

# Standard Energy Efficiency Data Platform™



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



SEED PLATFORM™ 2.18

Updated  
April 2023

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# Standard Use Cases

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## Use Case to Cover

- **Energy Benchmarking**
  - Commercial Buildings

## Outcomes

- **Annual Disclosure Report**
  - By Tax Parcel ID
- **List of Building Violations**
  - By Tax Parcel ID
- **Annual Report of Building Stock Performance**
  - By energy (Portfolio Manager data)

# Standard Use Cases

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## Tasks to achieve outcomes:

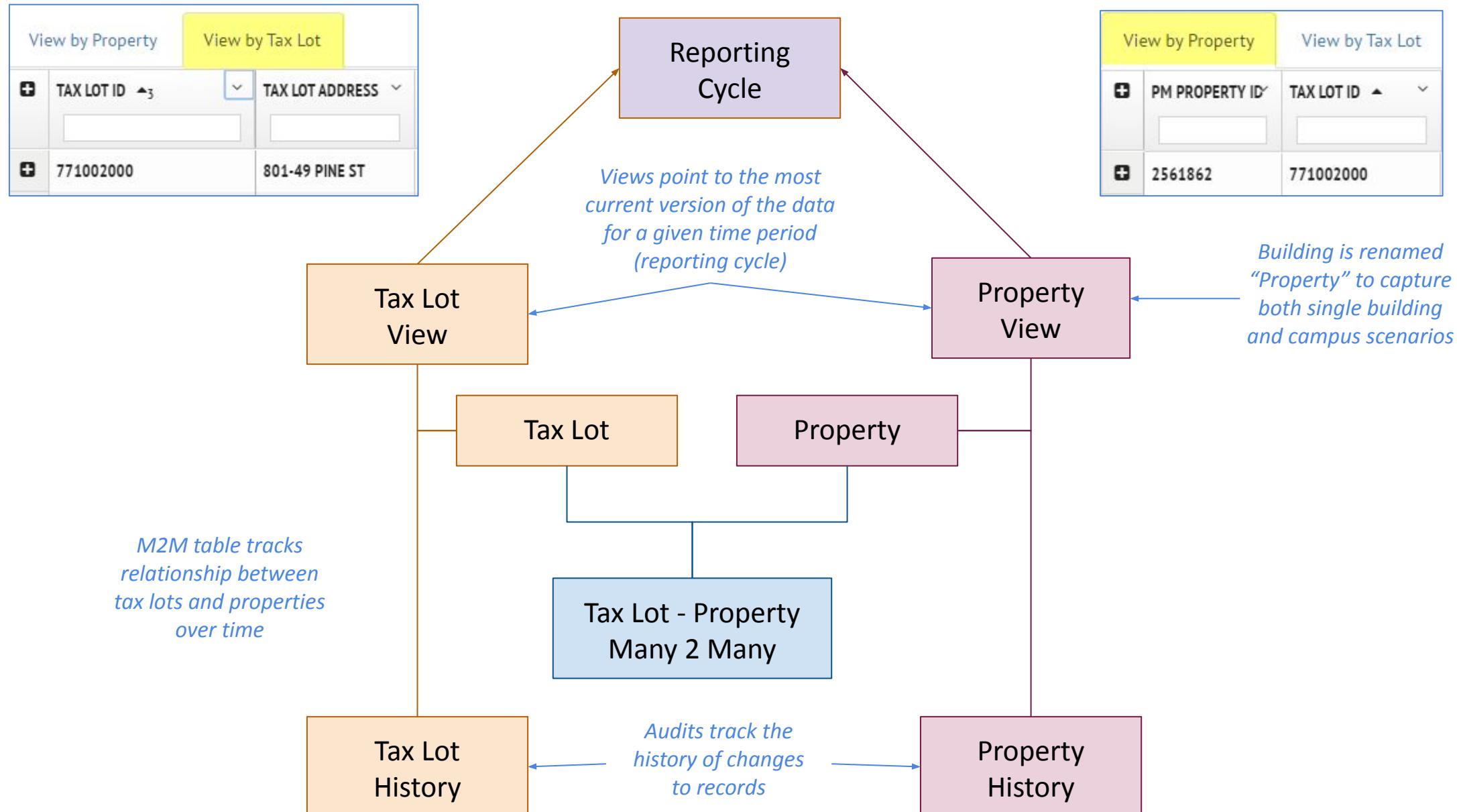
- **Import data from different sources**
  - Tax assessor lists, including GIS information
  - Costar Data
  - Portfolio Manager Data, including meter data
  - GreenButton meter data
- **Match data from different sources**
- **Handle data with different types of relationships**
  - Tax Assessor data defined by Lot/Parcel

VS

- CoStar or Portfolio Manager data defined by buildings
- **Maintain data based on compliance year**

# Data Model Schematic

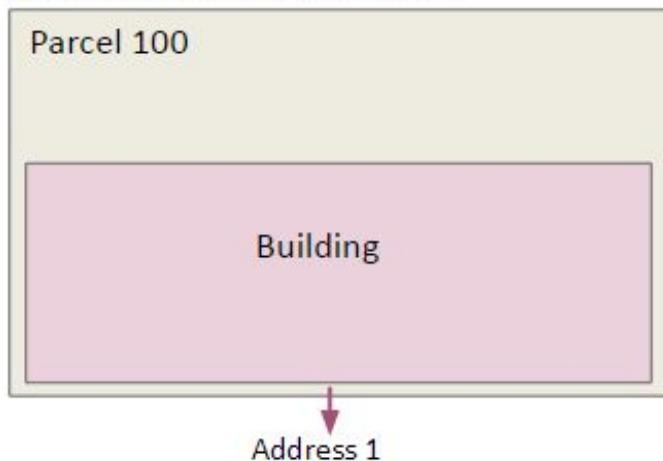
- View different states in time
- Many to many relationship between Tax Lot data and Building/Portfolio Manager data
- Viewing Tax Lot and Property data combined / rolled up



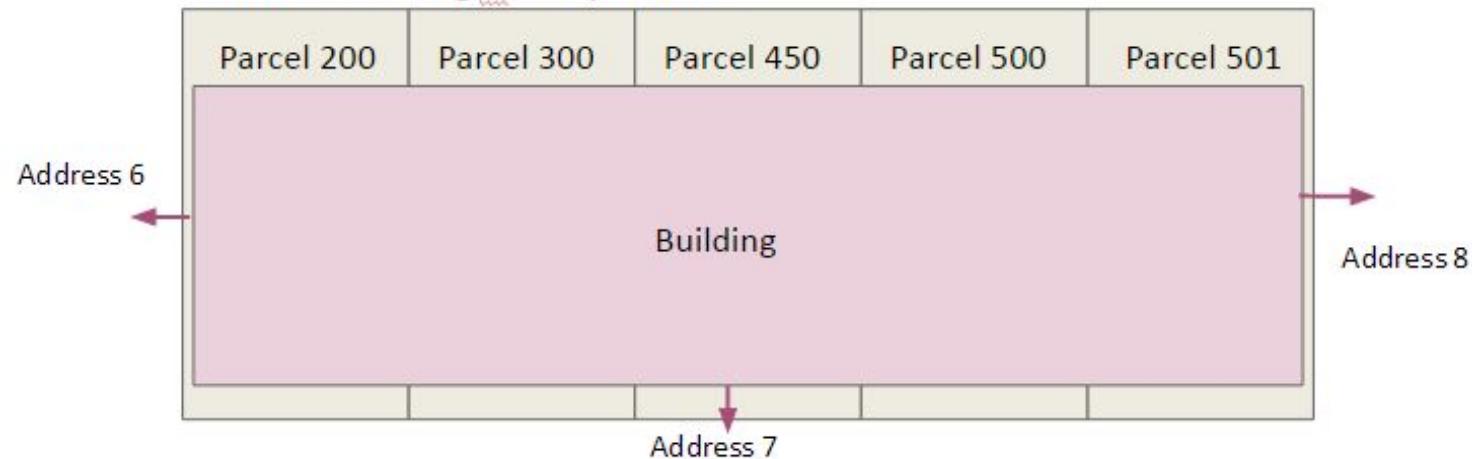
# Physical reality of the data

The relationship of Buildings to Parcels/Tax Lots can be complicated

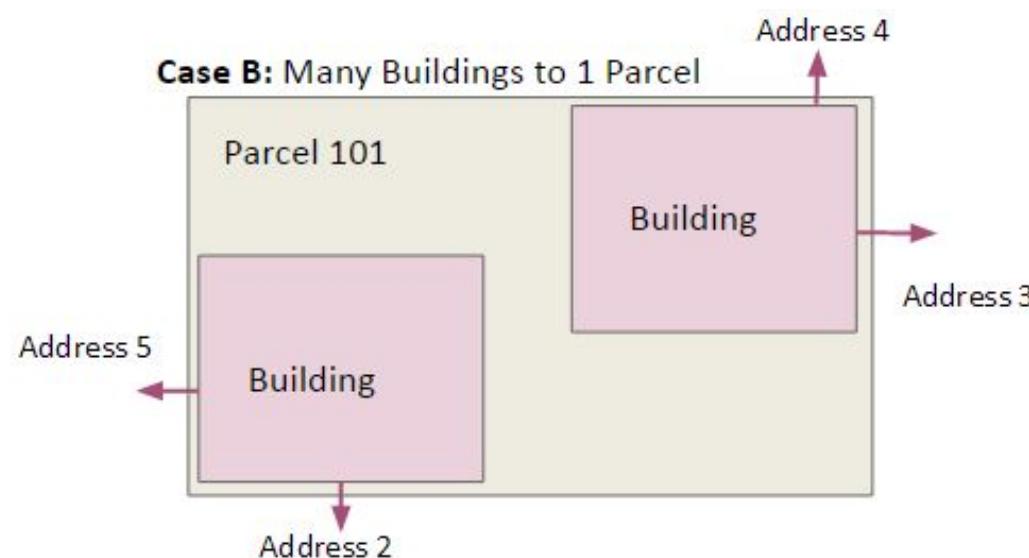
**Case A:** 1 Building to 1 Parcel



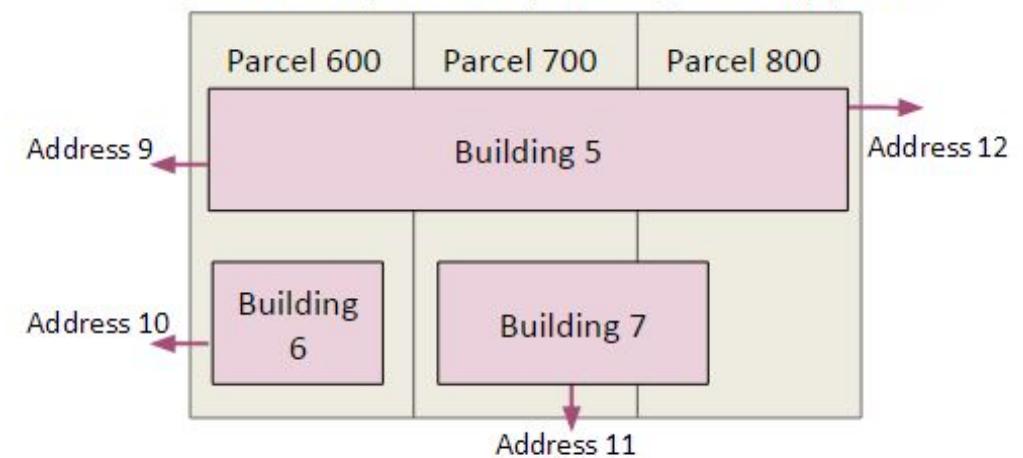
**Case C:** 1 Building to many Parcels



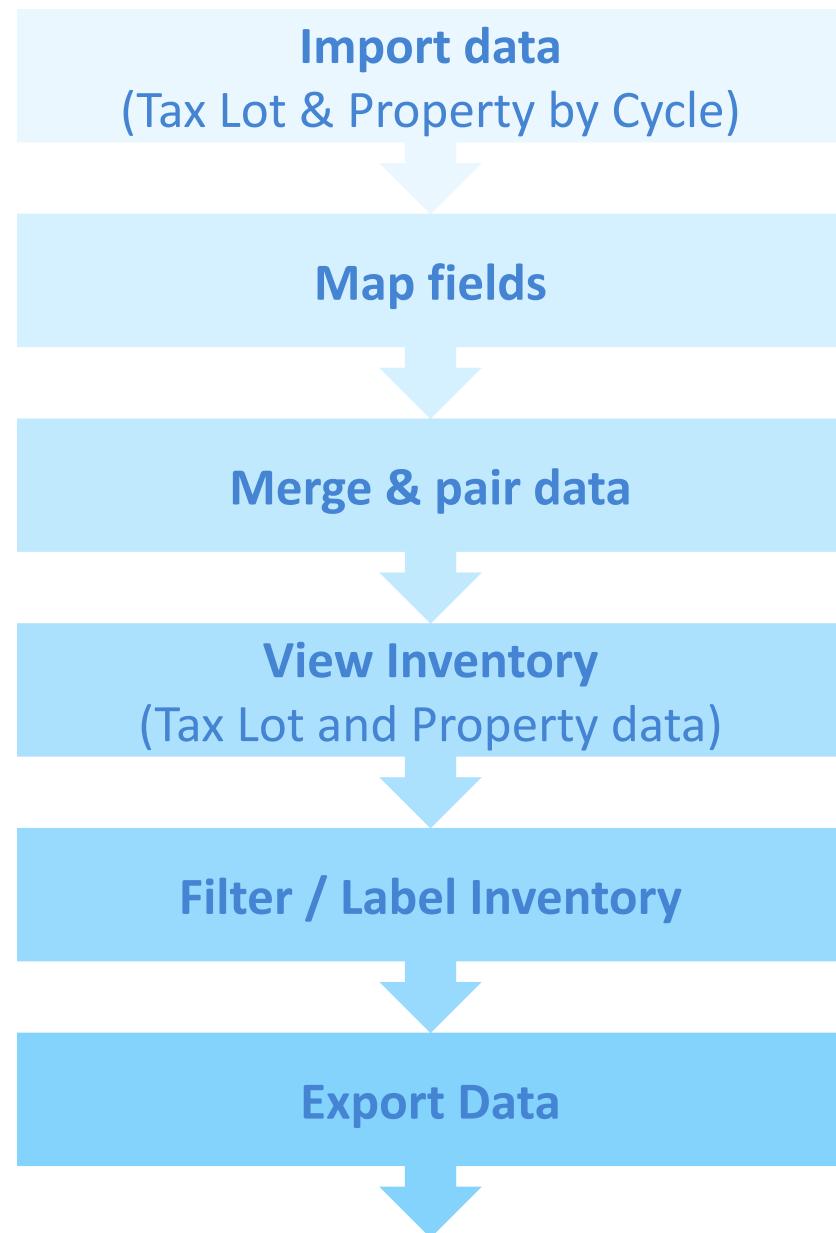
**Case B:** Many Buildings to 1 Parcel



**Case D:** Campus -- many buildings to many parcels



# SEED Workflow



# Home Page

The screenshot shows the SEED Platform™ home page. On the left is a vertical navigation sidebar with icons for Home, Data, Portfolio Manager, Buildings, EPA, Help, and Logout. The main header says "SEED PLATFORM™". A red arrow points from the "Home" icon in the sidebar to the "SEED PLATFORM™" text in the header. In the top right corner, it says "Current Organization: LBNL Test 200" with a dropdown arrow and a "+" sign.

A callout box in the top left of the main content area says: "You can open the Navigation Side Bar to view different program areas".

# The SEED Platform™

The DOE developed the Standard Energy Efficiency Data (SEED) Platform™ as a free software tool that provides a standardized format for collecting, storing and analyzing building energy performance information about large portfolios.

**Upload your data** (Icon: Cloud with arrow): Get started using SEED Platform™ by uploading your buildings list (city tax assessor data) and then your EPA Portfolio Manager data. Make sure these files are each in .csv, .xls, .xlsx, or .xml format. The SEED Platform will help you map and validate your data in the process of loading.

**Match your data** (Icon: Double arrows): Match-up your buildings list with the Portfolio Manager dataset to tie building records together. SEED Platform will help you by auto-matching high confidence pairings and then provide you with tools to match the rest of your dataset.

**Manage compliance** (Icon: Checkmark): Use SEED Platform's flexible, easy-to-use labeling system and inventory groupings to track the status of data submission, review, and compliance.

**Getting Started**

You can download a sample data set (seed-sample-data.zip)

Click this button to download a copy of the guide you are currently viewing (!)

This button opens the dialog box to create a new data set to import data.

This button will populate your organization with the sample data

10

# Navigation

Click to Expand and Contract  
the Navigation Side Bar



SEED PLATFORM™

contracted      expanded

	ROBIN LBNL 200	
	INVENTORY	
	DATA 25	
	ORGANIZATIONS 1	
	INSIGHTS	
	ANALYSES (BETA)	
	API DOCUMENTATION	
	CONTACT	
	ABOUT	
	DOCUMENTATION	
	LOGOUT	

**User Account Name:** Click to view information about the account

**Inventory:** Click to view of the Tax Lot / Parcel and Property / Building data, by Cycle / Time Period

**Data:** Click to import data into SEED that will become records in the Inventory

**Organizations:** Click to view the organizations associated with the user account

**Insights:** Click to view options for viewing aggregated data

**Analyses (BETA):** Click to see the results of Analyses run from Inventory

**API Documentation:** Click to view the Swagger API documentation

**Contact:** Click to view SEED contact info, including a link to user documentation and the User and Developer Forums, and a link to the Github code repository

**About:** Click to view information about SEED development and funding

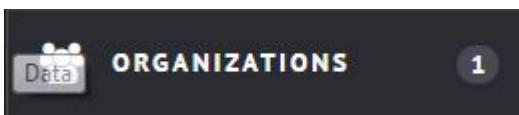
**Documentation:** Click to see an FAQ page

**Log out:** Click to log out of the program

# Create Cycle in Organizations (before uploading data)

At least one cycle must be defined before importing data.

To define a new cycle, go to the Organizations navigation bar to see the organizations that you manage and belong to.



Click on the Organization that you want to make a cycle for

The program will open up a view of that Organization.

