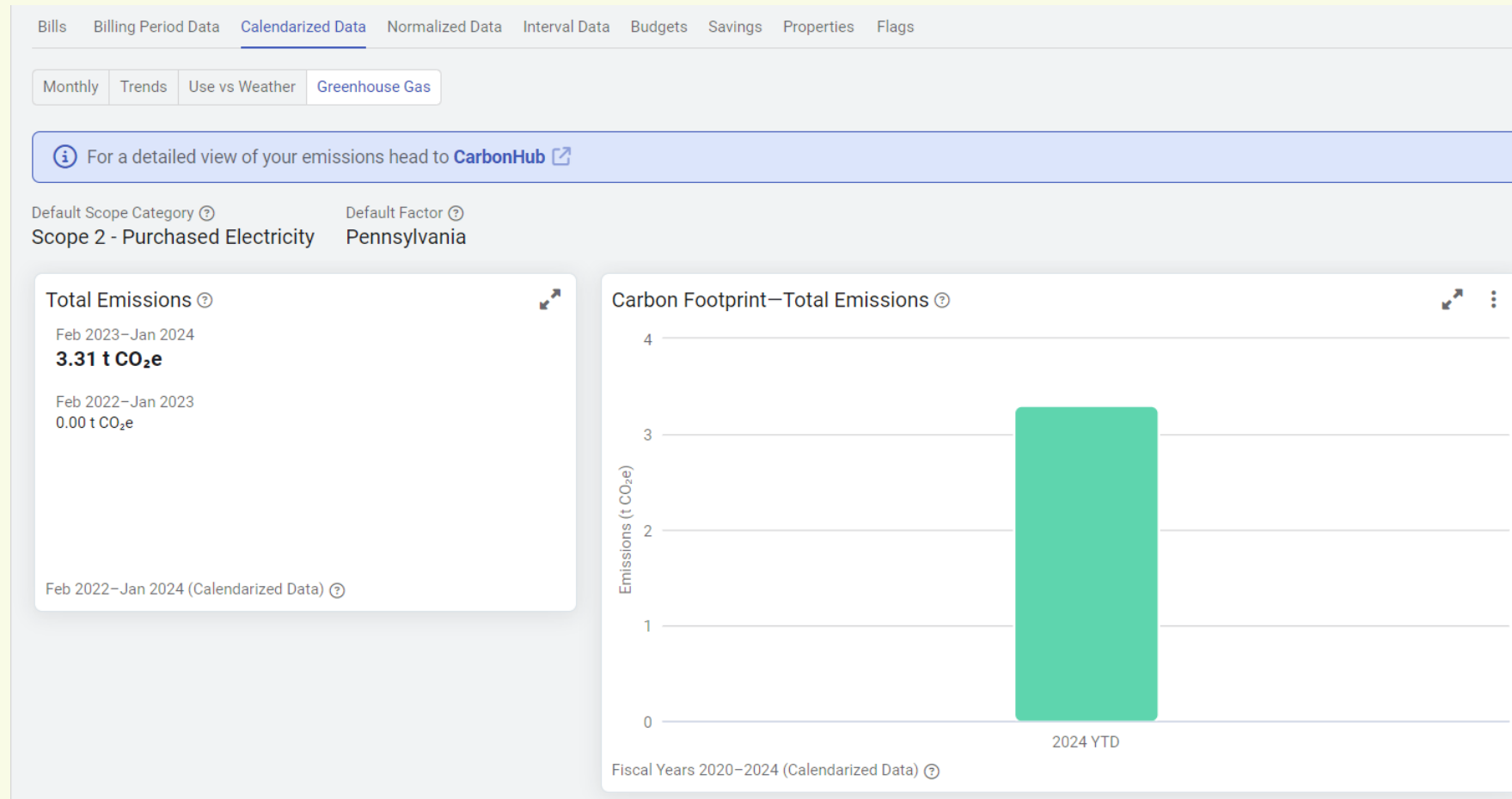


- Facilities
- ▼ Catalyst 2024
 - > Attendees
 - > ENC Staff
- ▼ Hands On CarbonHub
 - ▼ CarbonHub + UtilityManage...
 - ⚡ EnergyCAP DRM
 - ⚡ EnergyCAP ZRO-ELE

Meter Linked! [View in CarbonHub](#)

Bills on Meters linked to Emissions Sources generate Emissions Records

1. Go to Calendarized > Greenhouse Gas tab



**Wait, All I have to do is
link it and emissions are
being tracked?**

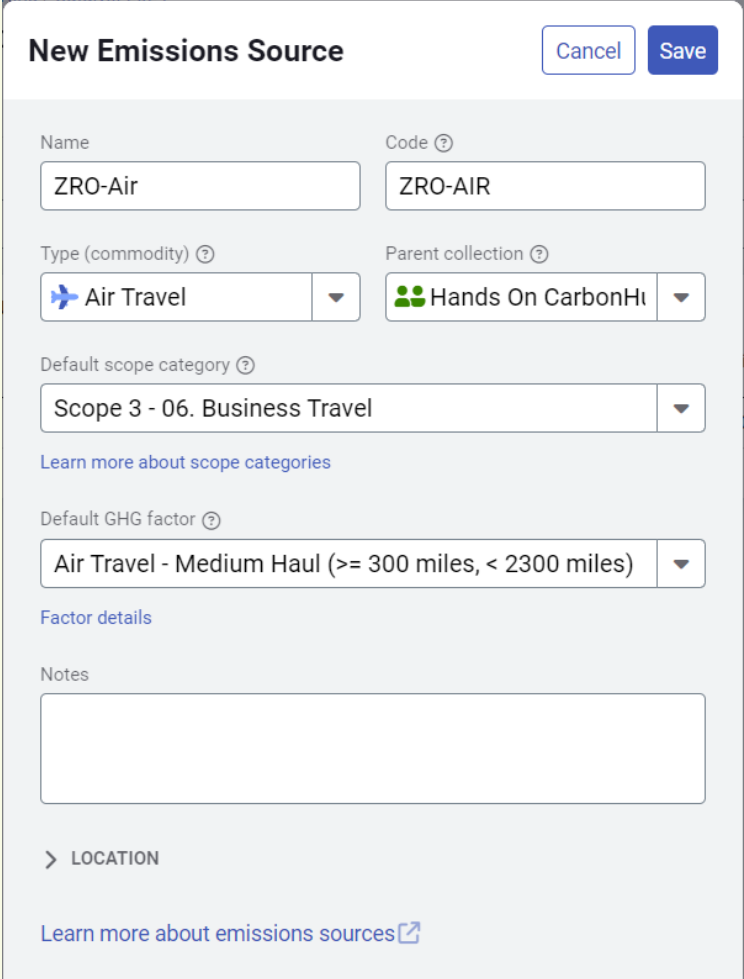
Linked records allow editing some fields, and react to bill updates too

1. Go to **Records** tab
2. Click on link in **Record ID** column to view record details
3. Change factor to RFC East or RFC West
 1. If you are using Pennsylvania like me, you'll find RFC East is the same value right now so numbers won't change
4. See changes emissions total in **Insights** tab
5. Go back to UtilityManagement to see update emissions in Calendarized > Greenhouse Gas tab
6. Go to bills list and click on bill
7. Edit bill to see updated emissions in UtilityManagement and CarbonHub
 1. Changing use will change emissions data where cost will have no effect because factor is use-based.
8. Void or delete the bill - the emission record will be removed

**No matter how bills get
onto a meter that is linked,
emission records will be
created to match**

Add an Emissions Source not linked to UtilityManagement

1. Go to CarbonHub, open **Hands On Carbonhub** collection under Catalyst 2024
2. From the Actions menu, click **New Emissions Source**
3. Set the following
 1. Name = <initials>-AIR
 2. Type = Air Travel
 3. Switch to Cost
 4. Scope Category = Business Travel (defaulted)
 5. Factor = Air Travel – Medium Haul (defaulted)
4. Click Save



The screenshot shows the 'New Emissions Source' form in CarbonHub. The form has a title bar with 'New Emissions Source' and 'Cancel' and 'Save' buttons. The form fields are as follows:

- Name:** ZRO-Air
- Code:** ZRO-AIR
- Type (commodity):** Air Travel (with a dropdown arrow)
- Parent collection:** Hands On CarbonHi (with a dropdown arrow)
- Default scope category:** Scope 3 - 06. Business Travel (with a dropdown arrow)
- Default GHG factor:** Air Travel - Medium Haul (>= 300 miles, < 2300 miles) (with a dropdown arrow)
- Factor details:** (link)
- Notes:** (text area)
- LOCATION:** (link)
- Learn more about emissions sources:** (link)