SEED PLATFORM™

Current Organization: LBNL 302 +

### Organizations

Organizations I Manage

ORGANIZATION

LBNL 302

Sub-Organizations

Organizations I Belong To

ORGANIZATION NAME	NUMBER OF PROPERTIES	NUMBER OF TAX LOTS	YOUR ROLE	ORGANIZATION OWNER(S)
LBNL 302	2018 Compliance Cycle: 13	2018 Compliance Cycle: 11	owner	Robin LBNL 302

SEED PLATFORM™

Current Organization: LBNL 302 +

Organizations

### LBNL 302

Cycles

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

Members

Reset all passwords – Invite a new member

MEMBER NAME	MEMBER EMAIL	MEMBER ROLE
member name	member email	member role
Robin LBNL 302	rdmitchell+302@lbl.gov	owner

# View, Edit and Create Cycles

SEED PLATFORM™

Current Organization: LBNL 302 ▾



◀ Organizations

LBNL 302

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

Click on **Cycles** link to view the **Cycles** page

To make a new **Cycle**, enter the **Cycle name, From date and To date**, then click **Create Cycle**

◀ Organizations

LBNL 302

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

Create new cycle

Cycle Name

From date:



To date:



Create Cycle

Existing Cycles

NAME	FROM DATE	TO DATE	
2017 Compliance Cycle	01-01-2017	12-31-2017	<button>Edit</button> <button>Delete</button>

There is a default Cycle provided by the program called **2017 Calendar Year**

The new **Cycle** is added to the **Existing Cycles** list

Click **Edit** to change the default **Cycle name** if desired

Existing Cycles

NAME	FROM DATE	TO DATE	
2017 Compliance Cycle	01-01-2017	12-31-2017	<button>Edit</button> <button>Delete</button>
2018 Compliance Cycle	01-01-2017	12-31-2017	<button>Edit</button> <button>Delete</button>

Existing Cycles

NAME	FROM DATE	TO DATE	
2017 Compliance Cycle	01-01-2017	12-31-2017	<button>Edit</button> <button>Delete</button>
2018 Compliance Cycle	01-01-2017	12-31-2017	<button>Edit</button> <button>Delete</button>

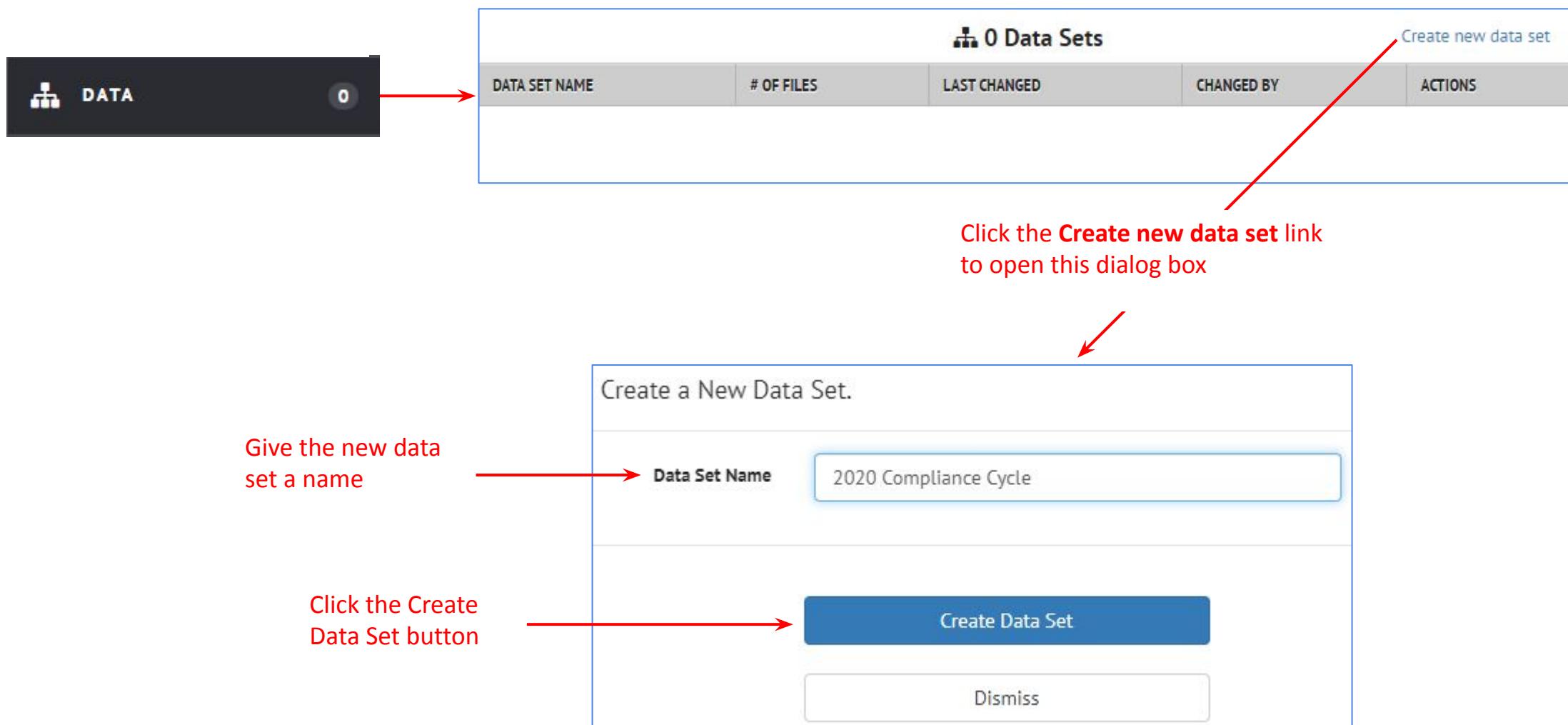
# Uploading Data - There are many ways to start

The screenshot shows the SEED Platform™ homepage. On the left, a dark sidebar lists navigation items: ROBIN LBNL 302, INVENTORY, DATA (with a red notification badge '1'), ORGANIZATIONS, INSIGHTS, ANALYSES (BETA), API DOCUMENTATION, CONTACT, ABOUT, DOCUMENTATION, and LOGOUT. The main content area features a large title 'The SEED Platform™' over a city skyline background. A callout box points to the 'DATA' button in the sidebar with the text: 'Click the Data navigation button to see existing Data Sets or create a new one'. Below this, a text block explains the process of loading data from various sources like city tax assessor data and EPA Portfolio Manager data into the SEED Platform. To the right, there are three main sections: 'Match your data' (describing how the platform helps in auto-matching datasets), 'Manage compliance' (describing tracking data submission status), and a 'Getting Started' section at the bottom with four buttons: 'Getting Started Guide' (orange), 'Download Sample Data' (blue), 'Upload your Buildings List' (blue, with a red arrow pointing up to it), and 'Auto-Populate Sample Data' (green).

OR  
click the blue button labeled “Upload your buildings list”

# Create a New Data Set

Clicking the Data Navigation option will open the Data Sets view, to display existing Data Sets and create new Data Sets



# Add a file to the data set

Select the data file type, either

## Upload a Spreadsheet

(CSV, XLS, XLSX)

to import

- Tax / Parcel lists
- Building lists
- Portfolio Manager downloaded spreadsheets

## Upload GeoJSON file

- This option allows importing a GeoJSON file

## Upload BuildingSync Data

- This option allows importing a BuildingSync (XML format) file, such as produced by Asset Score.

## Import Portfolio Manager Data

- Log in to your Portfolio Manager account and import the custom report template directly into SEED

Uploading your data.

<a href="#">Property and Tax Lot Data</a>	<a href="#">Meter Data</a>
<b>Cycle</b>	<b>2020 Compliance Cycle</b>
	<a href="#">Manage available cycles.</a>
<b>File types supported:</b> .csv, .xls, .xlsx, .xml, .zip, .geojson, and .json.	<a href="#">Upload a Spreadsheet</a>
<b>Note:</b> only the first sheet of multi-sheet Excel files will be imported.	<a href="#">Upload a GeoJSON File</a>
	<a href="#">Upload BuildingSync Data</a>
	<a href="#">Import Portfolio Manager Data</a>

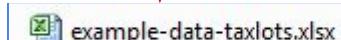
2018 Compliance Cycle
2018 Compliance Cycle
2019 Compliance Cycle
<b>2020 Compliance Cycle</b>

Select a **Cycle** (time period) to associate with the data (except Meter data, which is not associated with Cycles)

Click “**Manage available cycles**” to go to the Cycle definition page

A browser window will open to select a file to upload

In this example, a **Tax Lot / Parcel** data file is uploaded



To upload monthly meter data, click on the Meter Data tab

Uploading your data.

<a href="#">Property and Tax Lot Data</a>	<a href="#">Meter Data</a>
<b>File types supported:</b> .csv, .xls, .xlsx, .xml, .zip, .geojson, and .json.	<a href="#">Upload Portfolio Manager Meter Usage</a>
<b>Note:</b> only the first sheet of multi-sheet Excel files will be imported.	

## Upload Portfolio Manager Meter Usage (XLXS)

- From Portfolio Manager monthly data spreadsheet

# Upload Data

During the data upload, SEED reports the progress and the success of the upload

Uploading your data.

Property and Tax Lot Data      Meter Data

Uploading 1 - example-data-ESPM.xlsx to cycle 2020 Compliance Cycle

0% Complete

Dismiss

Successful upload!

1 - example-data-ESPM.xlsx has been uploaded to 2020 Compliance Cycle, under cycle 2020 Compliance Cycle.

Continue to data mapping

Dismiss

When the data upload is complete, click the “Continue to data mapping” button

After you click the “Continue to data mapping” button, you may see a spinning circle if the data file is large

# Mapping Fields

## Matching Fields:

SEED matches records between files (such as Tax Lot and Building lists and ENERGY STAR Portfolio Manager data) based on the matching fields so it is **very important** to map your data's fields to at least one of these SEED fields.

**Pick a field that is common between the files you plan to merge and pair to each other**

Directions for mapping data are at the top of the Mapping page in the STEP 1 tab.

The screenshot shows the 'Data Mapping and Validation' page with the 'STEP 1: Map Your Data' tab selected. The page contains sections for mapping data to SEED, specifying matching fields for Property and Tax Lot data, and defining geocoding properties. Red annotations highlight specific sections and include explanatory text and arrows pointing to the annotated areas.

**MAPPING YOUR DATA TO SEED**

It is necessary to map your field names to SEED field names. You can select from the list that appears as you start to type, which is based on the Building Energy Data Exchange Specification (BEDES), or you can type in your own name, as well as typing in the field name from the original datafile.

In addition, you need to specify where the field should be associated with Tax Lot data or Property data. This will affect how the data is matched and merged, as well as how it is displayed in the Inventory view.

Column Mapping Profiles can be used to help you easily and consistently map your data. Note that file header columns defined in the profile must match exactly (spaces, lowercase, uppercase, etc.) in order for the corresponding SEED column information to be used.

**Field names for matching Properties:** Custom ID 1, PM Property ID

**Field names for matching Tax Lots:** Jurisdiction Tax Lot ID

If there are fields in the datafile mapped to these names, the program will attempt to match on the corresponding values in existing records. All of these fields must have the same values between records for the records to match.

Matches within the same cycle will be merged together, while matches in different cycles will be associated for cross-cycle analysis.

**Field names for geocoding properties:** Address Line 1, Address Line 2, City, State, Postal Code

**Field names for geocoding tax lots:** Address Line 1, Address Line 2, City, State, Postal Code

Datafile fields mapped to these columns will have their corresponding values concatenated in the order listed to form a full address. This full address is made for each record and used for geocoding. **Note, geocoding requires at least 1 column is used and populated to construct full addresses.**

When you click the **Map Your Data** button, the program will show a grid with the new field names as the column headings and your data in the rows. In that view, you can still come back to the initial mapping screen and change the field mapping.

The **Collapse Tabs** option is useful if you already know all the matching rules and need more room to view the mapped fields

**Duplicate** -- if fields are marked as duplicates they need to be resolved to have different names.

The Matching fields for Property and Tax Lot data are specified in Organizations/Column Settings and are displayed here.

In this case, for **Property** data there are 2 matching fields:

- **Custom ID 1: Jurisdiction ID**
- **PM Property ID: ID from ENERGY STAR Portfolio Manager**

In this case, for **Tax Lot** data there is one matching field:

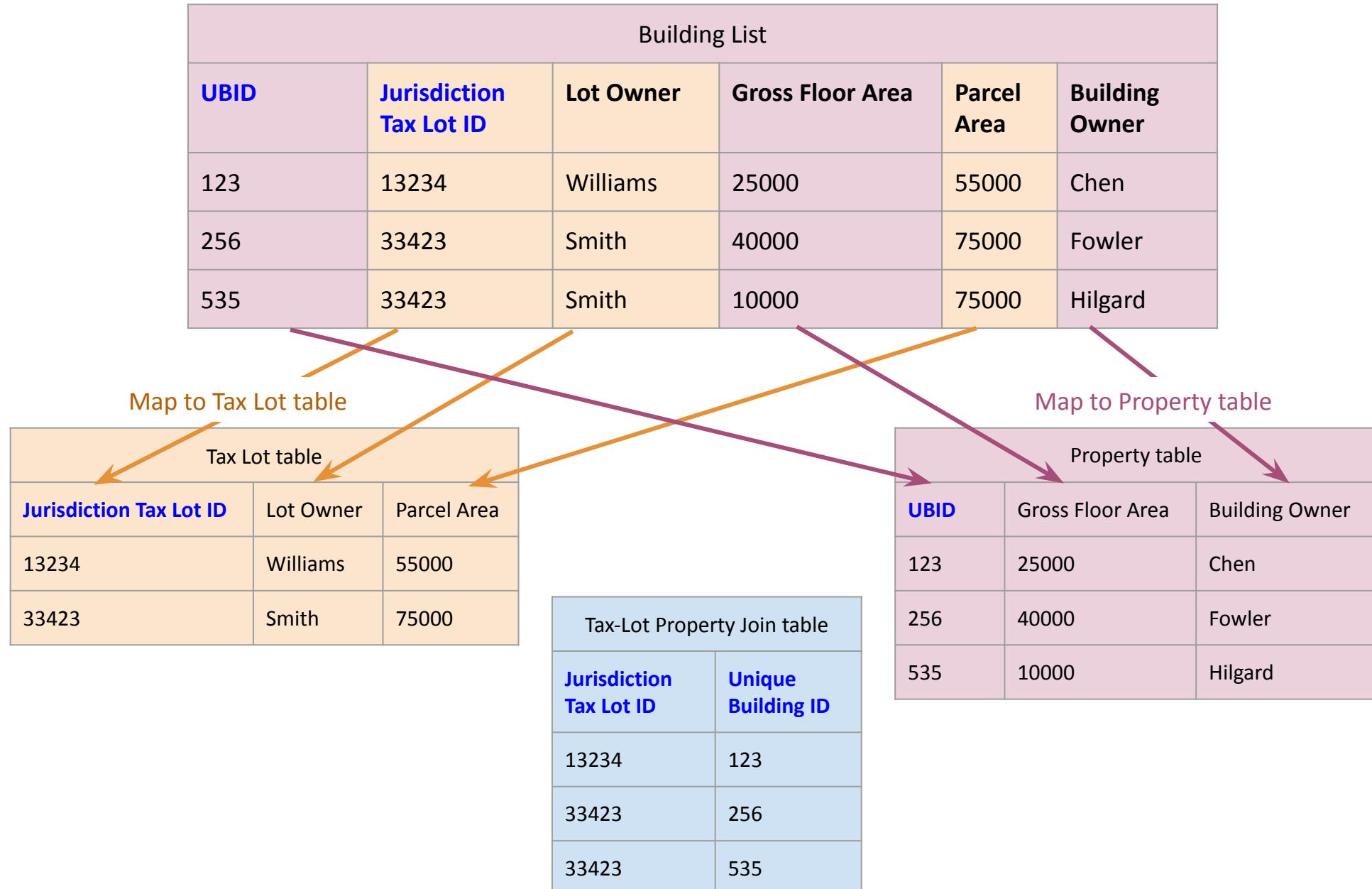
- **Jurisdiction Tax Lot ID: Tax Assessor's Tax Parcel ID**

The fields for geocoding properties, defined in **Organizations / Column Settings**, are also displayed here

# Mapping Fields

The fields in a data file can be mapped

- All to the same table (either Tax Lot or Property)
- To different tables
  - In the example below, mapping to both tables defines the relationship between the Property and the Tax Lot data with **matching fields**.



# Mapping Fields

You can click on this button to map all the SEED fields to the fields in the imported file and then change them as needed →

This data is all from ENERGY STAR Portfolio Manager, so all the fields are mapped to the **Property** table

Check this box to omit (not import) a field

Start typing in the SEED field input to see a list of fields containing that word

The Property ID from Portfolio Manager field was mapped to **the reserved Matching field name** to specify the fields the program will use to match records in files

- Property ID ⇒ PM Property ID

When the SEED Header fields are properly defined, you can make a “Column Mapping Profile” to save those settings by clicking the blue pencil icon.

You will give it a name, and then it will appear in the pull down list for future use

1 - example-data-ESPM.xlsx				
SEED				
IS OMITTED	MAPPED FIELDS	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER
<input type="checkbox"/>	<input type="button" value="Property"/>	PM Property ID		Property ID
<input type="checkbox"/>	<input type="button" value="Property"/>	PM Parent Property ID		Parent Property ID
	<input type="button" value="Property"/>	Property Name		Property Name
	<input type="button" value="Property"/>	Address 1		Address 1
	<input type="button" value="Property"/>	City		City
	<input type="button" value="Property"/>	Custom ID 1		Rust Parcel ID
	<input type="button" value="Property"/>	Property Type		Property Type
	<input type="button" value="Property"/>	Gross Floor Area	square feet	Gross Floor Area

Map the field names in the **imported file** to standardized field names in the **SEED database**

**Matching**  
In this case, the program will match two records if the data in both **PM Property ID** and **Custom ID 1** fields are the same between them

# Mapping Fields

Mapping buildings for 1 - example-data-ESPM.xlsx

0% Complete

Click Map Your Data when all the fields are mapped as desired

Map Your Data

Copy Data File Headers directly to SEED Headers

Current Cycle: 2020 Compliance Cycle Current Column Mapping Profile: 2020 ESPM Defaults 2020 ESPM Defaults Apply Profile

SEED 1 - example-data-ESPM.xlsx

Set all fields to: Property Mapped Fields

IS OMITTED	INVENTORY TYPE	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER	RO
<input type="checkbox"/>	Property	PM Property ID		Property ID	22
<input type="checkbox"/>	Property	PM Parent Property ID		Parent Property ID	
<input type="checkbox"/>	Property	Property Name		Property Name	Un
<input type="checkbox"/>	Property	Address 1		Address 1	50
<input type="checkbox"/>	Property	City		City	Ru
<input type="checkbox"/>	Property	Custom ID 1		Rust Parcel ID	15
<input type="checkbox"/>	Property	Property Type		Property Type	Ho
<input type="checkbox"/>	Property	Gross Floor Area	square feet	Gross Floor Area	12

# Field Mapping Review

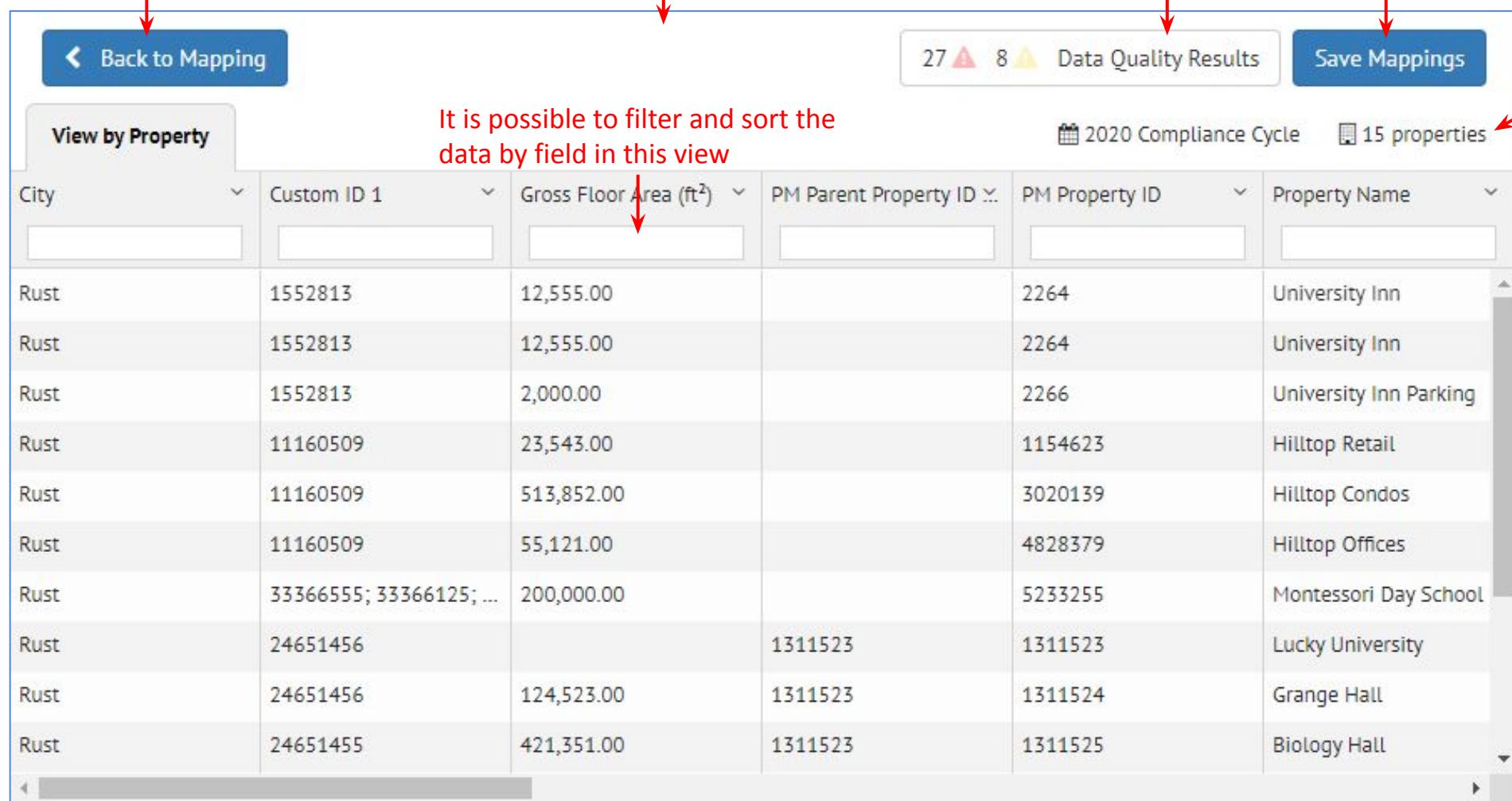
[Map Your Data](#)

View the mapped fields populated with the data

Click **Save Mappings**  
if the mapping is correct

You can click  
**Back to Mapping** if it is not correct

Click **Data Quality Results** to see data  
errors (see next page)



The screenshot shows a data review interface with the following components:

- Top Bar:** Contains a "Map Your Data" button, a red "0" icon, and a "Field Mapping Review" title.
- Left Sidebar:** A blue box labeled "Map Your Data".
- Central Grid:** A table with columns: City, Custom ID 1, Gross Floor Area (ft<sup>2</sup>), PM Parent Property ID, PM Property ID, and Property Name. The "Gross Floor Area (ft<sup>2</sup>)" column has a red arrow pointing to it.
- Header Buttons:** "Back to Mapping" (blue), "View by Property" (button), "Data Quality Results" (button with 27 errors and 8 warnings), and "Save Mappings" (blue).
- Header Metrics:** "2020 Compliance Cycle" and "15 properties". A red arrow points to the "properties" count.
- Text Annotations:** "It is possible to filter and sort the data by field in this view" is written in red above the grid. "SEED displays the number of records" is written in red to the right of the metrics.

**Data Grid Rows:**

City	Custom ID 1	Gross Floor Area (ft <sup>2</sup> )	PM Parent Property ID	PM Property ID	Property Name
Rust	1552813	12,555.00		2264	University Inn
Rust	1552813	12,555.00		2264	University Inn
Rust	1552813	2,000.00		2266	University Inn Parking
Rust	11160509	23,543.00		1154623	Hilltop Retail
Rust	11160509	513,852.00		3020139	Hilltop Condos
Rust	11160509	55,121.00		4828379	Hilltop Offices
Rust	33366555; 33366125; ...	200,000.00		5233255	Montessori Day School
Rust	24651456		1311523	1311523	Lucky University
Rust	24651456	124,523.00	1311523	1311524	Grange Hall
Rust	24651455	421,351.00	1311523	1311525	Biology Hall

# Mapping – Review – Data Quality Results

From the **Data Mapping Review** screen, click **Data Quality Results** to see what the program discovered about the data



27 8 Data Quality Results



Data Quality Results

File Name:

1 - example-data-ESPM.xlsx

Date Uploaded:

April 28th 2023, 1:57:37 PM -07:00

PM PROPERTY ID	CUSTOM ID	FIELD	APPLIED LABEL	ERROR MESSAGE
PM Property ID	Custom ID	Field	Applied Label	Error Message
2264	1552813	Alert - Individual monthly meter entry is more than 65 days long	--	Alert - Individual monthly meter entry is more than 65 days long [Possible Issue] does not co
2264	1552813	ENERGY STAR Score	--	ENERGY STAR Score is null
2264	1552813	Gross Floor Area	--	Gross Floor Area [12555.0 ft <sup>2</sup> ] < 50000.0 ft <sup>2</sup>
2264	1552813	Site EUI	--	Site EUI [3.0] < 10.0
2264	1552813	ENERGY STAR Score	--	ENERGY STAR Score is null
2264	1552813	Gross Floor Area	--	Gross Floor Area [12555.0 ft <sup>2</sup> ] < 50000.0 ft <sup>2</sup>
2266	1552813	Alert - Individual monthly meter entry is more than 65 days long	--	Alert - Individual monthly meter entry is more than 65 days long [Possible Issue] does not co
2266	1552813	ENERGY STAR Score	--	ENERGY STAR Score is null
2266	1552813	Gross Floor Area	--	Gross Floor Area [2000.0 ft <sup>2</sup> ] < 50000.0 ft <sup>2</sup>
2266	1552813	Site EUI	--	Site EUI is null

Click **Export** to export the contents of the Data Cleansing screen to a CSV file

Export

Close

Click **Close** to return to the **Data Mapping Screen**

Data Cleansing Results.csv

# Mapping – Confirm and Start Matching

Save Mappings

Confirm Save Mappings?

Did you review your mappings? It's a good idea to double check your mappings. Once SEED matches your properties and tax lots you cannot undo or edit these mappings.

Confirm mappings & start matching

Dismiss

You have one more chance to review the mapping

Click **Confirm mappings and start matching** if you are happy with the data mapping

SEED will check to see if any records match within the file (or across other files if they have already been imported)

Finding inventory matches.

Finding inventory matches for 1 - example-data-ESPM.xlsx

60% Complete : Matching data

⌚ SEED is still working. Please do not refresh or leave this page. (Last updated at 03:16 PM)

Sub Progress:

12% Complete : Matching Data (6/6): Merging Views

Program checks to see if any records match within the file based on the matching fields set in Mapping, in this case PM Property ID and Custom ID 1.

The program checks for matching even if there is no data already loaded into the program to match to, in case there are matches within the file being imported

# Matching - View Results / Add a File

Upload Complete - 1 - example-data-ESPM.xlsx

- Current cycle: 2020 Compliance Cycle
- Total rows in the import file: 15
- New properties: 14
- Merged properties within import file: 1

Geocoding Results for Properties

- Unsuccessful using external service: 14

Would you like to add another file?

**Add another file**

**View my properties**

Dismiss

Click **View my properties** to see the Inventory list

The program reports on what was done with the records. In this case, the program imported 15 records and created 14 new records in the Property (two rows in the import were merged) table from those imported records

Click **Add another file** to upload another data file, such as ENERGY STAR Portfolio Manager data, which allows you to add more data to match to the records that were just created

Uploading your data.

Property and Tax Lot Data      Meter Data

Cycle: 2020 Compliance Cycle

File types supported: .csv, .xls, .xlsx, .xml, .zip, .geojson, and .json.

Note: only the first sheet of multi-sheet Excel files will be imported.

**Upload a Spreadsheet**

**Upload a GeoJSON File**

**Upload BuildingSync Data**

**Import Portfolio Manager Data**

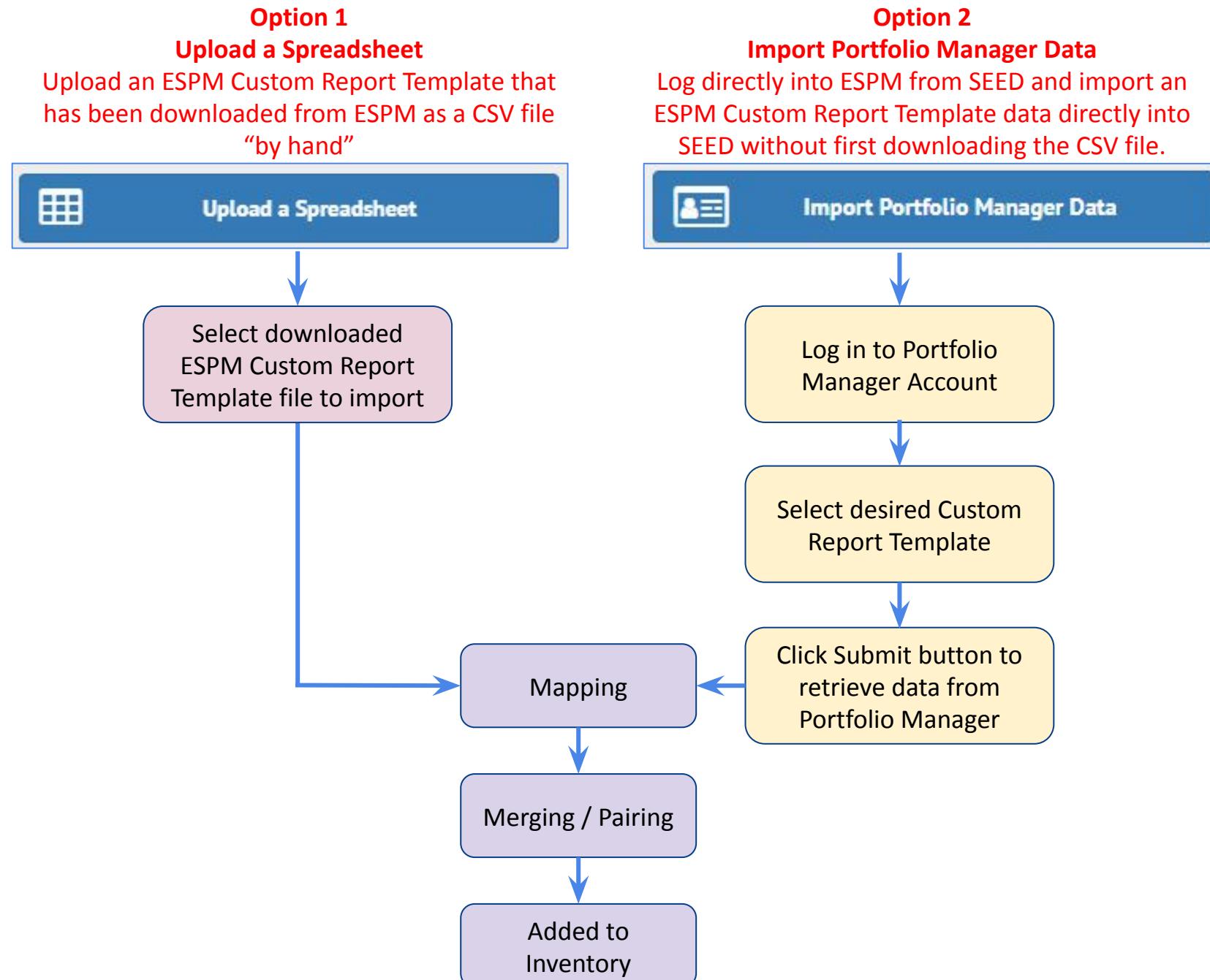
View by Property		View by Tax Lot					
+	✓	Custom ID 1	PM Property ID	Property Type	Property Name	1-14	< >
+	✓	1552813	2266	Hotel	University Inn Parking		
+	✓	24651456	1311526	Fitness Center/Health ...	Rowling Gym		
+	✓	13334485;23810533	1311527	College/University	East Computing Hall		
+	✓	13334485;23810533	1311528	Residence	International House		

After a data file has been mapped and matched, the records can be viewed in the Inventory list view.

In this example, **Property** data was imported, so the data can be viewed in the **View by Property** tab, for the appropriate **Cycle**

# ENERGY STAR Portfolio Manager (ESPM) Data

## Two paths for obtaining ENERGY STAR Portfolio Manager (ESPM) data



# ESPM Option 1: Upload Data from ESPM CSV files

This example shows how to upload Portfolio manager data from Custom Report Template files that have been downloaded from Portfolio Manager

Uploading your data.

Property and Tax Lot Data      Meter Data

Cycle: 2018 Compliance Cycle  
Manage available cycles.

File types supported: .csv, .xls, .xlsx, .xml, .zip, .geojson, and .json.

Note: only the first sheet of multi-sheet Excel files will be imported.

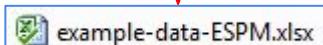
**Upload a Spreadsheet**

**Upload a GeoJSON File**

**Upload BuildingSync Data**

**Import Portfolio Manager Data**

Browse to the appropriate file to upload to SEED



Upload your data.

Uploading example-data-properties.xlsx

45% saving data

Select the appropriate Cycle

Click the **Upload a Spreadsheet** button to upload an ESPM Custom Report Template that has been exported from ESPM

Successful upload!

example-data-taxlots.xlsx has been uploaded to **2018 Benchmarking Compliance**, under cycle **2018 Compliance Cycle**.

**Continue to data mapping**

Dismiss

Click  
**Continue to data mapping**  
(See Mapping Portfolio Manager Data)

# ESPM Option 2: Import Data Directly from ESPM

This example shows how to import Portfolio manager data from Custom Report Template directly by logging into a Portfolio Manager account from SEED

**1 - Select the appropriate Cycle**

Upload your data.

Time Period  Manage available cycles.

**2 - Click the Upload Portfolio Manager Data button** to upload an ESPM Custom Report Template that has been exported from ESPM as a CSV file

**3 - Enter Portfolio Manager Username and Password**

Portfolio Manager Username

Portfolio Manager Password

Report Template Name

**4 - Click Get Report Templates button**

Portfolio Manager Username

Portfolio Manager Password

Report Template Name (14)

Data Request:Abc  
Data Request:Abc  
Data Request:SEED City Test Report June 5 2018  
Data Request:opentech  
Portfolio Plus Meters  
Report with Meters  
SEED City Benchmarking Report  
**SEED City Test Report**  
- Data Request:SEED City Test Report April 24 2018  
- Data Request:SEED City Test Report June 5 2018  
- Data Request:SEED City Test Report April 24 - Test 2

Portfolio Manager Username

Portfolio Manager Password

Report Template Name (14)

**5 - Select the desired Report Template**

**6 - Click Submit to continue to data Mapping**

# Mapping Portfolio Manager Data

## SEED field mapping for a Portfolio Manager file

Map all the fields to the Property Table except if there is a Tax Lot / Parcel ID -- map that to the Tax Lot table

### UBID

- **Matching field - Property table**
- Use for a Unique Building ID, if that field is in the ESPM data

### PM Property ID

- **Matching field - Property table**
- Map to Property ID in PM file

### PM Parent Property ID

- Map to Parent Property ID in PM file to define the campus relationship

### Address Line 1

- **Matching field - Property table**
  - If you want to match on Address, map to Address Line 1.
  - If you don't want to match on Address, use the ESPM field name of "Address 1"

### Jurisdiction Tax Lot ID

- **Matching Field - Tax Lot table**
- If there is a Tax Lot ID field in the Portfolio Manager data that can be used to set up the relationship between Tax Lot and Property, map it to Jurisdiction Tax Lot ID
- Set the field to the **Tax Lot** table

SEED		1 - example-data-ESPM-UBID-NoAlerts.xlsx		
INVENTORY TYPE	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER	ROW 1
Property ▼	Building ID		Building ID	100
Property ▼	UBID		UBID	SRIY2TX6+2NR-SRIY2TX6+DS6-SRIY2TX6+F5Q
Property ▼	PM Property ID		Property ID	2264
Property ▼	PM Parent Property ID		Parent Property ID	
Property ▼	Property Name		Property Name	University Inn
Property ▼	Address 1		Address 1	50 Willow Ave SE
Property ▼	City		City	Rust
Tax Lot ▼	Jurisdiction Tax Lot ID		Rust Parcel ID	1552813
Property ▼	Property Type		Property Type	Hotel
Property ▼	Gross Floor Area	square feet ▼	Gross Floor Area	12555

### Gross Floor Area

- **Matching field - Property table**
- If you are mapping to a field called "**Gross Floor Area**" make sure to set the "**Measurement Units**". If this field is left blank, there will be problems later with the data.

# Mapping Review - Portfolio Manager

[Back to Mapping](#)

The fields mapped to **Property** are shown under the **Property** tab

Click **Data Quality results** button to view the errors or warnings.

42 Data Quality Results

[Save Mappings](#)

View by Property							
City	ENERGY STAR Score	PM Generation Date	Gross Floor Area (ft <sup>2</sup> )	PM Parent Property ID	PM Property ID	Property Name	Property Type
Rust	75	2015-06-25 12:00 AM	12,555.00		2264	University Inn	Hotel
Rust		2015-06-25 12:00 AM	2,000.00		2266	University Inn Parking	Hotel
Rust	63	2015-03-02 12:00 AM	23,543.00		1154623	Hilltop Retail	Retail
Rust	1	2015-03-09 12:00 AM	513,852.00		3020139	Hilltop Condos	Multifamily Housing
Rust		2015-03-10 12:00 AM	55,121.00		4828379	Hilltop Offices	Office
Rust	55	2015-03-11 12:00 AM	200,000.00		5233255	Montessori Day School	K-12 School
Rust		2015-03-03 12:00 AM		1311523	1311523	Lucky University	College/University
Rust	77	2015-03-04 12:00 AM	124,523.00	1311523	1311524	Grange Hall	Performing Arts
Rust	43	2015-03-05 12:00 AM	421,351.00	1311523	1311525	Biology Hall	Laboratory
Rust	59	2015-03-06 12:00 AM	1,234.00	1311523	1311526	Rowling Gym	Fitness Center/Health .

[View by Tax Lot](#)

The fields mapped to **Tax Lot** are shown under the **Tax Lot** tab

2018 Compliance Cycle 16 tax lots

Jurisdiction Tax Lot ID

1552813

1552813

11160509

11160509

11160509

In this case only one field, Jurisdiction Tax Lot ID, was mapped to the Tax Lot table in the Mapping

In the final Tax Lot table, this Tax Lot ID will be one record and there will be 3 property records associated with it.

# Confirm Mapping and Start Matching

Confirm Save Mappings?

Did you review your mappings? It's a good idea to double check your mappings. Once SEED matches your properties and tax lots you cannot undo or edit these mappings.

You have one more chance to review the mapping →

**Confirm mappings & start matching**

Dismiss

Click **Confirm mappings and start matching** if you are happy with the data mapping

SEED will check to see if any records match (based on the Matching fields defined in Mapping) within the file (or across other files if they have already been imported)

Program checks to see if any records match within the file (such as Address Line 1 or Tax Lot ID)

In this example, using the Sample data, the **matching field** that is common between the two data files, Tax Lot data and the Portfolio Manager data is **Address Line 1**.

Finding inventory matches.

Finding inventory matches for 1 - example-data-ESPM-UBID-NoAlerts.xlsx

50% Complete : Matching data

Sub Progress:

75% Complete : Matching Data (1/6): Filtering Duplicate States

Matching Results for file 1 - example-data-ESPM-UBID-NoAlerts.xlsx

- Current cycle: 2018 Compliance Cycle
- Total rows in the import file: 14
- New properties: 1
- Merged properties against existing records: 13
- Merged tax lots against existing records: 9
- Ignored tax lot duplicates within the import file: 7

The program reports the results of the matching.

Add another file takes you back to the **Upload Your Data** dialog box.

View my properties takes you **Inventory List view**

**Add another file**

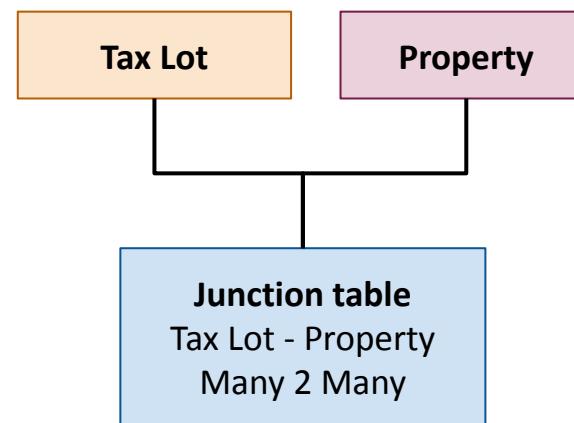
**View my properties**

Dismiss

# Hand Pairing Tax Lot and Property records

## Pairing records between Tax Lot and Property tables

- Records are “paired” between Tax Lot and Property tables in the Junction table based on matching fields



Viewing and changing the data pairing is in the Data Import view

A screenshot of a web-based application interface titled "2018 Compliance Year (2017 Data)". The page shows a table with the following columns: DATA FILES, DATE IMPORTED, # OF RECORDS, CYCLE, DATA MAPPING, and DATA PAIRING. A red arrow points from the text above to the "DATA PAIRING" button in the last column of the table row.

DATA FILES	DATE IMPORTED	# OF RECORDS	CYCLE	DATA MAPPING	DATA PAIRING
example-building-List.xlsx	02/02/2018 04:38:06 PM	11	2018 Compliance Year (2017 Data)	<a href="#">Data Mapping</a>	<a href="#">Data Pairing</a>

# Hand Pairing Tax Lot and Property records

In the Data Sets view, for any imported file, click the Data Pairing button to view the automatic pairing or changing the pairing (pair or unpair records) by hand

**Data Pairing**

Select the Cycle for the desired data

View options

- Show All
- Show Paired
- Show Unpaired

Select table to view on the left hand side; the other table will display on the right hand side

**Property**

ADDRESS LINE 1 (PROPERTY)	PM PROPERTY ID	PAIRED
20 Tenth Street	1311525	1
2660 Welstone Ave NE	4828379	1
521 Elm Street	5233255	3
295444 Moser Lane	6798444	
2700 Welstone Ave NE	1154623	1
93029 Wellington Blvd	1311527	2
93031 Wellington Blvd	1311528	2
12 Ninth Street	1311524	
35 Tenth Street	1311526	1
11 Ninth Street	1311523	1
50 Willow Ave SE	2264	1
295302 Moser Lane	6798215	
2655 Welstone Ave NE	3020139	1

Showing 13 Properties (3 unpaired)

**Tax Lot**

ADDRESS LINE 1 (TAX LOT)	JURISDICTION TAX LOT ID
11 Ninth Street	24651456
35 Tenth Street	1311526
11 Ninth Street	1311523
530 Elm Street	33366148
521 Elm Street	5233255
94000 Wellington Blvd	23810533
93029 Wellington Blvd	1311527
93031 Wellington Blvd	1311528
521 Elm Street	33366555
521 Elm Street	5233255
525 Elm Street	33366125
521 Elm Street	5233255
050 Willow Ave SE	1552813
50 Willow Ave SE	2264
93029 Wellington Blvd	13334485
93029 Wellington Blvd	1311527
93031 Wellington Blvd	1311528
39929 Ranch 99 Road	55039309

Drag Property here to pair with this Tax Lot

Unpaired property records

Unpaired Tax Lot record

Tax Lot record

Property records paired to the Tax Lot record

Click Pairing Settings to select the fields to display for both tables

Uncheck this X to unpair the records

Showing 11 Tax Lots (2 unpaired)

# Hand Pairing Tax Lot and Property records

The Pairing Settings view allows you to select the fields from each table (Property and Tax Lot) to view in the Pairing screen

Check the fields to view for each table

Only the fields mapped to the specific table will be shown for each table

**Pairing Settings**

**Properties**

Column Name
Address Line 1 (Property)
PM Property ID
Custom ID 1 (Property)
PM Parent Property ID
Jurisdiction Property ID
UBID
Address Line 2 (Property)
City (Property)
State (Property)
Postal Code (Property)

**Tax Lots**

Column Name
Address Line 1 (Tax Lot)
Jurisdiction Tax Lot ID
Custom ID 1 (Tax Lot)
Address Line 2 (Tax Lot)
City (Tax Lot)

# Properties List View - Menu Links

The screenshot shows the SEED Platform interface. At the top left is the "SEED PLATFORM™" logo. At the top right are "Current Organization: BPS Test" and a "+" button. Below the header is a navigation bar with the title "Properties". Underneath the title are eight menu items: "Properties List" (highlighted in grey), "Properties List (legacy)", "Column List Profiles", "Reports", "Cross-Cycles", "Map", "Data", and "Summary (Beta)".