Add an Emissions Record to match

1. Supplier = Delta Airlines
2. Start and End Dates (I picked Monday)
3. Scope Category and Factor are provided by default matching the emissions source
 1. This factor is usage-based (mileage) so we are doing a Use type
4. Provide Quantity (required) and Cost (not required)

New Record Cancel Save

Emissions source: ▼ Supplier: ▼
[Create an emission source](#)

Start date: 📅 End date: 📅

EMISSIONS DETAILS AND CALCULATIONS

☒ Use ☐ Cost ☐ Direct/Offset

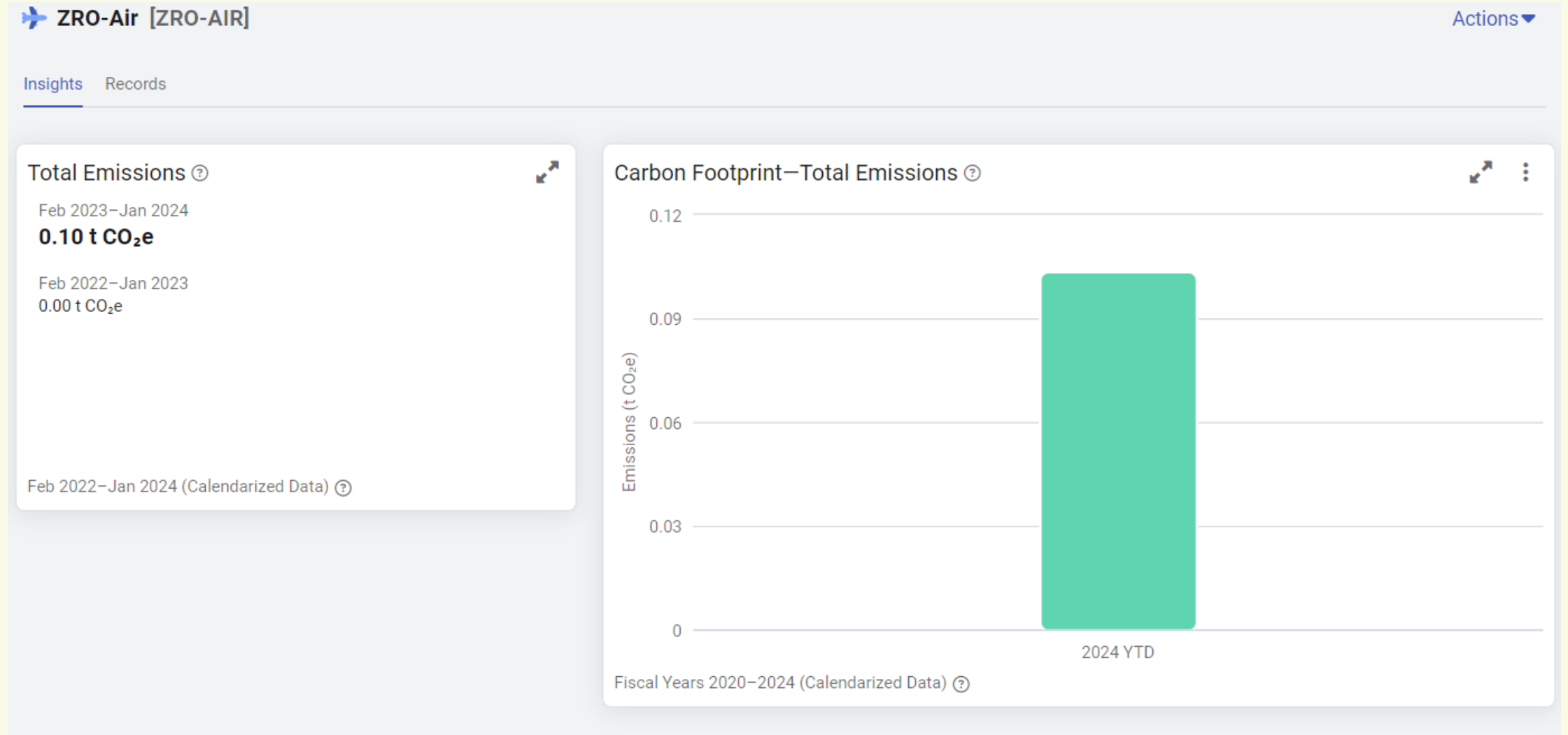
Scope category: ▼
[Learn more about scope categories](#)

Factor: ▼
[Factor details](#)

Quantity: Unit: ▼

Cost: Currency: ▼

Note the new record with calculated emissions



From the parent organization/collection. Do you see what's different?

CarbonHub

Total Emissions ⓘ

Feb 2023–Jan 2024

4.88 t CO₂e

Feb 2022–Jan 2023

0.00 t CO₂e

Feb 2022–Jan 2024 (Calendarized Data) ⓘ

Scope 1 Emissions ⓘ

No Data
Returned

Scope 2 Emissions ⓘ

Feb 2023–Jan 2024

4.77 t CO₂e

Feb 2022–Jan 2023

0.00 t CO₂e

Feb 2022–Jan 2024 (Calendarized Data) ⓘ

Scope 3 Emissions ⓘ

Feb 2023–Jan 2024

0.10 t CO₂e

Feb 2022–Jan 2023

0.00 t CO₂e

Feb 2022–Jan 2024 (Calendarized Data) ⓘ

Utility Management

Total Emissions ⓘ

Feb 2023–Jan 2024

4.77 t CO₂e

Feb 2022–Jan 2023

0.00 t CO₂e

Feb 2022–Jan 2024 (Calendarized Data) ⓘ

Scope 1 Emissions ⓘ

No Data
Returned

Scope 2 Emissions ⓘ

Feb 2023–Jan 2024

4.77 t CO₂e

Feb 2022–Jan 2023

0.00 t CO₂e

Feb 2022–Jan 2024 (Calendarized Data) ⓘ

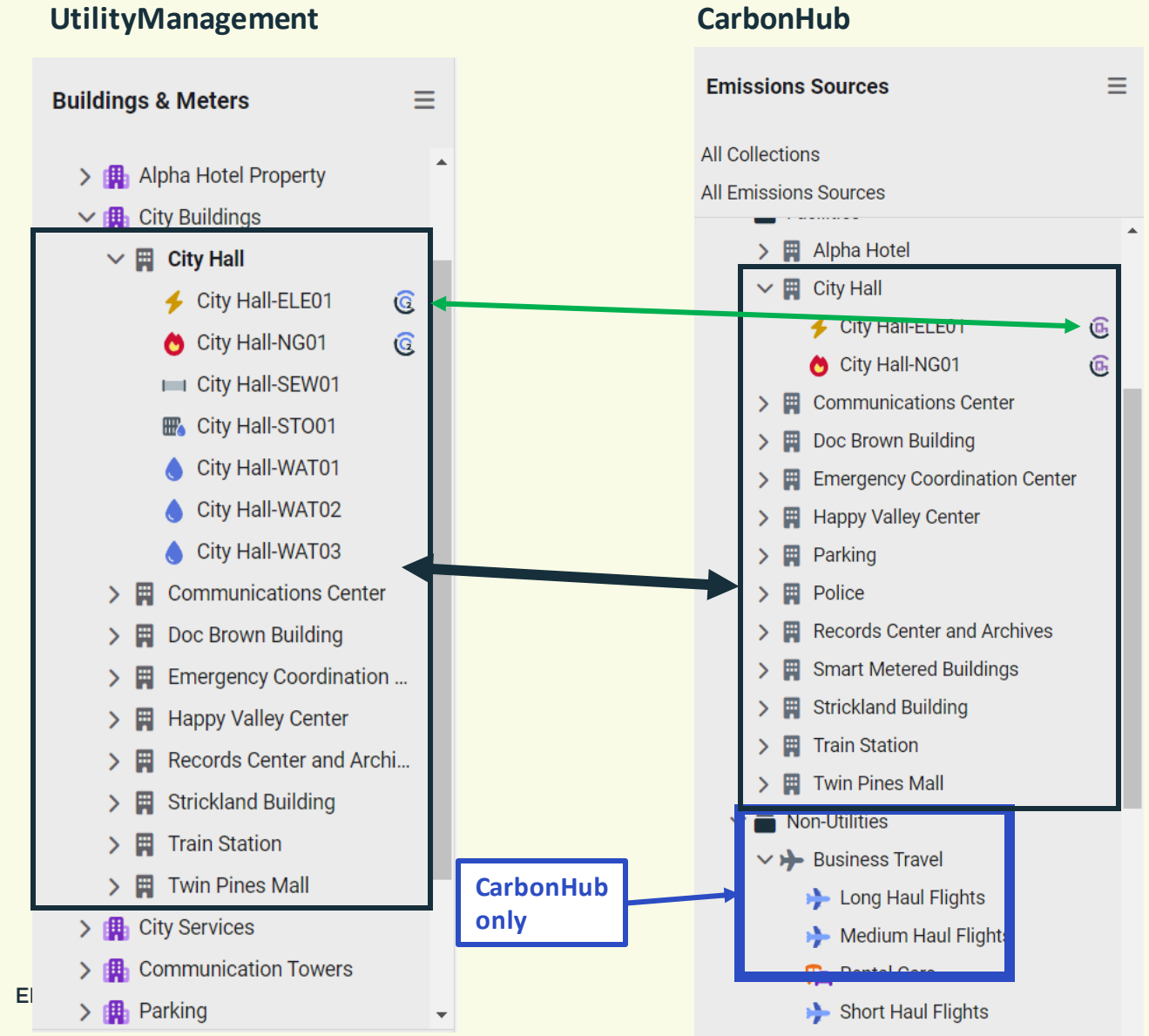
Scope 3 Emissions ⓘ

No Data
Returned

Emissions data in UtilityManagement