**Properties List:** Displays the latest version of the Properties List view

**Properties List (legacy):** Displays the previous version of the Properties List view which will be deprecated at some point

**Column List Profiles:** Allows creation of multiple field lists with different fields selected

**Reports:** View data for the properties in graph form

**Cross-Cycles:** Allows viewing data across multiple cycles

**Map:** If the properties have been correctly geocoded, they will be displayed on a map based on those locations

**Data:** Links to **Insights**

**Summary (Beta):** Displays summary information about the records and fields by cycle

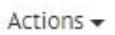
# Properties List (Legacy)

This page shows the “Legacy” List view, which will be deprecated at some point

**SEED PLATFORM™**

Current Organization: LBNL 302 

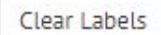
**Properties**

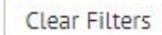
Select Actions to act on records 

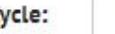
Select the Cycle 

Filter by label: Add a label 

AND OR EXCLUDE 

Clear Labels 

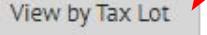
Clear Filters 

Cycle: 2018 Compliance Cycle 

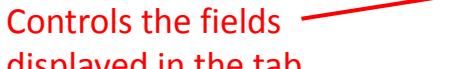
Two tabs:

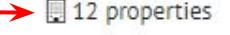
- Property
- Tax Lots

View by Property 

View by Tax Lot 

Column List Profile: Property List View 

Controls the fields displayed in the tab 

Number of Property records for this cycle  12 properties

PM Property ID	Jurisdiction Tax Lot ID	Address 1	Property Name	Property Type	Gross Floor Area (ft <sup>2</sup> )	ENERGY STAR Score
1154623	11160509	2700 Welstone Ave NE	Hilltop Retail	Retail	23,543.00	63
1311523	24651456	11 Ninth Street	Lucky University	College/University		
1311524	24651456	12 Ninth Street	Grange Hall	Performing Arts	124,523.00	77
1311525	24651455	20 Tenth Street	Biology Hall	Laboratory	421,351.00	43
1311526	24651456	35 Tenth Street	Rowling Gym	Fitness Center/Health ...	1,234.00	59

Click + to see related records from the other tab 

Click on i to go to Detailed record view 

This icon links to Meters for the record 

This icon will link to Notes for the record 

This icon indicates merged records 

Toggle checkmark on and off to select records for Actions 

# Properties List

SEED PLATFORM™

See the next pages for details

Current Organization: BPS Test ▾



## Properties

Properties List

Properties List (legacy)

Column List Profiles

Reports

Cross-Cycles

Map

Data

Summary (Beta)

Cycle: 2019

Sorting By (in order): (from table below)



Column List Profile: Property Default Fields

Current Filters: (from table below)



Actions:

Filter By Label: Add a label



AND

OR

EXCLUDE

Properties with merged records

Properties with Notes

Properties with Meter Data

Filter Group: Bad Energystar



Expand to see labels for each property

1-9



		PM Property ID	Property Name	Property Type	Gross Floor Area (ft <sup>2</sup> )	Address Line 1
+	✓	22178843	Medstar POB South To...	Hospital	76,319.00	106 IRVING ST NW
✓	✓	22178844	1801 Pennsylvania Ave...	Office	220,131.00	1801 PENNSYLVANIA A...
✓	✓	22178845	GSA: 300 E Street SW	Office	659,773.00	0300 E ST SW
✓	✓	22178846	Paul H.Nitze	Office	58,717.00	1740 MASSACHUSETT...
✓	✓	22482006	Hampton House	Multifamily	83,580.00	2700 CONNECTICUT A...
✓	✓	22178848	BuildingType-7033951...	Office	447,442.00	3303 Water St NW
✓	✓	22178849	15th and H Street Asso...	Multifamily	230,129.00	1428 H ST NW
✓	✓	22178850	Eastern Market	Food Service	29,906.00	635 NORTH CAROLINA...

Click to see Detail View

# Properties List - Upper Screen

SEED PLATFORM™

Organization

Current Organization: BPS Test ▾



## Properties

Select the Cycle

Properties List

Properties List (legacy)

Column List Profiles

Reports

Cross-Cycles

Map

Data

Summary (Beta)

Displays the fields  
controlling the  
current sort order

Cycle: 2019

Sorting By (in order): Property Name asc (from table below)



Column List Profile:

Property Default Fields

Current Filters: Gross Floor Area (ft<sup>2</sup>) > 100000 (from table below)

Actions:

Select Actions to act on records

Select All (9)

Select None

Selected Properties (0 selected)

- Merge
- Delete
- Export
- Add/Remove Labels
- Data Quality Check
- Email
- Run Analysis (beta)
- Refresh Metadata
- Geocode
- Decode UBID/ULID
- Update Salesforce

### Options

Only Show Populated Columns

Controls the fields  
displayed in the View by  
Property tab

- Property Default Fields
- BETTER Results
- BPS Default
- Property Default Fields**

These are defined in  
Column List Profiles

Shows the current  
filters set for fields

Gross Floor Area (ft <sup>2</sup> )	>100000
	220,131.00
	659,773.00
	127,991.00

Filter By Label: Compliant Add a label



AND

OR

EXCLUDE

Filter Group: Compliant, &gt; 100,000 SF



Shows the current  
Labels that are being  
used as filters

- Compliant
- BETTER Analysis
- Compliant
- Compliant

Filter groups can be  
defined for a  
combination of  
Filters and Labels

# Property & Tax Lots - List View

## View by Property

“Collapsed” view shows all associated records from the tax lot table separated by semicolons

The screenshot shows a list view for 'View by Property'. A dropdown menu at the top left is set to '2018 Compliance Cycle'. Below it, there are two tabs: 'View by Property' (selected) and 'View by Tax Lot'. A red arrow points to the 'PM Property ID' column header, which is pinned to the left side of the grid. Another red arrow points to the '+' icon in the top-left corner of the grid, indicating it can be expanded. The grid contains several rows of data, each representing a tax lot. The first row is expanded, showing four columns: 'Jurisdiction Tax Lot ID (Tax Lot) ...', 'Address Line 1', 'Address (Tax Lot)', and 'Property Type ...'. The other three rows are collapsed, showing only the 'Jurisdiction Tax Lot ID (Tax Lot)' column. Red arrows point from the collapsed rows to the right, labeled 'Address from the Property table' and 'Address from the Tax Lot table' respectively.

View by Property				
View by Tax Lot				
Cycle:	2018 Compliance Cycle	PM Property ID	Jurisdiction Tax Lot ID (Tax Lot) ...	Address Line 1
		5233255	33366125; 33366148; 33366555	521 Elm Street
			33366125	525 Elm Street
			33366148	530 Elm Street
			33366555	521 Elm Street

## View by Tax Lot

“Collapsed” view shows all associated records from the property table separated by semicolons

Jurisdiction Tax lot ID can be pinned to the left side of the grid  
Click the + icon to “expand” the view to show data from the associated Property (in this case Portfolio Manager) records

The screenshot shows a list view for 'View by Tax Lot'. A dropdown menu at the top left is set to '2018 Compliance Cycle'. Below it, there are two tabs: 'View by Property' (selected) and 'View by Tax Lot'. A red arrow points to the 'Jurisdiction Tax Lot ID' column header, which is pinned to the left side of the grid. Another red arrow points to the '+' icon in the top-left corner of the grid, indicating it can be expanded. The grid contains several rows of data, each representing a property record. The first row is expanded, showing five columns: 'PM Property ID (Property ...)', 'Address', 'Address Line 1 (Property ...)', and 'Parcel Owner'. The other three rows are collapsed, showing only the 'PM Property ID (Property ...)' column. Red arrows point from the collapsed rows to the right, labeled 'Address from the Property table' and 'Address from the Tax Lot table' respectively.

View by Property				
View by Tax Lot				
Jurisdiction Tax Lot ID	PM Property ID (Property ...)	Address	Address Line 1 (Property ...)	Parcel Owner
	13334485	1311527; 1311528	93029 Wellington Blvd	93029 Wellington Blvd... Lucky University
		1311527		93029 Wellington Blvd
		1311528		93031 Wellington Blvd
	1552813	2264; 2266	050 Willow Ave SE	50 Willow Ave SE U LLC
	23810533	1311527; 1311528	94000 Wellington Blvd	93029 Wellington Blvd... Lucky University
	24651456	1311523; 1311524; 13...	11 Ninth Street	11 Ninth Street; 35 Ten... Lucky University
	33366125	5233255	525 Elm Street	521 Elm Street Norton Schools
	33366148	5233255	530 Elm Street	521 Elm Street
	33366555	5233255	521 Elm Street	Norton Schools

# Hand Merging / Pairing Records

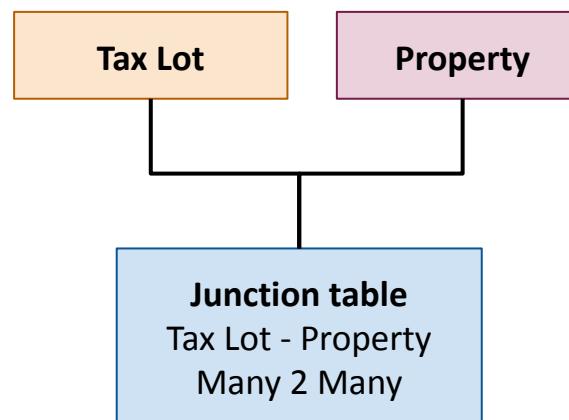
## Merging (matching):

- Records are merged within the same table (Tax Lot or Property) based on matching fields



## Pairing:

- Records are “paired” between Tax Lot and Property tables in the Junction table based on matching fields



# Hand Merging Records

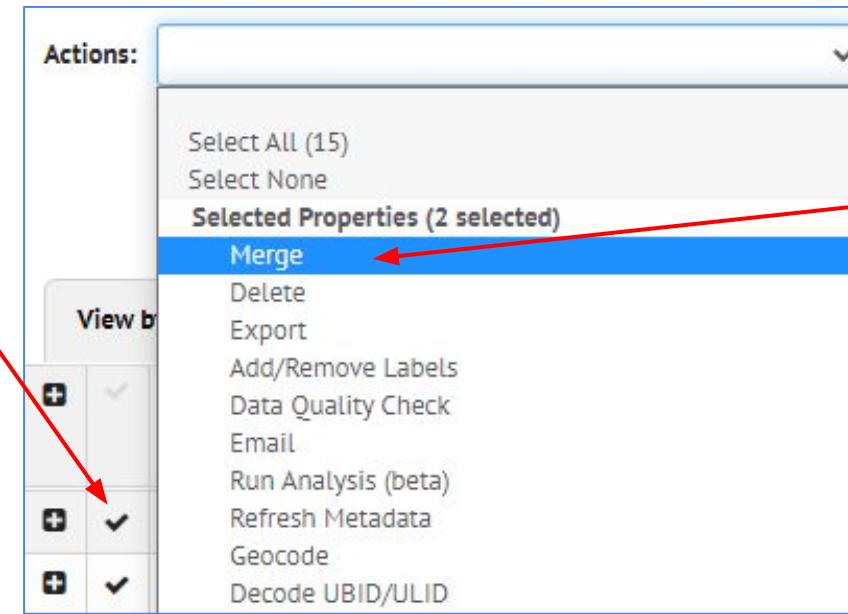
## Merging

The hand merging functionality is in the **Inventory List** view

It is possible to merge two records together if the program didn't automatically merge them

### Step 1:

In Inventory List view  
Select records to hand merge (by clicking on the checkmark to the left of the record)



**Step 2:**  
Select the **Merge** Action

## Merge Multiple Properties

### Resulting Merge

Address 1	Address Line 1	Alert - Individual mont...	Alert - Meter has less t...	Alert - No meters are
50 Willow Ave SE	50 Willow Ave SE	Ok	Ok	Ok

Records will be merged together from bottom to top, with the top record having the highest priority. Drag to reorder.

Address 1	Address Line 1	Alert - Individual mont...	Alert - Meter has less t...	Alert - No meter
50 Willow Ave SE	50 Willow Ave SE	Ok	Ok	Ok
50 Willow Ave SE	50 Willow Ave SE	Possible Issue	Possible Issue	Possible Issue

### Step 3:

Reorder the records if needed for final merge result

**Merge**

### Step 4:

You will now see only the one Main record in the Inventory List view

View by Property					View by Tax Lot	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PM Property ID	Address Line 1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2266	50 Willow Ave SE

# Hand Un-Merging Records

Merged records can be viewed in the Inventory Detail view and can also be un-merged

The screenshot illustrates the process of unmerging records in the Inventory Detail view. A red arrow points from the text "It is possible to un-merge records (one at a time) in the **Inventory Detail** view" to the "Actions" dropdown menu. The "Unmerge Last" option is highlighted in orange. Another red arrow points from the text "These two records were merged automatically by the program into one Main record" to the PM Property ID column, which shows the value "2266" for both rows. A third red arrow points from the text "Unmerging will make these records into two separate records in the Inventory List view" to the "Confirm" button in a modal dialog at the bottom left. The modal asks "Are you sure you want to unmerge these properties?" and contains "Cancel" and "Confirm" buttons. The "View by Property" tab is selected in the bottom navigation bar.

**Property Detail**

**Property : 50 Willow Ave SE**

**Actions**

- Update with BuildingSync
- Update with Audit Template
- Export BuildingSync
- Export BuildingSync (Excel)
- Add/Remove Labels
- Run Analysis (beta)
- Unmerge Last**
- Merge and Link Matches
- Only Show Populated Columns

Main	buildingSync_ex01_measures.xml	2 - example-data-ESPM-Alerts-UBID.xlsx
Custom	San Francisco	Rust
2023-05-01 5:28 PM	2020-03-05 11:03 AM	2020-10-26 3:51 PM
Manually geocoded (N/A)	Manually geocoded (N/A)	Missing address components (N/A)
PM Property ID	2266	2264

Unmerge Properties

Are you sure you want to unmerge these properties?

Cancel Confirm

**View by Property**   **View by Tax Lot**

+	PM Property ID	Address Line 1	Jurisdiction Tax Lot ID
+	2266	50 Willow Ave SE	1552813
+	2264	50 Willow Ave SE	1552813

**It is possible to un-merge records (one at a time) in the **Inventory Detail** view**

**These two records were merged automatically by the program into one Main record**

**Unmerging will make these records into two separate records in the Inventory List view**

# Data Quality: Run from Inventory List

**Actions:**

Select All (15)  
Select None  
**Selected Properties (30 selected)**

Merge  
Delete  
Export  
Add/Remove Labels  
**Data Quality Check**  
Email  
Run Analysis (beta)  
Refresh Metadata  
Geocode  
Decode UBID/ULID  
Update Salesforce

**Options**

Only Show Populated Columns

Step 1: Check the records to run the Data Qualit check on

Step 2: Click the Data Quality Check option in Actions

Labels are automatically added to the problem records. If those records are fixed and reimported, and the DQ check is rerun, the labels will be automatically removed if the program doesn't detect the data problem

- DQ: Alert: No meters
- DQ: ENERGY STAR Score < 10, > 100
- DQ: Gross Floor Area < 50000
- DQ: Site EUI < 10, > 1000

1

## Step 3: The Data Quality Results screen is displayed

JURISDICTION TAX LOT ID	PM PROPERTY ID	CUSTOM ID	FIELD	ERROR MESSAGE
Jurisdiction Tax Lot ID	PM Property ID	Custom ID	Field	Error Message
24651455	--	--	Address Line 1 (Tax Lot)	Address Line 1 (Tax Lot) is null
--	1154623	--	Site EUI	Site EUI [1202.0] > 1000.0
--	3020139	--	ENERGY STAR Score	ENERGY STAR Score [1] < 10
--	3020139	--	Gross Floor Area	Gross Floor Area [513852.0] > 50000.0
--	4828379	--	ENERGY STAR Score	ENERGY STAR Score is required and is None
--	4828379	--	Gross Floor Area	Gross Floor Area [55121.0] > 50000.0
--	4828379	--	Site EUI	Site EUI is required and is None
--	5233255	--	Gross Floor Area	Gross Floor Area [200000.0] > 50000.0
--	5233255	--	Site EUI	Site EUI [1358.0] > 1000.0
--	1311523	--	ENERGY STAR Score	ENERGY STAR Score is required and is None

The Data Quality Results can be exported to a CSV file

Data Quality Check Results.csv							
	A	B	C	D	E	F	G
1	Table	Address Line 1	PM Property ID	Tax Lot ID	Field	Error Message	Severity
2	TaxLotState			24651455	Address Line 1 (Tax Lot)	Address Line 1 (Tax Lot) is null	error
3	PropertyState	2700 Welstone Ave NE	1154623		Site EUI	Site EUI [1202.0] > 1000.0	error
4	PropertyState	2655 Welstone Ave NE	3020139		ENERGY STAR Score	ENERGY STAR Score [1] < 10	error
5	PropertyState	2655 Welstone Ave NE	3020139		Gross Floor Area	Gross Floor Area [513852.0] > 50000.0	error
6	PropertyState	2660 Welstone Ave NE	4828379		ENERGY STAR Score	ENERGY STAR Score is required and is None	error
7	PropertyState	2660 Welstone Ave NE	4828379		Gross Floor Area	Gross Floor Area [55121.0] > 50000.0	error
8	PropertyState	2660 Welstone Ave NE	4828379		Site EUI	Site EUI is required and is None	error

# List Grid Functionality

The grid used in the Inventory List view has many features  
*(explained in detail on the following pages)*

- **Filter** -- enter filter criteria in the blank box under the column name
- **Sort** -- click in the middle of the column header to see the small up and down arrows to sort ascending and descending; alternatively select the right menu arrow in the column to see the Sort Ascending, Sort Descending and Remove Sort options
- **Select fields to view** -- click on the right menu arrow in an individual field to turn it on or off, or click on List Settings to see a list of columns to display or hide
- **Field order by dragging columns** -- click in the middle of a column header, hold the left mouse button down, and drag it right or left to place it the desired order
- **Pin columns** -- click on the right menu arrow in an individual column to see the Pin Left, Pin Right and Unpin options for that column
- **Resize columns** - click on the right hand side of the column header, hold the left mouse button down, and drag the column edge right and left to the desired width
- **Fixed column headers** -- the column headers are fixed, so scrolling down keeps the column headers visible.
- **Single page with all the data** -- All the records for a view are loaded at once -- there is no data view “pagination

# Filter

Filter by Label shows only labels that are applied to records

## Properties

Properties List

Properties List (legacy)

Column List Profiles

Reports

Cross-Cycles

Map

Data

Summary (Beta)

Cycle: 2018 Compliance Cycle

Sorting By (in order):

(from table below)

Can do AND, OR or EXCLUDE filters by label

Column List Profile: 2018 Compliance Few Fields

Current Filters:

(from table below)

Actions: Filter By Label: Add a label

AND OR EXCLUDE

Filter Group:

&gt;50000 SF

Compliant

DQ: Alert - Monthly meter en...

DQ: Floor Area &lt; 50000 SF

DQ: Site EUI Suspect (high ...

Energy Star Score&gt; 25

Lucky University 2

View by Property

View by Tax Lot

	PM Property ID	Address Line 1	Jurisdiction Tax L
	1311527	93029 Wellington Blvd	13334485; 23810

Numeric fields can have expressions

Gross Floor Area	>=25000,<100000
51764	
51843	
59188	
61650	
64123	
67425	

Text columns can be filtered

Address Line 1 (Property)
buchanan
30326 W Buchanan Lane
31553 S Buchanan Road
50518 SW Buchanan Lane
112019 S Buchanan Court
137291 SW Buchanan Highway
000023255 NW Buchanan Highway
000059001 NE Buchanan Way
0000224905 E Buchanan Loop

Enter values into the input boxes at the top of the field in order to filter the data by those values

The program will then only display the records with values based on the filter criteria

The filter feature supports multiple filters separated by commas.

Building Address	Building Floor Area
	>10000,<200000 <span style="border: 1px solid black; padding: 2px;">×</span>
39929 Ranch 99 Road	23543
521 Elm Street	24523
93029 Wellington Blvd	45324
525 Elm Street	55121
050 Willow Ave SE	124523

Date strings can be either

- a year (2016)
- a year and a month (2016-05)
- a full date with no time (2016-05-31)

Text/Numeric Case-Insensitive Contains	abc 5
Text/Numeric Exact Match	"" "abc" = 5
Text/Numeric Not Exact Match	!= "" != "abc" != 5
Numeric Range	> 5 >= 5 < 5 <= 5
Text/Numeric Combination	123, street
Date Equality	2016 2016-05 2016-05-31 = 2016 = 2016-05
Date Inequality	!= 2015 != 2016-10-01
Date Range	>= 2016 < 2016-05
Date Combination	2016, >= 2016-10-01 >= 2015, < 2017

# Filter

Most of the lists in SEED (Mapping, Matching, Inventory) allow you to sort and filter on the data in the columns by entering the filter values in the input box below the field (column name)

SEED supports filtering using “expressions” for both text and numeric data

- “” double quotes for null (empty) string
- !”” for non-null (non-empty) string
- Enter a value to show all records that contain that value:  
typing **condo** will show results for **CONDO** and **COMMERCIAL CONDO**
- Enter a value surrounded by double quotes (“”) for an exact match (including case):  
typing “**CONDO**” will show results for only uppercase **CONDO**
- Operators: =, !=, <, <=, >, >=
  - **>100** is greater than 100
  - **!0** is not equal to 0
- Multiple expressions should be separated by commas.  
■ **>1984,<1990** is greater than 1984 and less than 1990

Use Description
<b>CONDO</b>
CONDO
COMMERCIAL CONDO
COMMERCIAL CONDO
CONDO

Use Description
<b>"CONDO"</b>
CONDO
CONDO
CONDO
CONDO

ENERGY STAR Score	Site EUI
<b>&gt;=50,&lt;=75</b>	<b>&gt;20</b>
75	51.5
59	74.4
61	78.9
75	78.9
50	88.1
71	91.2

Add as many filters as needed, in this case the filter is show only records with ENERGY STAR Score data between 50 and 75, and with a Site EUI greater than 20

# Filter Using Labels

Multiple labels can be applied to the filter box and filter operators (AND, OR, and EXCLUDE) can be applied to the filter

- Filter Operators
  - AND == When filtering on multiple labels, displays records that have all the labels selected in the Filter by Label box
  - OR == When filtering on multiple labels, displays records that have at least one of the labels selected in the Filter by Label box
  - EXCLUDE == Displays all records that DO NOT have the label or labels in the Filter by Label box

The screenshot shows the Inventory application's search and filter interface. At the top, there are dropdowns for 'Cycle' (2018 Compliance Cycle), 'Sorting By (in order)' (from table below), and 'Actions'. Below these are dropdowns for 'Column List Profile' (2018 Compliance Few Fields) and 'Current Filters' (from table below). A 'Filter By Label' section contains a button for 'Compliant' with an 'x' icon, a 'Add a label' button, and buttons for 'AND', 'OR', and 'EXCLUDE'. A 'Filter Group' dropdown shows 'Compliant / Energy Star > 50'. Below the filters is a table with columns: PM Property ID, Address Line 1, Jurisdiction Tax Lot ID, Address (Tax Lot), and Property Type. The table has three rows of data. Red arrows point from the 'Compliant' label in the first row to the 'Information' icon in the second row, and from the 'Filter Group' dropdown to the 'View by Tax Lot' button.

PM Property ID	Address Line 1	Jurisdiction Tax Lot ID	Address (Tax Lot)	Property Type
5233255	521 Elm Street	33366125; 33366148; ...	521 Elm Street; 525 EL...	K-12 School
1311525	20 Tenth Street			Laboratory



Clicking on the "information" icon displays the Detail view which shows all the labels associated with that record.

The screenshot shows the 'Property : 521 Elm Street' detail view. It includes fields for 'Cycle' (2018 Compliance Cycle), 'Labels' (>>50000 SF, Compliant), 'Detail Column List Profile' (Property Detail Fields), and a table with columns 'Field' and 'Main'. The table has two rows: 'City' (Rust) and 'Created' (2020-10-26 3:51 PM). A red arrow points from the 'Information' icon in the previous screenshot to this detail view.

Field	Main
City	Rust
Created	2020-10-26 3:51 PM

# Filter Using Labels: AND / OR

Filter Operator == **AND**: Shows records that have all of the labels in the Filter by Label box

In this case, it shows the one record that fits the criteria for both Suspect Site EUI and Property Name to Lucky University

This screenshot shows a data filtering interface with the following configuration:

- Actions:** A dropdown menu.
- Filter By Label:** Two labels are selected: "Lucky University 2" and "DQ: Site EUI Suspect (high or low)".
- Filter Group:** An empty field.
- Column List Profile:** Set to "Property List View".
- Operator:** The "AND" button is highlighted with a red box.

The main table displays the following data row:

	PM Property ID	Address Line 1	Address (Tax Lot)	Property Type	Site EUI (kBtu/ft <sup>2</sup> /year)	ENERGY STAR Score	Property Name
+ 1311523	1311523	11 Ninth Street	11 Ninth Street	College/University	1,202.00	23	Lucky University

Filter Operator == **OR**: Shows records that have at least one of the labels in the Filter by Label box

This screenshot shows a data filtering interface with the following configuration:

- Actions:** A dropdown menu.
- Filter By Label:** Two labels are selected: "Lucky University 2" and "DQ: Site EUI Suspect (high or low)".
- Filter Group:** An empty field.
- Column List Profile:** Set to "Property List View".
- Operator:** The "OR" button is highlighted with a red box.

The main table displays the following data rows:

	PM Property ID	Address Line 1	Address (Tax Lot)	Property Type	Site EUI (kBtu/ft <sup>2</sup> /year)	ENERGY STAR Score	Property Name
+ 1311525	1311525	20 Tenth Street		Laboratory	84.00	56	Biology Hall
+ 1311527	1311527	93029 Wellington...	93029 Wellington Blvd...	College/University	45.00	56	East Computing Hall
+ 1311524	1311524		11 Ninth Street	Performing Arts	219.00	99	Grange Hall
+ 3020139	3020139	2655 Welstone A...	2655 Welstone Ave NE	Multifamily Housing	652.30	25	Hilltop Condos
+ 1311528	1311528	93031 Wellington...	93029 Wellington Blvd...	Residence		55	International House
+ 1311523	1311523	11 Ninth Street	11 Ninth Street	College/University	1,202.00	23	Lucky University
+ 1311526	1311526	35 Tenth Street	11 Ninth Street	Fitness Center/Health ...	72.00	24	Rowling Gym

# Filter Using Labels: EXCLUDE

Filter Operator == EXCLUDE: Shows records that have NONE of the labels in the Filter by Label box

The screenshot shows a data filtering interface with the following components:

- Actions:** A dropdown menu.
- Filter By Label:** A text input field containing "Compliant" with a delete icon and an "Add a label" link. A red arrow points to the "Compliant" text.
- Filter Group:** A dropdown menu.
- Column List Profile:** A dropdown menu set to "Property List View".
- View Options:** Buttons for "View by Property" (selected) and "View by Tax Lot".
- Table Headers:** PM Property ID, Address Line 1, Address (Tax Lot), Property Type, Site EUI (kBtu/ft<sup>2</sup>/year), ENERG...
- Data Rows:**
  - Row 1: Site EUI == Blank (highlighted in orange)
  - Row 2: >50000 SF (highlighted in green)
  - Row 3: Target for Energy Efficiency Measures (highlighted in orange)
  - Row 4: Standard data row
  - Row 5: Standard data row

None of these records have the label  
"Compliant" attached to them

# Filter Groups

Filter Groups has been added in order to save filtering options

- Filter the data, using the field filter inputs or labels, and assign that set of filters a Filter Group name

**Properties**

Properties List Properties List (legacy) Column List Profiles Reports Cross-Cycles Map Data Summary (Beta)

Cycle: 2018 Compliance Cycle Sorting By (in order): (from table below) Delete

Column List Profile: 2018 Compliance Year Property Fields Current Filters: Gross Floor Area (ft<sup>2</sup>) > 50000 (from table below) Delete

Actions: Filter By Label: Energy Star Score > 25 Add a Label Delete AND OR EXCLUDE

Filter on labels Filter Group: Name that combinations of filters as a Filter Group Filter on fields

Filter Group: Energy Star Score > 25, Floor area > 50k (from table below) ✓ ✖ ✖ ✖ ✖

View by Property View by Tax Lot

	PM Property ID	ENERGY STAR Score	Gross Floor Area (ft <sup>2</sup> )	Property Name
+ <span style="color: green;">✓</span>	5233255	55	200,000.00	Montessori Day School
+ <span style="color: green;">✓</span>	1311528	55	482,215.00	International House
+ <span style="color: green;">✓</span>	4828379	55	55,121.00	Hilltop Offices
+ <span style="color: green;">✓</span>	1311524	99	124,523.00	Grange Hall
+ <span style="color: green;">✓</span>	1311525	43	421,351.00	Biology Hall

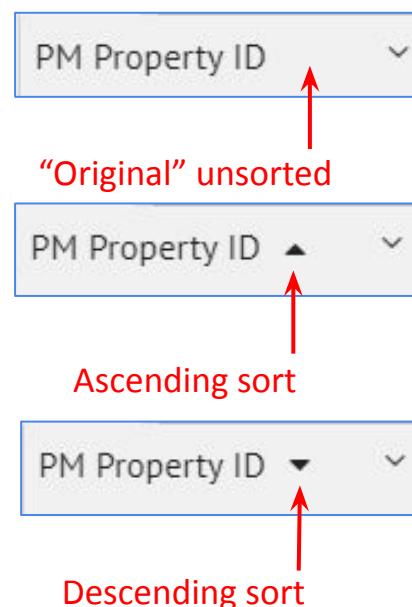


You can sort in two different ways

- Up/down arrow
- Column menu on right

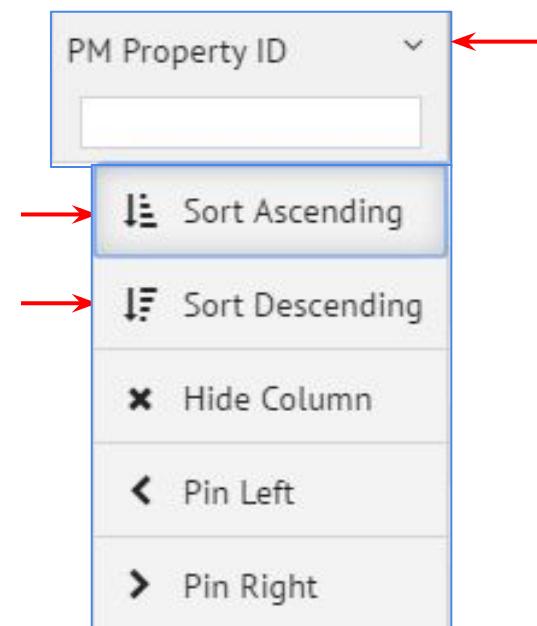
If you click to the right of the field name, you can toggle between

- Ascending
- Descending
- “original” unsorted



The down arrow to the right of the field shows a menu of sort options, including Remove sort

Using this Sort option allows hierarchical sorting



# Pin Columns

## Pinning columns left and right

- Individual columns can be pinned either to the right or the left
- Multiple columns can be pinned

The down arrow to the right of the field name shows a menu of sort options, including **Hide Column**

If a column is already pinned, click on the field right hand pulldown to select the **Unpin** option

**Column List Profiles** also has feature to pin columns to the right side

Column Name	Action
PM Property ID	Pinned to Left
Jurisdiction Tax Lot ID	Pinned to Left
Address Line 1 (Property)	Pinned to Left

# Save Column List Profile

**Column List Profiles**, where fields are selected for display, can be saved by “name”, which enables the creation of combinations of fields that are useful to view for specific data review cases.

There are a few different options for doing this.

- **List View / Actions option**

There is now an option in the Actions pulldown list to “**Only Show Populated Columns**”. This is good way to get started when creating a specifically named List Setting

- **Column List Profiles**

For both List and Detail view, there is a new option called “Column List Profiles” which allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list in both the Inventory List and Detail views.



It is possible to save separate (and multiple) Column List Profiles to names for each of these cases:

- View by Property List View
- View by Property Detail View
- View by Tax Lot List View
- View by Tax Lot Detail View

The following pages illustrate the way that these options work.

# List View - Only Show Populated Columns

## List View / Actions option

The “Only Show Populated Columns” option in the Inventory List / Actions pulldown is a good way to get started when defining saved List Settings.

Create Settings Profile

Profile Name	BPS Default Fields
	<input type="button" value="Cancel"/> <input type="button" value="Create Profile"/>

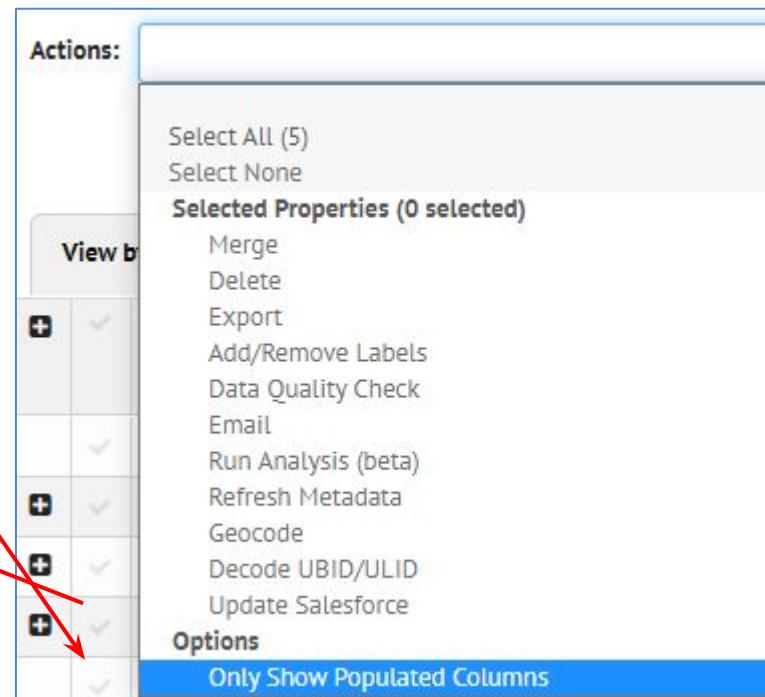
1 - Select the “Only Show Populated Columns” in either the View by Property or View by Tax Lot tabs

Only Show Populated Columns

This will reset your visible columns and column order to only columns that contain data. Are you sure you want to continue?

<input type="button" value="Cancel"/> <input type="button" value="Start"/>
--

2 - Name the Column List Profile if none exist.



A dialog box will appear which warns that the columns displayed will be reset. Click the **Start** button to continue or the **Cancel** button to return to the List view without starting the action.

Only Show Populated Columns

Found 20 populated columns

<input type="button" value="Refresh"/>
--

When the program has finished determining the populated columns, the number of columns found is displayed.

Click the Refresh button to refresh the browser and see the new fields

Column List Profile: BPS Default Fields

Actions:

<input type="button" value="View by Property"/> <input type="button" value="View by Tax Lot"/>
<input type="button"/> Address Line 1 <input type="button"/> Gross Floor Area (ft <sup>2</sup> ) <input type="button"/> Owner
<input type="button"/> 106 IRVING ST NW <input type="button"/> 76,319.00 <input type="button"/> WASHINGTON HOSPIT..

These fields are now what is displayed in the List View with the default name for the **Column List Profile**

It will still probably be necessary to refine the fields to be displayed, but this is a good way to start the process

# List View - Column List Profiles

- Displays all possible fields for both Tax Lot and Property
- Tax Lot and Property Column List Profiles can be different
- Shows fields that are in table NOT being viewed
- Changes made here are reflected in the View by Tax Lot tab, and vice versa
- Field display and order are on one screen
- Changes are saved to a Column List Profile (see next page)

Enter values to search the list of fields

Shows which fields are pinned left

Can set more fields to be pinned left

		Properties																											
		Properties List	Properties List (beta)	Column List Profiles	Reports	Cross-Cycles	Map																						
Column Order/Visibility		Column List Profile: <input type="button" value="Property List View"/>																											
		Tax Lots List	Tax Lots List (legacy)	Column List Profiles	Reports	Cross-Cycles	Map	Data	Summary (Beta)																				
Column Order/Visibility		Column List Profile: <input type="button" value="BPS Tax Lot Default Fields"/>																											
<p><b>Add Shared Tax Lots</b></p> <p><input type="checkbox"/> Include in your Tax Lot List all tax lots shared with you.</p> <p><b>There are 156 columns of data available to you.</b></p> <p>Select columns from the list below to make them appear in your Tax Lot List table. Drag the rows to change the order in which they appear. Pin the rows for them to be left-pinned in the list view.</p> <table border="1"> <thead> <tr> <th><input checked="" type="checkbox"/></th> <th>Column Name</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>Jurisdiction Tax Lot ID</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>PM Property ID (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Address Line 1</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>City</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Total GHG Emissions Intensity (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Total GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Delta GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Number Properties</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Postal Code</td> </tr> </tbody> </table>										<input checked="" type="checkbox"/>	Column Name	<input checked="" type="checkbox"/>	Jurisdiction Tax Lot ID	<input checked="" type="checkbox"/>	PM Property ID (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>	<input checked="" type="checkbox"/>	Address Line 1	<input checked="" type="checkbox"/>	City	<input checked="" type="checkbox"/>	Total GHG Emissions Intensity (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>	<input checked="" type="checkbox"/>	Total GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>	<input checked="" type="checkbox"/>	Delta GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>	<input checked="" type="checkbox"/>	Number Properties	<input checked="" type="checkbox"/>	Postal Code
<input checked="" type="checkbox"/>	Column Name																												
<input checked="" type="checkbox"/>	Jurisdiction Tax Lot ID																												
<input checked="" type="checkbox"/>	PM Property ID (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>																												
<input checked="" type="checkbox"/>	Address Line 1																												
<input checked="" type="checkbox"/>	City																												
<input checked="" type="checkbox"/>	Total GHG Emissions Intensity (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>																												
<input checked="" type="checkbox"/>	Total GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>																												
<input checked="" type="checkbox"/>	Delta GHG Emissions (Property) <span style="border: 1px solid black; border-radius: 15px; padding: 2px;">property</span>																												
<input checked="" type="checkbox"/>	Number Properties																												
<input checked="" type="checkbox"/>	Postal Code																												

# Column List Profiles

- List Settings pages**

In all the List Setting views (for both List and Detail view), there is a new option called “List Settings Profile” which allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list in both the List Settings view as well as the Inventory List views.

To edit an existing Column List Profile, or to make a new one, click the Column List Profiles link on either the Properties or Tax Lot List View

**Properties**

Properties List   Properties List (legacy)   **Column List Profiles**   Reports   Cross-Cycles   Map   Data   Summary (Beta)   Rename   New

**Column Order/Visibility**

Column List Profile: Property Default Fields

Save   Delete

Click Save to save the changes to the current List Setting Profile

Click New to save the newly selected fields to a new List Settings Profile

**There are 156 columns of data available to you.**

Select columns from the list below to make them appear in your Property List table. Drag the rows to change the order in which they appear. Pin the rows for them to be left-pinned in the list view.