Only emissions data from emissions sources linked to meters will appear in UtilityManagement powerviews

CarbonHub powerviews include both linked and unlinked emissions data



Linking a meter to an emissions source is not required, but it depends on how you plan to report the emissions

**(This is how far we got in
the live session. What
remains is additional
content not presented in
person)**

Emissions data in UtilityManagement - Dashboards

Dashboard widgets that do not have a collection or emissions source filter will only show emissions data linked to meters

1. Bar rank
2. Place Performance Comparison
3. Trend Chart
4. KPI

Comparable CarbonHub widgets that contain linked and unlinked emissions data

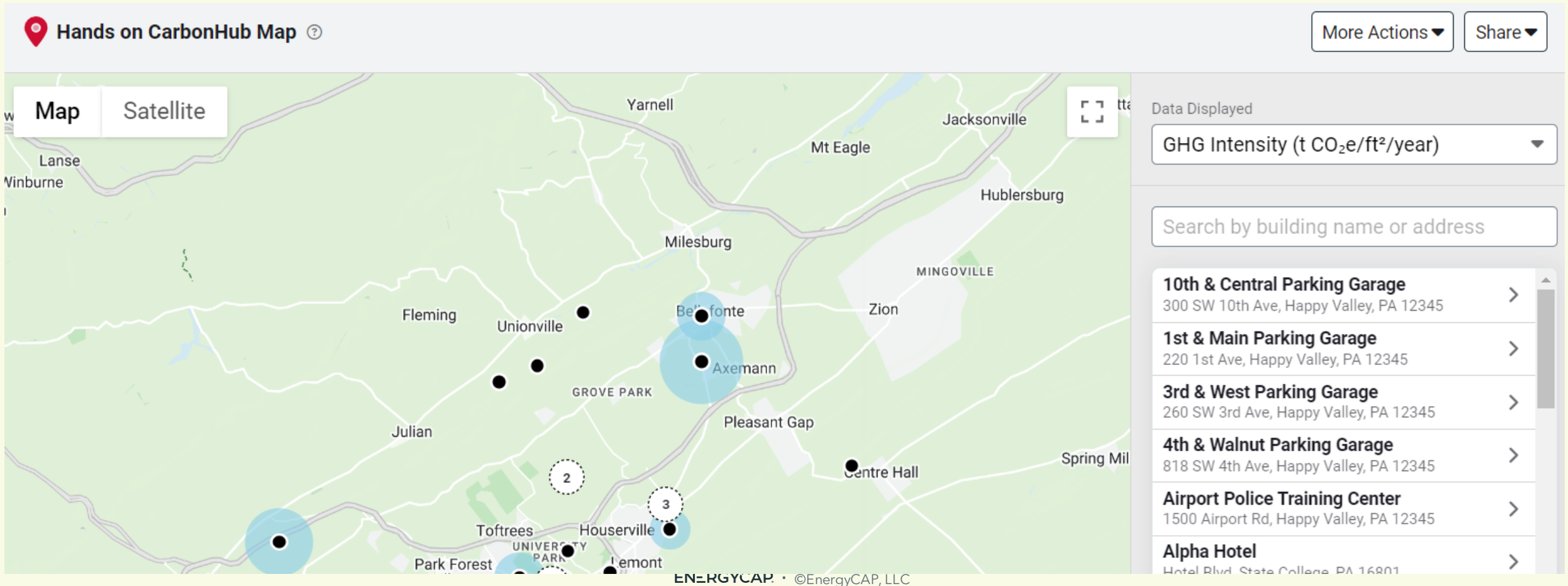
1. GHG Rankings
2. Greenhouse Gas Performance
3. Carbon Footprint
4. Greenhouse Gas KPI