	Column Name
✓	PM Property ID
✓	Property Name
✓	Property Type
✓	ENERGY STAR Score
✓	Delta GHG Emissions

Check new fields you want to add to the List Settings Profile  
Uncheck fields you want to remove from the List Settings Profile

# List View – Column List Profiles – Reorder Columns

<input checked="" type="checkbox"/>	Column Name
<input checked="" type="checkbox"/>	PM Property ID
<input checked="" type="checkbox"/>	Jurisdiction Tax Lot ID <span style="border: 1px solid black; border-radius: 10px; padding: 2px;">tax lot</span>
<input checked="" type="checkbox"/>	Address Line 1 (Property)
<input checked="" type="checkbox"/>	Property Name
<input checked="" type="checkbox"/>	Gross Floor Area
<input checked="" type="checkbox"/>	ENERGY STAR Score
<input checked="" type="checkbox"/>	City (Property)

Click and hold down the left mouse button, and drag the Column Names around to change the order

<input checked="" type="checkbox"/>	Column Name
<input checked="" type="checkbox"/>	address
<input checked="" type="checkbox"/>	Address Line 1 (Property)
<input checked="" type="checkbox"/>	Address Line 2 (Property)
<input checked="" type="checkbox"/>	Owner Address
<input checked="" type="checkbox"/>	Address Line 2 (Tax Lot) <span style="border: 1px solid black; border-radius: 10px; padding: 2px;">tax lot</span>
<input checked="" type="checkbox"/>	Address Line 1 (Tax Lot) <span style="border: 1px solid black; border-radius: 10px; padding: 2px;">tax lot</span>

Adding a checkmark to an unchecked field adds it to the end of the checked fields. It can then be dragged to the desired position

<input checked="" type="checkbox"/>	Column Name
<input checked="" type="checkbox"/>	Site EUI
<input checked="" type="checkbox"/>	Property Type
<input checked="" type="checkbox"/>	Year Ending
<input checked="" type="checkbox"/>	Custom ID 1
<input checked="" type="checkbox"/>	Address Line 1 (Tax Lot) <span style="border: 1px solid black; border-radius: 10px; padding: 2px;">tax lot</span>
<input checked="" type="checkbox"/>	PM Release Date

# List View – Reports Overview

**Properties**

Properties List Properties List (beta) Column List Profiles Reports Cross-Cycles Map

From either the **Properties** or **Tax Lots Inventory List** view click on **Reports**

**Select criteria to graph**

Date ranges for reporting based on Cycles

From first date of: 2012 Compliance Year Until last date of: 2012 Compliance Year

X Axis (Energy data)

Y Axis (Building Characteristic)

Click **Update Charts**

The pulldown list shows the Cycles for the organization

X Axis: Site EUI Y Axis: Gross Floor Area Update Charts

X Axis: Site EUI

- Site EUI
- Source EUI
- Weather Norm. Site EUI
- Weather Norm. Source EUI
- Energy Star Score

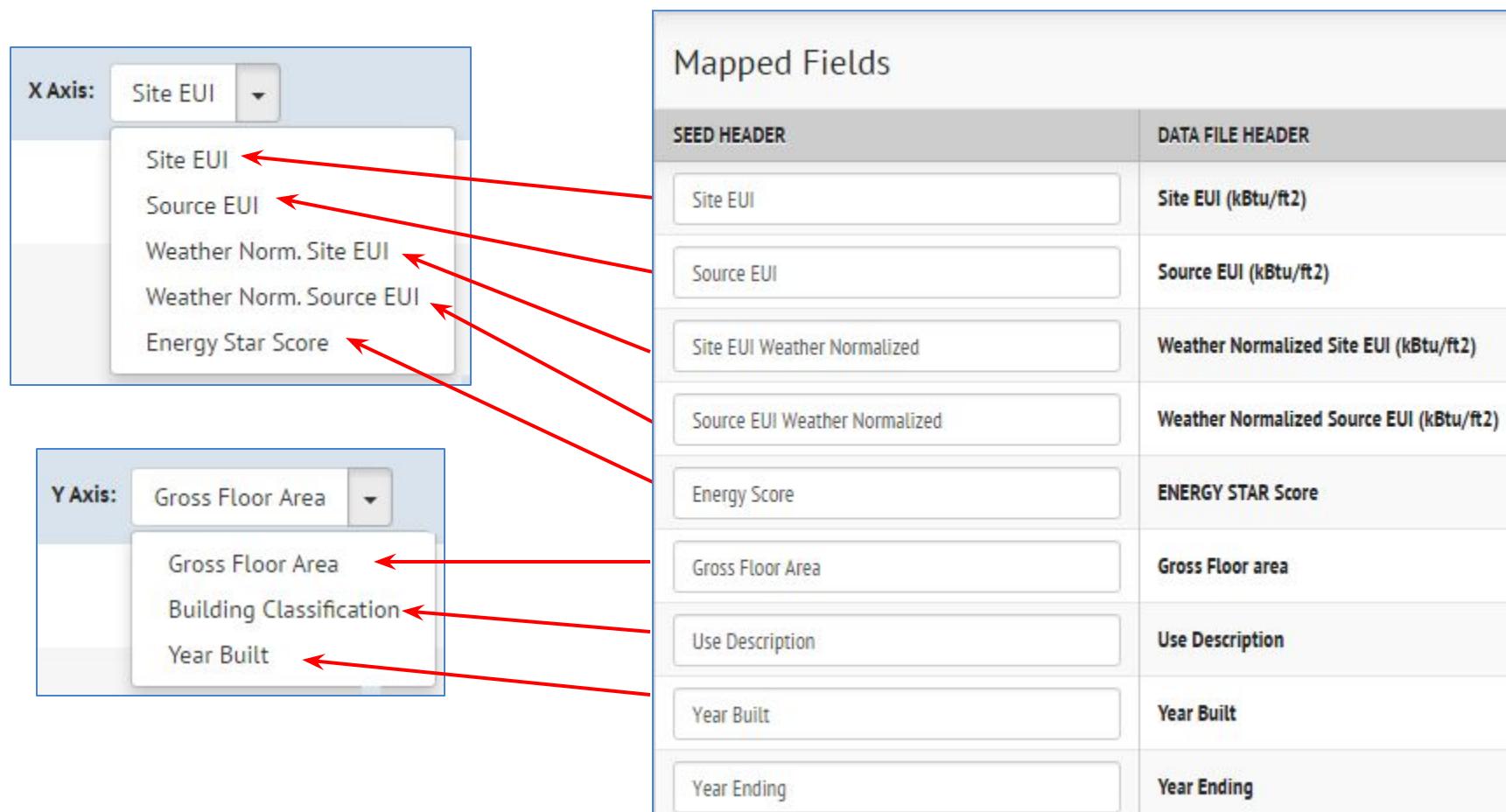
Y Axis: Gross Floor Area

- Gross Floor Area
- Building Classification
- Year Built

These field names must have been used when Mapping data in order to show data in the reports (see the next page for details)

# List View – Reports – Field Mapping

You need to map the following fields in order for the reports to work  
*(Future work will include the ability to select fields that you want to plot so the mapping will not be as critical)*



# List View – Reports

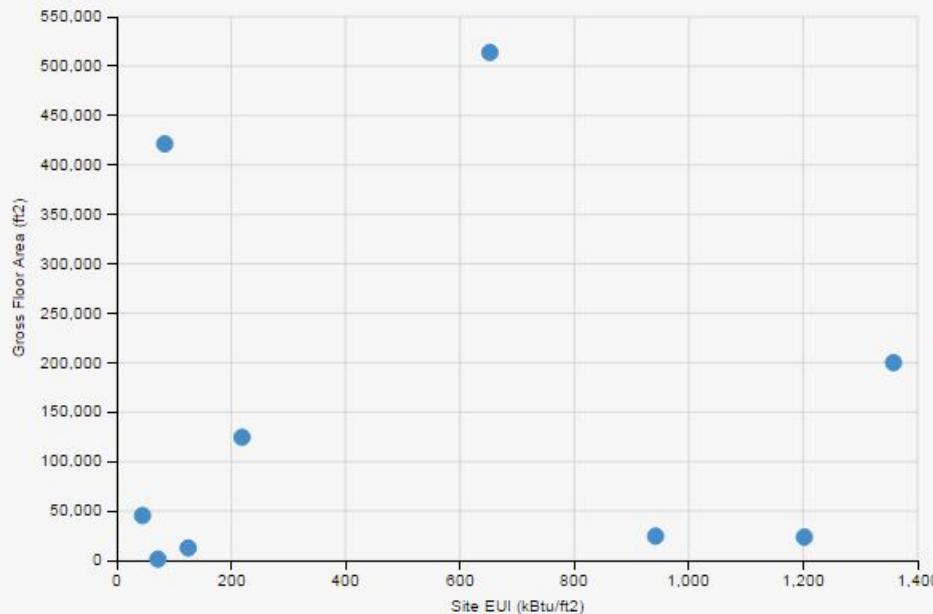
Scatter Plot with all buildings

Bar Graph with Median Values

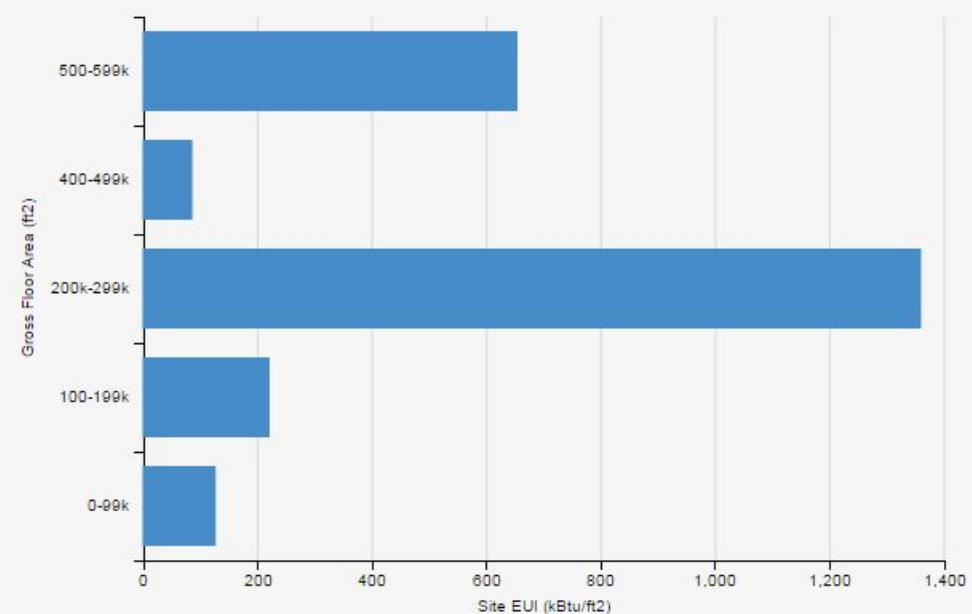
Property Reports

From first date of: 2017 Compliance Until last date of: 2017 Compliance X Axis: Site EUI Y Axis: Gross Floor Area Update Charts

Site Energy Use Intensity vs. Gross Floor Area



Site Energy Use Intensity vs. Gross Floor Area (Aggregated)



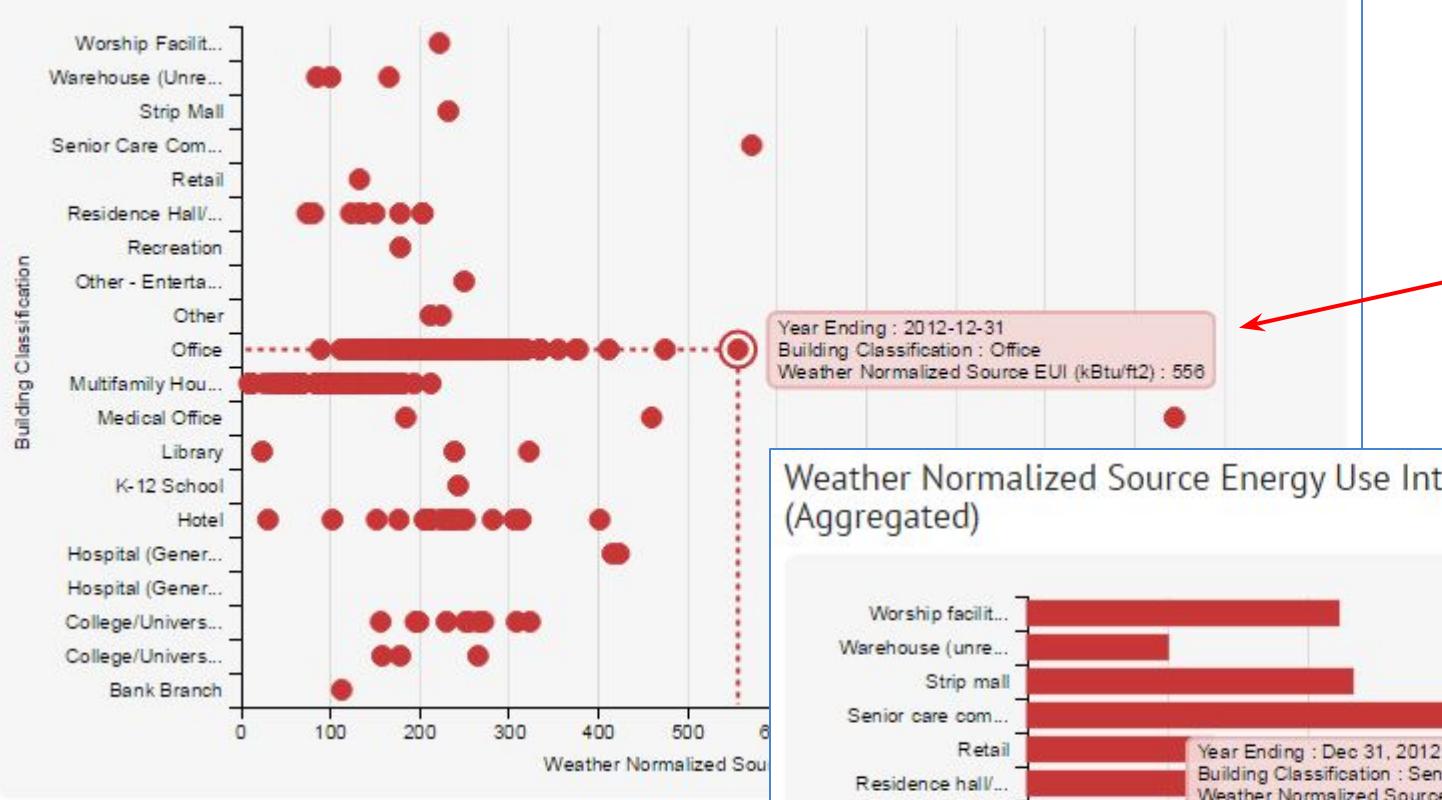
Year Ending	Properties with Data	Total Properties
2017	9	12

Program reports # data points  
actually used for graphs

Year Ending	Properties with Data	Total Properties
2017	9	12

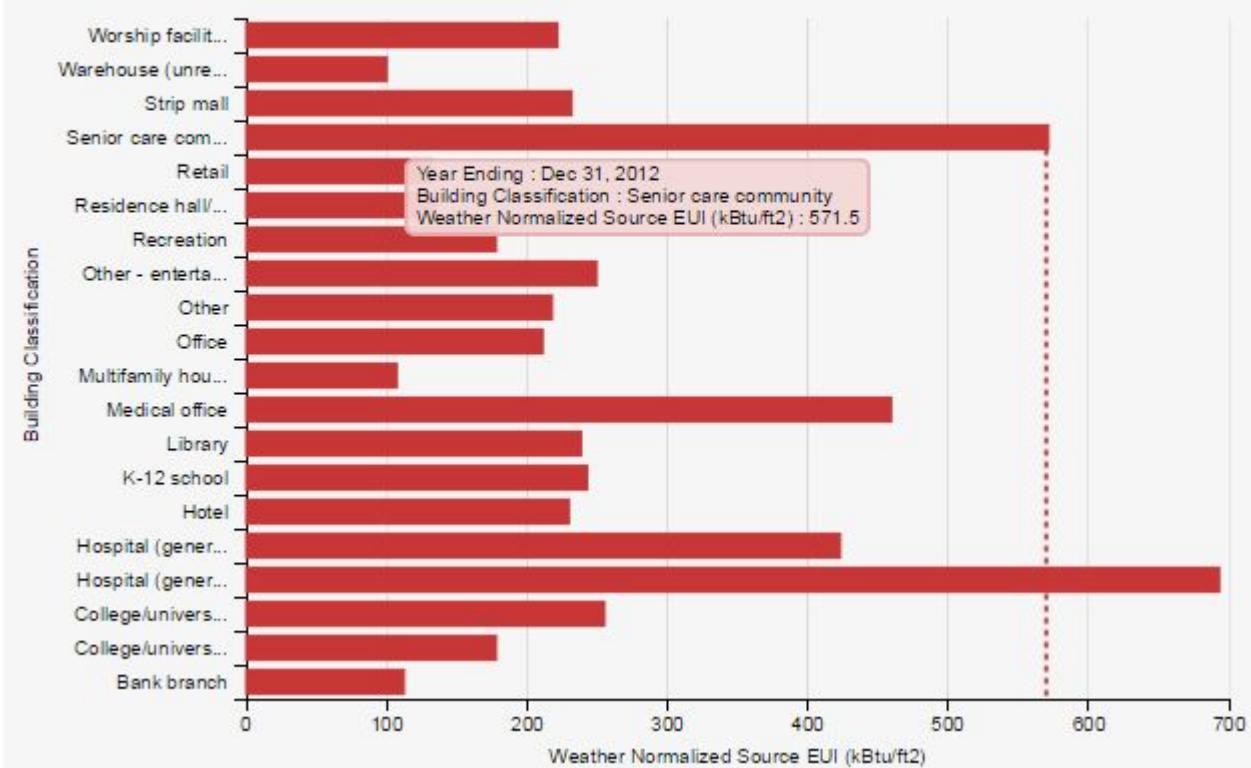
# List View – Reports (cont'd)

Weather Normalized Source Energy Use Intensity vs. Building Classification



Mouse over point to display exact data for that point

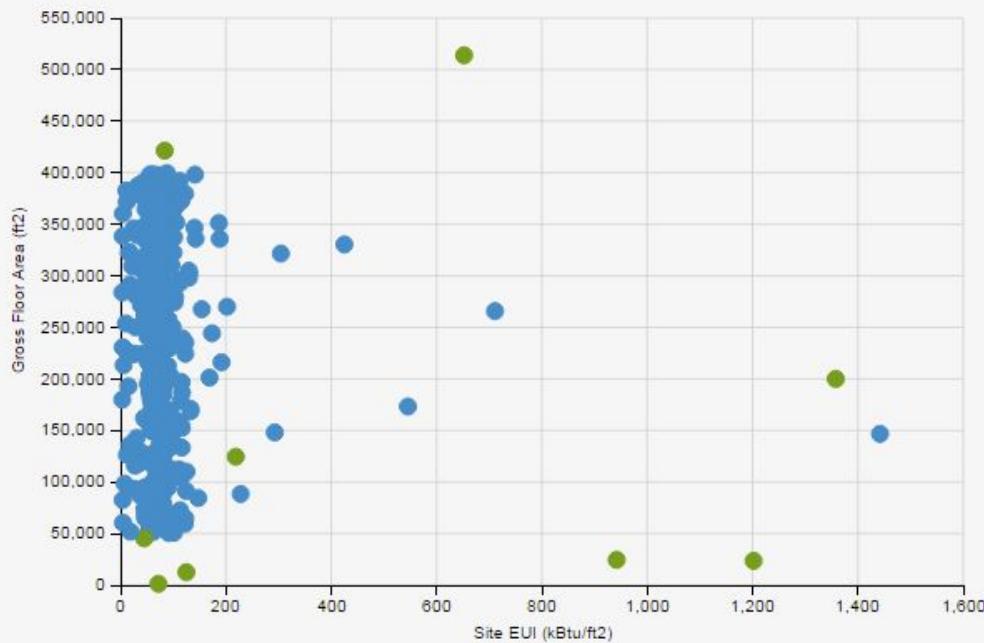
Weather Normalized Source Energy Use Intensity vs. Building Classification (Aggregated)



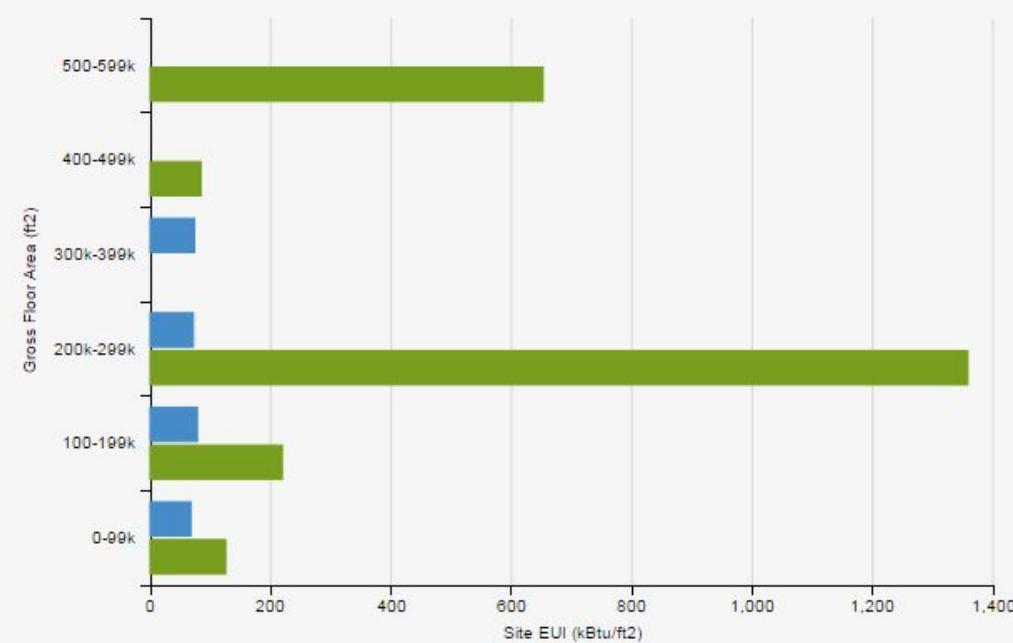
# List View – Reports - Multiple Years of Data

**Multiple years of data  
(based on Cycles)**

Site Energy Use Intensity vs. Gross Floor Area



Site Energy Use Intensity vs. Gross Floor Area (Aggregated)



Year Ending	Properties with Data	Total Properties
● 2016	392	512
● 2017	9	12

Year Ending	Properties with Data	Total Properties
● 2016	392	512
● 2017	9	12

# Labels - List View

You can add pre-defined labels to records in the Inventory List view using the Actions pulldown list

**2 - From the Actions pulldown list, select Add/Remove Labels**

**3 - The Add/Remove Labels dialog box appears. Click the Add button for the label(s) to add**

Cycle:	2018 Compliance Cycle				
Column List Profile:	2018 Compliance Few Fields				
Actions:	<ul style="list-style-type: none"> <li>Select All (15)</li> <li>Select None</li> <li><b>Selected Properties (2 selected)</b></li> <li>Merge</li> <li>Delete</li> <li>Export</li> <li><b>Add/Remove Labels</b></li> <li>Data Quality Check</li> <li>Email</li> <li>Run Analysis (beta)</li> <li>Refresh Metadata</li> <li>Geocode</li> <li>Decode UBID/ULID</li> <li>Update Salesforce</li> </ul>				
View by:	<ul style="list-style-type: none"> <li>+ □</li> </ul>				
Options:	<ul style="list-style-type: none"> <li>Only Show Populated Columns</li> </ul>				
<input checked="" type="checkbox"/>	        3020139	Hilltop Condos	25	Multifamily Housing	513,852.00
<input checked="" type="checkbox"/>	        4828379	Hilltop Offices	55	Office	55,121.00
<input checked="" type="checkbox"/>	        1154623	Hilltop Retail	67	Retail	23,543.00
<input checked="" type="checkbox"/>	        1311528	International House		Residence	482,215.00
<input checked="" type="checkbox"/>	        1311523	Lucky University	23	College/University	23,543.00

Add/Remove Labels

Create new label

Label Name: gray ▾ Show in List  Create label

Add or remove labels from 2 selected properties

DQ: Low or No Site EUI **Add**

DQ: No Custom ID **Add**

DQ: Site EUI Suspect (high or low) **Add**

DQ: Suspect Floor Area **Add**

DQ: Suspect Source EUI (low or high) **Add**

ESPM Data Submitted **Add**

Elm Street **Add**

A 'Remove' button is shown for tags that are already applied to one or more properties in the current selection

**Done** **Cancel**

**1 - Select the records to label**

**4 - Click the Done button and that label (or labels) will be added to the selected records**

# Labels - Adding Labels “on the fly”

View by Property   View by Tax Lot

PM Property ID	Property Type
1311527	College/University
1311523	College/University

**Actions:**

- Select All (2)
- Select None
- Selected Properties (5 selected)**
- Merge
- Delete
- Export
- Add/Remove Labels**
- Data Quality Check
- Email
- Run Analysis (beta)
- Refresh Metadata
- Geocode

**Add/Remove Labels**

Create new label

College/University green ▾

Show in List

Create label

green  
red  
gray  
orange  
light blue  
blue

You can also define labels “on the fly” from the Inventory List view

In the Property or Tax Lot tab

1. Filter a field or fields -- in this example we are filtering on the **Property Type** field for any value with **college** in the name
2. Select all the records by click the checkbox to the left of the column names
3. Click the **Actions** pulldown list
4. Select the **Add/Remove Labels** choice
5. The **Add/Remove Labels** dialog box appears
6. Type the name of the new label in the **Create new label** box and select the color
7. Check the “Show in List” box to see the label in the Inventory List
8. Click the **Create Label** button
9. The new label is added to the list of Labels
10. Click the **Add** button for the label you just created
11. Click the **Done** button to apply the label to the selected records

The label will be added to all the selected records

You can view the labels for each record in the Building Detail view (see next page)

Add or remove labels from 2 selected properties

College/University

Add

Call

Done

Cancel

**Property List View:** a group of properties can be selected and updated manually

Cycle: 2021 Calendar Year

Column List Profile: tt

Actions: ✓

- Select All (3)
- Select None
- Selected Properties (1 selected)
- Merge
- Delete
- Export
- Add/Remove Labels
- Data Quality Check
- Email
- Run Analysis (beta)
- Refresh Metadata
- Geocode
- Decode UBID/ULID
- Update Salesforce**

View

+ ✓

✓

Options

Only Show Populated Columns

**Property Detail:** individual properties can be updated manually

Actions ▾

- Update with BuildingSync
- Update with Audit Template
- Export BuildingSync
- Export BuildingSync (Excel)
- Add/Remove Labels
- Run Analysis (beta)
- Merge and Link Matches
- Update Salesforce**

Only Show Populated Columns

# Detail View - Property & Tax Lot

From the Inventory List view, click the “Information” icon for a record to access the Inventory Detail view.

The screenshot shows the 'View by Property' section of the Inventory List view. It includes a table with columns for 'PM Property ID' and 'Address'. A blue box highlights the 'PM Property ID' column, and a blue box with an 'i' icon highlights the row for PM Property ID 5233255. To the right of the table is a vertical list of actions:

- Update with BuildingSync
- Update with Audit Template
- Export BuildingSync
- Export BuildingSync (Excel)
- Add/Remove Labels
- Run Analysis (beta)
- Unmerge Last** (highlighted in orange)
- Merge and Link Matches
- Only Show Populated Columns

The **Property Detail** view will only show fields and data mapped to the Property table

The **Tax Lot Detail** view will only show fields and data mapped to the Tax Lot table

Links to access associated (paired) Tax Lot record detail views

The screenshot shows the 'Property Detail' view for the property with PM Property ID 5233255. The top navigation bar includes tabs for 'Property Detail', 'Meters', 'Sensors', 'Notes', 'Column List Profiles', 'Cross-Cycles', 'Analyses (beta)', and 'Timeline'. The main content area displays the following information:

- Property : 521 Elm Street**
- Cycle:** 2018 Compliance Cycle
- Labels:** >50000 SF, Compliant
- Detail Column List Profile:** Property Detail Fields
- History of record shown in columns**: A table showing the history of the record across three columns: Field, Main, and History.

Field	Main	History
PM Property ID	5233255	5233255
Property Name	Montessori Day School	Montessori Day School
Address Line 1	521 Elm Street	
Property Type	K-12 School	K-12 School
ENERGY STAR Score	55	
Gross Floor Area (ft <sup>2</sup> )	200,000.00	200,000.00

The screenshot shows the 'Paired Tax Lots' view. It lists three tax lots with their corresponding address line 1 and a 'UNPAIR' link:

TAX LOT ID	ADDRESS LINE 1	UNPAIR
33366555	(no address 1)	X
33366125	(no address 1)	X
33366148	(no address 1)	X

Associated records can be unpaired

# Detail View - Meters: Import GreenButton Data

From the Property Detail view for a record, click the “Upload GreenButton Data” button

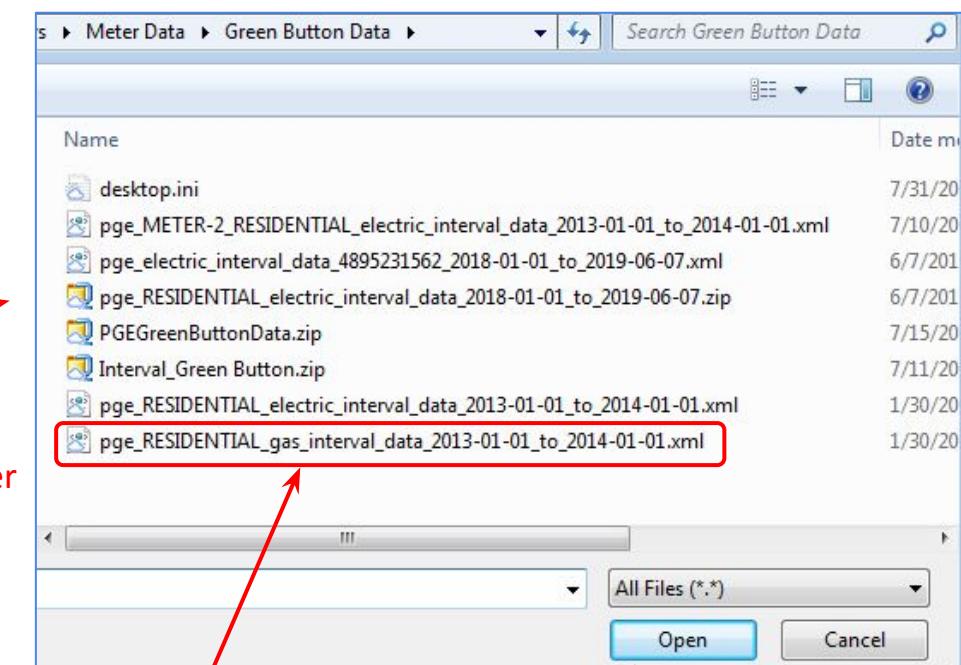
The screenshot shows the 'Property Detail' view for a property record. The 'Meters' tab is selected. The 'Upload GreenButton Data' button is highlighted with a red arrow pointing to it from the text above.

**Step 1:** In the Property Detail view for a given Property record, click the “Upload GreenButton Data” button to start the process, which opens the “Select Data Set” dialog box

**Step 2:** Select the appropriate Dataset name

**Select Data Set**

Name	ESPM Meter Data Testing
<b>Upload File</b>	
Dismiss	



**Step 4:** Select the appropriate file and click Open

# Detail View - Meters: Import GreenButton Data

From the Property Detail view for a record, click the “Upload GreenButton Data” button

Confirm GreenButton File Contents

Meter Reading Counts		
GreenButton UsagePoint	Type	Incoming
4864658	Natural Gas	365

Parsed Energy Types and Units	
Parsed Type	Parsed Unit
Natural Gas	therms

**Confirm**

**Dismiss**

Step 5: SEED displays a dialog box with a summary of the GreenButton data. Review this summary

- Click “Confirm” if you want to continue the upload.
- Click “Dismiss” if you want to cancel the upload.

Step 6: File is uploaded

Uploading File

Uploading pge\_RESIDENTIAL\_gas\_interval\_data\_2013-01-01\_to\_2014-01-01.xml

0% Complete

**Dismiss**

Step 7: Results of upload are displayed

Upload Complete

Meter Reading Counts			
GreenButton Usage...	Type	Incoming	Successfully Import...
4864658	Natural Gas	365	365

**Complete and Refresh Page**

**Dismiss**

Step 8: Click the Complete and Refresh Page button

Step 9: The data is added to the Meter view in Property Detail

Property Detail    **Meters**    Notes    Settings

**Meters**

✓	Type	Alias	Source	Source Id
✓	Electric - Grid	Electric - Grid - GreenButt...	GreenButton	3103471

Step 10: Change the units if needed in Organizations/Settings

**Settings**    **Sharing**

Meter energy display units (change one at a time)

----Choose energy type----

----Change display unit----

# Detail View - Meters (cont'd)

## To see the imported meter data:

Go to the **Inventory** view, **View by Property** tab, select the appropriate **Cycle**, click the **Info icon** to get to the **Property Detail** view, click the **Meters** link

View by Property		View by Tax Lot	
<input type="button" value="+"/>	<input checked="" type="checkbox"/>	<input type="button" value="h"/>	<input type="button" value="PM Property ID ..."/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="h"/>	<input type="button" value="1"/>
<input type="button" value="+"/>	<input checked="" type="checkbox"/>	<input type="button" value="h"/>	<input type="button" value="i"/>
<input type="button" value="+"/>	<input checked="" type="checkbox"/>	<input type="button" value="h"/>	<input type="button" value="3"/>
			<input type="button" value="Gross Floor Area (ft²) ..."/>
			<input type="text" value="1311528"/>
			International House
			482,215.00
			<input type="text" value="1311523"/>
			Lucky University
			23,543.00
			<input type="text" value="5233255"/>
			Montessori Day School
			200,000.00

**Property : 20 Tenth Street**

Interval: Exact

Note: Meters are labeled with the following format: "Type - Source - Source ID".

**Meters**

<input checked="" type="checkbox"/>	Type	Alias	Source	Source Id	Scenario Id	Is Virtual	Scenario Name	Actions
<input checked="" type="checkbox"/>	Cost	Cost - Portfolio Mana...	Portfolio Manager	19368261		false		<input type="button" value="Delete"/>
<input checked="" type="checkbox"/>	Electric - Grid	Electric - Grid - Portf...	Portfolio Manager	19368261		false		<input type="button" value="Delete"/>

**Readings**

<input checked="" type="checkbox"/>	Start Time	End Time	Electric - Grid - Portfolio Manager - 19368261 (kWh (thousand Watt-hours))	Cost - Portfolio Manager - 19368261 (US Dollars) ...
<input checked="" type="checkbox"/>	2018-02-02 00:00:00	2018-02-28 00:00:00	44,000.00	4,975.55
<input checked="" type="checkbox"/>	2018-03-01 00:00:00	2018-03-31 00:00:00	42,880.00	4,915.00
<input checked="" type="checkbox"/>	2018-01-01 00:00:00	2018-02-01 00:00:00	39,520.00	4,342.00

# Detail View - Meters (cont'd)

The program will aggregate data based on the Interval selected.

- **Exact:** Shows the actual data as it was imported from the original source
- **Month:** Aggregates the data by month. If the data spans more than one month, the program cannot display the monthly aggregated data. The one exception is an end time of one month could be the beginning of the next month. For example, August 1 00:00:00 (but not 00:00:01) is an acceptable end time for an entry contained within the month of July.
- **Year:** Aggregates the data across each year of data. Similar to monthly aggregation, yearly aggregation accepts data with an end time of January 1 00:00:00 as part of the previous year.

**Property : 20 Tenth Street**

Interval:

Upload GreenButton Data

Interval:

Exact  
Month  
Year

Note: Meters are labeled with the following format: "Type - Source - Source ID".

Meters									
✓	Type	Alias	Source	Source Id	Scenario Id	Is Virtual	Scenario Name	Actions	
✓	Cost	Cost - Portfolio Mana...	Portfolio Manager	19368261		false		<input type="button" value="Delete"/>	
✓	Electric - Grid	Electric - Grid - Portf...	Portfolio Manager	19368261		false		<input type="button" value="Delete"/>	

**Readings**

✓	Start Time	End Time	Electric - Grid - Portfolio Manager - 19368261 (kWh (thousand Watt-hours))	Cost - Portfolio Manager - 19368261 (US Dollars) ..
✓	2018-02-02 00:00:00	2018-02-28 00:00:00	44,000.00	4,975.55
✓	2018-03-01 00:00:00	2018-03-31 00:00:00	42,880.00	4,915.00
✓	2018-01-01 00:00:00	2018-02-01 00:00:00	39,520.00	4,342.00

# Detail View - Meters (cont'd)

In this case, the monthly data spans more than one month, i.e., 1-11-2014 to 2-10-2015 is defined as one month.

This is shown by setting Interval == Exact

Interval:	Exact	Start Time ▲▼	End Time ▲▼	Electric - Grid - PM - 46643762 (kWh (thousand Watt-hours)) ▲▼	Cost - PM - 46643762 (US Dollars)
		2015-01-11 00:00:00	2015-02-10 00:00:00	116,431.70	8,732.38
		2015-02-10 00:00:00	2015-03-12 00:00:00	122,951.50	9,221.36
		2015-03-12 00:00:00	2015-04-15 00:00:00	122,491.00	9,186.83

Therefore, choosing Interval=Month results in no data being displayed

Interval:	Month	No Data
-----------	-------	---------

*Exception:*

If the data spans more than one month, the program cannot display the monthly aggregated data. The one exception is an end time of one month could be the beginning of the next month. For example, August 1 00:00:00 (but not 00:00:01 is an acceptable end time for an entry contained within the month of July).

When Interval == Year, the program aggregates the data for each year

Year ▾	Electric - Grid - PM - 46643762 (kWh (thousand Watt-hours)) ▾	Cost - PM - 46643762 (US Dollars)
2014	1,449,570.80	108,717.82
2015	1,427,786.70	107,084.02
2016	1,397,457.80	104,809.37
2017	381,000.00	29,390.00

# Detail View - Meters (cont'd)

In this case, the monthly data is fully contained within one month

Interval = Exact

All the data is displayed

Interval: Exact

Start Time	End Time	Natural Gas - PM - 46643764 (kBtu (thousand Btu))	Cost - PM - 46643764 (US Dollars)
2014-01-01 00:00:00	2014-01-31 00:00:00	406,140.00	3,533.42
2015-01-01 00:00:00	2015-01-31 00:00:00	383,580.00	3,337.15
2015-02-01 00:00:00	2015-02-28 00:00:00	541,520.00	4,711.22
2015-03-01 00:00:00	2015-03-31 00:00:00	372,300.00	3,239.01

Interval = Month

Data is aggregated by month

Interval:

Month

Month	Natural Gas - PM - 46643764 (kBtu (thousand Btu))	Cost - PM - 46643764 (US Dollars)
January 2014	406,140.00	3,533.42
February 2014	564,090.00	4,907.58
March 2014	394,860.00	3,435.28
April 2014	180,510.00	1,570.44
May 2014	5,640.00	49.07

Exception:

If the data spans more than one month, the program cannot display the monthly aggregated data. The one exception is an end time of one month could be the beginning of the next month. For example, August 1 00:00:00 (but not 00:00:01) is an acceptable end time for an entry contained within the month of July.

Interval = Year

Data is aggregated by year

Interval:

Year

Year	Natural Gas - PM - 46643764 (kBtu (thousand Btu))	Cost - PM - 46643764 (US Dollars)
2014	2,309,610.00	20,093.62
2015	2,031,110.00	17,670.66
2016	1,965,360.00	17,098.63
2017	1,090,000.00	8,910.00

# Detail View - Notes

[Properties](#)

## Property Detail Notes

- [Property Detail](#)
- [Meters](#)
- [Notes](#)
- [Column List Profiles](#)
- [Cross-Cycles](#)
- [Anal](#)

**Property : (address\_line\_1 is blank) ?**

[New Note](#)

Created	Type	Name	Text
02/13/2022 06:37:28 PM	Note	Manually Created	Need to contact owner that the account is not complete

### Add New Note

**Note**

Contact is Joyce Wise: 511-293-3929

Property and Tax Lot details each have their own notes

[Cancel](#) [Add Note](#)

[Properties](#)

## Property Detail Notes

- [Property Detail](#)
- [Meters](#)
- [Notes](#)
- [Settings](#)

**Property : 12 Ninth Street**

[New Note](#)

Created	Type	Name	Text
08/05/2019 02:54:29 PM	Note	Manually Created	Contact is Joyce Wise: 511-293-3929
08/05/2019 02:52:09 PM	Note	Manually Created	Need to get back to owner that the account is not complete

Icon indicates Notes (Inventory List)



PM Property ID
22178849
22178844

When unmerging a record that contains notes, the notes are duplicated to each new record with the original timestamps preserved.

When merging records that contain notes, the notes are combined into the new record with the original timestamps preserved. If exact note duplicates exist (for instance, from unmerging a record prior to re-merging) the exact duplicates are de-duplicated.

# Detail View - Column List Profiles

Click Column List Profiles from either **Property** or **Tax Lot Detail** view to set the visibility and order properties for fields.

**Tax Lot Detail Settings** will only contain fields and data from the **Tax Lot** table

**Property Detail Settings** will only contain fields and data from the **Property** table

Enter values to search the list of fields, then “check” the ones you want to display

	Column Name
<input checked="" type="checkbox"/>	city
<input checked="" type="checkbox"/>	City (Property)
<input checked="" type="checkbox"/>	City (Tax Lot) <span style="background-color: #e0e0e0; border-radius: 50%; padding: 2px;">tax lot</span>
<input checked="" type="checkbox"/>	Owner City/State

Check the fields to display, uncheck them to prevent them from displaying, in the Detail view

Drag fields up and down to set the order

**Properties**      **Property Detail**

Property Detail    Meters    Sensors    Notes    Column List Profiles    Cross-Cycles    Analyses (beta)    Timeline

**Column Order/Visibility**    Detail Column List Profile: Detailed Profile View ▼ ✓ ↳ ✗ ✎

**There are 138 columns of data available to you.**  
Select columns from the list below to make them appear in your Properties Detail table. Drag the rows to change the order in which they appear.

	Column Name
<input checked="" type="checkbox"/>	PM Property ID
<input checked="" type="checkbox"/>	Property Name
<input checked="" type="checkbox"/>	Address Line 1
<input checked="" type="checkbox"/>	City
<input checked="" type="checkbox"/>	Gross Floor Area (ft <sup>2</sup> )

# Detail View - Column List Profiles (cont'd)

In all the Detail View (for both Property and Tax Lot views) the “Column List Profiles” allows the currently highlighted fields to be saved to a name, which then appears in a pulldown list. This allows different sets of fields to be saved to different profiles.

To edit an existing Detail Settings Profile, or to make a new one, click the Settings link on either the Property or Tax Lot Detail View

The screenshot shows the 'Property Detail' view with the 'Column List Profiles' tab selected. The interface includes a toolbar with 'Rename', 'New', 'Save', and 'Delete' buttons, and a dropdown menu for 'Detailed Profile View'. Below the toolbar is a section titled 'Column Order/Visibility' with a note about 138 available columns. A list of columns is shown with checkboxes next to each field name. A red arrow points to the 'Property Name' checkbox with the text 'Check new fields you want to add to the List Settings Profile' and 'Uncheck fields you want to remove from the List Settings Profile'.