You can combine CarbonHub and UtilityManagement data in a single dashboard

Emissions data in UtilityManagement - Maps

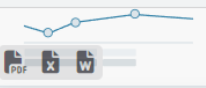
Maps only show data linked to meters that are on buildings

Use GHG Intensity option in the sidebar to see GHG instead of Use or Cost intensity



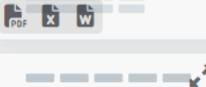
Emissions data in UtilityManagement - Reports


Reports Library



Emissions Summary
Report-44

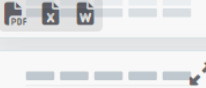
This report is helpful to compare emissions by scope and scope category and includes a table and bar chart with yearly emissions data. You can set filters to limit the report to a subset of data. If the GHG Emissions target comparison is turned on, the report compares your base year to the five most recent years.

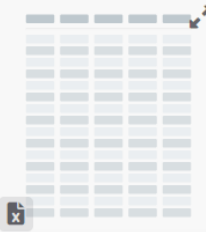




Emissions By Building or Organization
Report-45

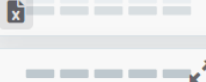
A table to compare total emissions data by floor area for a 12-month period. This report is helpful to determine the carbon footprint at the building level.

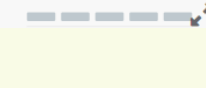




Emissions Details (Excel only)
Report-46

An Excel report with monthly carbon emissions output for a 12-month period. Data can be grouped by meter, building, organization, or scope category. This report is helpful for greenhouse gas reporting to outside organizations like the CDP or EPA.





Bill Calendarization Details

Filters

Object

Output File Type

Topic

Format

Other Attributes

☐ Show Only Reports with Charts

Emissions data in UtilityManagement - Reports

Reports that do not have a collection or emissions source filter, will only show emissions data linked to meters

1. Report-01 Year over Year Comparison
2. Report-45 Emissions by Building or Organization


CarbonHub specific reports will show both linked and unlinked


1. Report-44 - Emissions Summary
2. Report-46 - Emissions Details
3. Report-47 - Bill Calendarization

**Usage based emissions
are cool, but sometimes I
don't have that. Help!**

Going Deeper

1. Cost-based bills creating emissions records
2. Finding the right Factor
 1. Advanced search
 2. Use unit type to your advantage
 3. Tons of options
3. Currency and Unit Conversion

78604 Record ID	Edit	Close
Emissions source  Central Park Mowing		
EUM bill April 2024 ↗	Supplier (vendor) Mondragon Services ↗	
Start date 04/01/2024	End date 04/30/2024	
Scope category Mobile Combustion		
Factor ⓘ Lawn and garden equipment (per USD USEEIO Commodity Code: 333112)		
Cost \$800.00		
Total emissions 0.20 t CO₂e		
CO ₂ (Carbon dioxide) 0.17 t CO ₂ e		
CH ₄ (Methane) 0.02 t CO ₂ e		
Other GHG Gases (CO ₂ e) 0.01 t CO ₂ e		

78605 Record ID	Edit	Close
Emissions source  Hands On International Travel		
EUM bill April 2024 ↗	Supplier (vendor) Delta Airlines ↗	
Start date 04/01/2024	End date 04/02/2024	
Scope category 06. Business Travel		
Factor ⓘ Air transport (per USD USEEIO Commodity Code: 481000)		
Quantity 1,300 £		
Cost ⓘ £1,300.00	Cost - System \$1,634.89	
Total emissions 1.57 t CO₂e		
CO ₂ (Carbon dioxide) 1.43 t CO ₂ e		
CH ₄ (Methane) 0.14 t CO ₂ e		
Other GHG Gases (CO ₂ e) 0.00 t CO ₂ e		

Questions?



CATALYST '24



Session survey