Column Name
PM Property ID
Property Name
Address Line 1
City
Gross Floor Area (ft <sup>2</sup> )

Click **Save** to save the changes to the current **List Setting Profile**

Click **New** to save the newly selected fields to a new **List Settings Profile**

# Detail View - Edit the Main Record



From the **Inventory List** view, click the “**Information**” icon for a record to access the **Inventory Detail** view.

< Properties

## Property Detail

Property Detail   Meters   Sensors   Notes   Column List Profiles   Cross-Cycles   Analyses (beta)   Timeline

**Property : 20 Tenth Street**

Save Changes

Cancel

Actions ▾

Cycle: 2018 Compliance Cycle

Labels: >50000 SF Compliant Energy Star Score > 25

Detail Column List Profile: Property Detail Fields

Edit

Step 1: Click **Edit** to change the information in the **Main** column.

This will put you in “Edit” mode

Step 2: To Edit Data:  
Click on the data in the **Main** column and edit it directly

Field	Main	
PM Property ID	1311525	1311525
Property Name	Biology Hall	Biology Hall
Address Line 1	20 Tenth Street	
Property Type	Laboratory	Laboratory
ENERGY STAR Score	56	56
Gross Floor Area (ft <sup>2</sup> )	530000	421,351.00

Field	Main
PM Property ID	1311525
Property Name	Biology Hall
Address Line 1	20 Tenth Street
Property Type	Laboratory
ENERGY STAR Score	56
Gross Floor Area (ft <sup>2</sup> )	530,000.00

Step 4: The **Main** column is now updated with the changes

# Detail View: Timeline

A new feature has been added called Timeline, to show important “events” that happen on a property

The screenshot shows a top navigation bar with the title "Property Detail". Below the title is a horizontal menu bar containing the following items: "Property Detail", "Meters", "Sensors", "Notes", "Column List Profiles", "Cross-Cycles", "Analyses (beta)", and "Timeline". The "Timeline" button is highlighted with a red rectangular border.

**There is a row in the Timeline for every event**

**Events added to the Timeline are**

- New Notes (added manually)
- New Analyses
- New Audit Template or BuildingSync file upload

# Detail View: Timeline (cont'd)

Clicking the Timeline link for a property will show all the actions across cycles

Properties Property Detail

[Property Detail](#) [Meters](#) [Sensors](#) [Notes](#) [Column List Profiles](#) [Cross-Cycles](#) [Analyses \(beta\)](#) [Timeline](#)

Property : Medstar POB North Tower

Event Selection

- Select All
- Notes
- Analyses
- AT Uploads

← Filter the events as needed

Expand All Sort By: Newest to Oldest Cycles

Cycle	Count
2023	1
2022	1
2021	3

2023

2023-03-29 Alex Chapin Note

2022

2023-03-29 Alex Chapin Note

2021

Analyses: 2 Audit Template Files: 1

2023-03-29 Alex Chapin Analysis BETTER

2023-03-29 Alex Chapin Analysis BETTER

2023-03-29 Audit Template File

# Detail View: Timeline (cont'd)

Clicking the Timeline link for a property will show all the actions across cycles

Sort options

Click this button to expand all the events at once

Details for Note events

Expand an event to see the details

Results for a BETTER analysis

Timeline Details														
Event Date		User		Status										
<b>2023</b>														
2023-03-29		Alex Chapin		<input type="checkbox"/> Notes: 1										
Updated 2022-08-31				Note										
<b>2022</b>														
2023-03-29		Alex Chapin		<input type="checkbox"/> Notes: 1										
<b>2021</b>														
2023-03-29		Alex Chapin		<input type="checkbox"/> Analyses: 2 <input type="checkbox"/> Audit Template Files: 1										
<table border="1"> <thead> <tr> <th>Name</th> <th>Service</th> <th>Created</th> <th>Run Duration</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Better second try</td> <td>BETTER</td> <td>2023-01-12</td> <td></td> <td>Failed</td> </tr> </tbody> </table>					Name	Service	Created	Run Duration	Status	Better second try	BETTER	2023-01-12		Failed
Name	Service	Created	Run Duration	Status										
Better second try	BETTER	2023-01-12		Failed										
<b>Better second try</b> Run #7137 Failed Meter Selection: All 0 Full Analysis														
<b>2023-03-29</b>														
2023-03-29		Alex Chapin		Analysis										
2023-03-29				BETTER										
				Audit Template File										

# Detail View: Timeline (cont'd)

## Audit Template event

Expanding the Audit Template upload show the scenarios from the file

2023-03-29

Audit Template File					
Scenarios	Electricity savings (kBtu)	Peak electricity reduction (kW)	Natural gas savings (kBtu)	Status of Measures	
➤ Audit Template Energy Meter Readings - Natural gas	⚡ N/A	⬇️ N/A	🔥 N/A		
➤ Audit Template Energy Meter Readings - Electricity	⚡ N/A	⬇️ N/A	🔥 N/A		
➤ Install timer on exhaust fans	⚡ 14,704	⬇️ 0	🔥 1,874	1 Proposed	
➤ Hydronic Pump VFD Upgrade	⚡ 177,384	⬇️ 3	🔥 0	3 Proposed	
➤ Low-flow water fixtures	⚡ 0	⬇️ 0	🔥 53	1 Proposed	
➤ Air Sealing	⚡ 0	⬇️ 0	🔥 15,066	2 Proposed	
➤ Garage fan CO sensor	⚡ 13,615	⬇️ 0	🔥 3,410	1 Proposed	
➤ Optimize heating and cooling	⚡ 0	⬇️ 0	🔥 33,214	2 Proposed	

# Detail View: Timeline (cont'd)

## Audit Template event

Expand the Scenarios to see the individual measures

2021		Analyses: 2		Audit Template Files: 1	
> 2023-03-29		Alex Chapin		Analysis	
> 2023-03-29		Alex Chapin		Analysis	
2023-03-29					Audit Template File
Scenarios		Electricity savings (kBtu)		Peak electricity reduction (kW)	
> Audit Template Energy Meter Readings - Natural gas		⚡ N/A		⬇️ N/A	gas N/A
> Audit Template Energy Meter Readings - Electricity		⚡ N/A		⬇️ N/A	gas N/A
▼ Install timer on exhaust fans		⚡ 14,704		⬇️ 0	gas 1,874 1 Proposed
MEASURES					
Category	Name	Recommend.	Status	Category Aff.	Cost Installat..
Building Aut...	Add or upgra...	true	Proposed	Fan	
					400
					15
▼ Hydronic Pump VFD Upgrade					gas 0 3 Proposed
MEASURES					
Category	Name	Recommend.	Status	Category Aff.	Cost Installat..
Electric Moto...	Add VSD mot...	true	Proposed	Motor	
					20746
					15
Electric Moto...	Add VSD mot...	true	Proposed	Motor	
					37992
					15
Electric Moto...	Add VSD mot...	true	Proposed	Motor	
					17246
					15

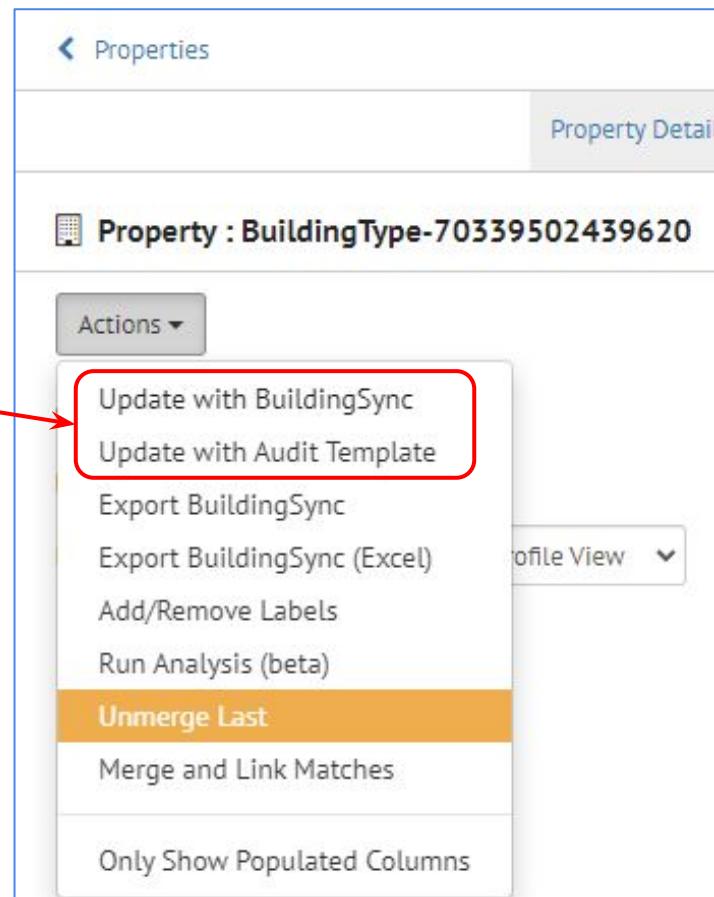
# Detail View: Audit Template Files

## In the Property Detail View:

Audit Template and BuildingSync files can be imported

Import either Audit Template files or BuildingSync files

The Scenarios and Measures from the imported file will be displayed at the bottom of the Property Detail page



FILE TYPE	FILE NAME	CREATED
BuildingSync	BPS_Sample_AT_11911.xml	2022-10-18 8:01 AM

**Scenarios & Measures**

**Expand All**

**2021**

**> Audit Date: Upload Date: 2022-10-18**

# Detail View: Audit Template Files (cont'd)

**Property Detail View:** it is possible to delete scenarios from imported Audit Template files

<b>Building Files (Main State Only)</b>					
FILE TYPE	FILE NAME	CREATED			
BuildingSync	BPS_Sample_AT_11911.xml	2022-10-18 8:01 AM			
<b>Scenarios &amp; Measures</b> <span>Expand All</span>					
<b>2021</b>					
	Audit Date: <span>2022-10-18</span>	Upload Date: 2022-10-18			
ACTIONS	SCENARIOS	ELECTRICITY SAVINGS (KBTU)	PEAK ELECTRICITY REDUCTION (KW)	NATURAL GAS SAVINGS (KBTU)	STATUS OF MEASURES
<span>X</span>	➤ Install timer on exhaust fans	⚡ 14,704	⬇ 0	gas 1,874	1 Proposed
<span>X</span>	➤ Hydronic Pump VFD Upgrade	⚡ 177,384	⬇ 3	gas 0	3 Proposed
<span>X</span>	➤ Low-flow water fixtures	⚡ 0	⬇ 0	gas 53	1 Proposed
<span>X</span>	➤ Air Sealing	⚡ 0	⬇ 0	gas 15,066	2 Proposed
<span>X</span>	➤ Garage fan CO sensor	⚡ 13,615	⬇ 0	gas 3,410	1 Proposed
<span>X</span>	➤ Optimize heating and cooling	⚡ 0	⬇ 0	gas 33,214	2 Proposed

Delete unneeded scenarios if desired

# Export Data -- 2 Options

There are 2 options for exporting data. Both options open the Export data dialog box

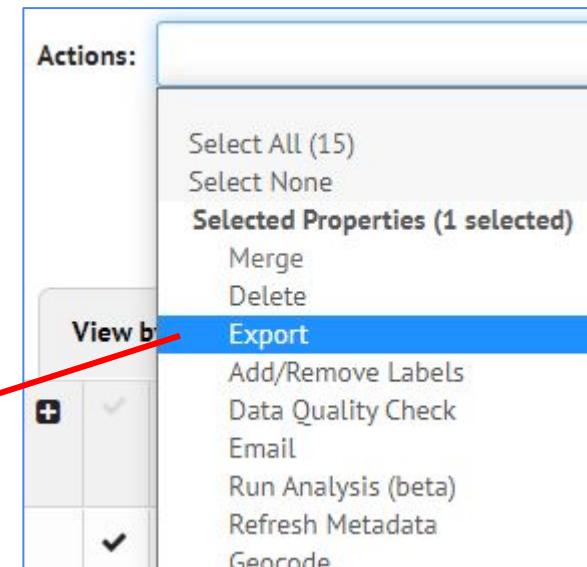
## Option 1: Export options from the “Hamburger” menu

- Exports all the data



## Option 2: Export Selected from the Actions pulldown

- Exports the data that is checked in the Inventory list



Export your Properties and Tax Lots

### Export Name

2022 Records

### Include Notes



### CSV - Include Label Header



### GeoJSON - Include Meter Readings (only recommended if exporting a few buildings)



Export CSV

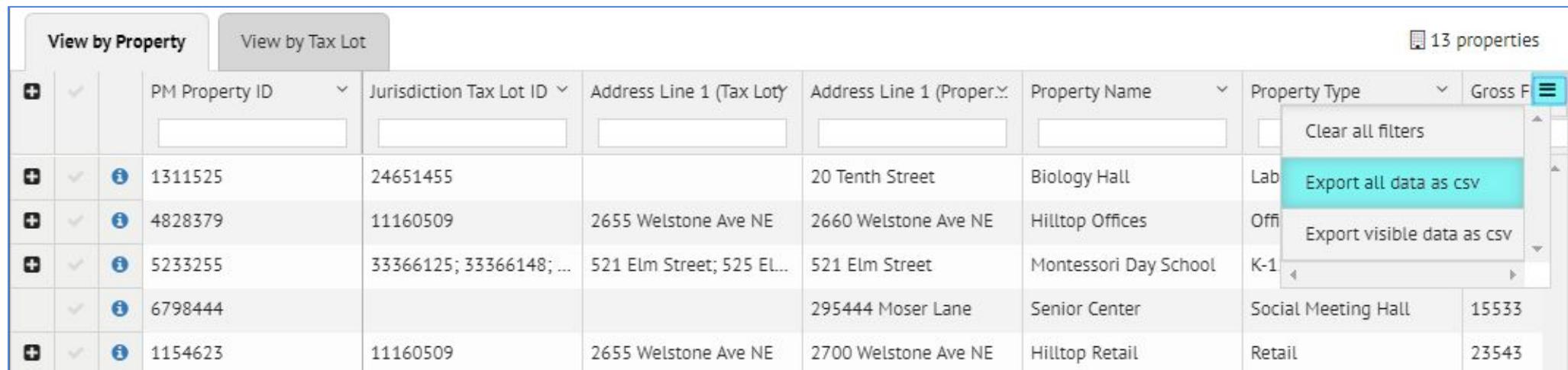
Export BuildingSync in Excel format

Export GeoJSON

# Export Data -- Option 1a

## Option 1a: Export all data as csv

- Exported data is “expanded” whether Inventory List is in “collapsed” or “expanded” view
- All records exported
- All fields set in List Settings exported

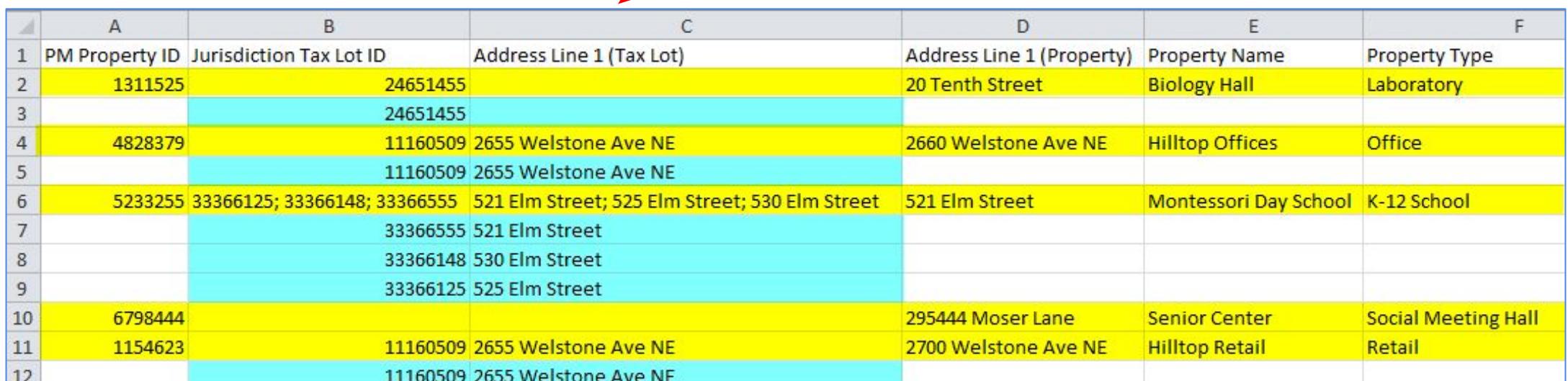


The screenshot shows a table interface for managing properties. The columns include PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Address Line 1 (Property), Property Name, Property Type, and Gross F. A context menu is open at the bottom right, showing options like 'Clear all filters' and 'Export all data as csv' (which is highlighted in blue). A red arrow points from the text below to this menu.

View by Property		View by Tax Lot					13 properties
		PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1311525	24651455		20 Tenth Street	Biology Hall	Lab
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4828379	11160509	2655 Welstone Ave NE	2660 Welstone Ave NE	Hilltop Offices	Offi
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5233255	33366125; 33366148; ...	521 Elm Street; 525 EL...	521 Elm Street	Montessori Day School	K-1
	<input checked="" type="checkbox"/>	6798444			295444 Moser Lane	Senior Center	Social Meeting Hall
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1154623	11160509	2655 Welstone Ave NE	2700 Welstone Ave NE	Hilltop Retail	Retail

The Inventory List can be in “collapsed” or “expanded” view

The export will always be “expanded”, i.e., showing all the records including the associated records from the other table (Tax Lot or Property)

The screenshot shows a CSV file with the following data:

	A	B	C	D	E	F
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type
2	1311525	24651455		20 Tenth Street	Biology Hall	Laboratory
3		24651455				
4	4828379	11160509	2655 Welstone Ave NE	2660 Welstone Ave NE	Hilltop Offices	Office
5		11160509	2655 Welstone Ave NE			
6	5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	521 Elm Street	Montessori Day School	K-12 School
7		33366555	521 Elm Street			
8		33366148	530 Elm Street			
9		33366125	525 Elm Street			
10	6798444			295444 Moser Lane	Senior Center	Social Meeting Hall
11	1154623	11160509	2655 Welstone Ave NE	2700 Welstone Ave NE	Hilltop Retail	Retail
12		11160509	2655 Welstone Ave NE			

# Export Data -- Option 1b -- collapsed

## Option 1b: Export visible data as csv

- Exported data is in same form as Inventory List (in the example below, both are “collapsed”)
- All records exported
- All fields set in List Settings exported

		View by Property		View by Tax Lot						
		PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Fl		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Fl	<input type="button" value="Clear all filters"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory		<input type="button" value="Export all data as csv"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office		<input type="button" value="Export visible data as csv"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School		<input type="button" value=""/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6798444			Senior Center	295444 Moser Lane	Social Meeting Hall	15533		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1154623	11160509	2655 Welstone Ave NE	Hilltop Retail	2700 Welstone Ave NE	Retail		23543	



Collapsed view in Inventory List (13 Property records)

Collapsed records in export (13 records)

	A	B	C	D	E	F
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type
2	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory
3	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office
4	5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School
5	6798444			Senior Center	295444 Moser Lane	Social Meeting Hall
6	1154623	11160509	2655 Welstone Ave NE	Hilltop Retail	2700 Welstone Ave NE	Retail
7	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	East Computing Hall	93029 Wellington Blvd	College/University
8	1311528	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	International House	93031 Wellington Blvd	Residence
9	1311524	24651456	11 Ninth Street	Grange Hall	12 Ninth Street	Performing Arts
10	1311526	24651456	11 Ninth Street	Rowling Gym	35 Tenth Street	Fitness Center/Health Club
11	1311523	24651456	11 Ninth Street	Lucky University	11 Ninth Street	College/University
12	2264	1552813	050 Willow Ave SE	University Inn	50 Willow Ave SE	Hotel
13	6798215			City Library	295302 Moser Lane	Library
14	3020139	11160509	2655 Welstone Ave NE	Hilltop Condos	2655 Welstone Ave NE	Multifamily Housing

# Export Data -- Option 1b -- expanded

**Option 1b:** Export visible data as csv

- Exported data is in same form as Inventory List (in the example below, both are “expanded”)
- All records exported
- All fields set in List Settings exported

The screenshot shows a SharePoint list titled "View by Property". The columns include PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Address Line 1 (Property), Property Name, Property Type, and Gross F. A context menu is open on the far right, showing options like "Clear all filters", "Export all data as csv", and "Export visible data as csv". The "Export visible data as csv" option is highlighted.

	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Address Line 1 (Property)	Property Name	Property Type	Gross F
1	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	93029 Wellington Blvd	East Computing Hall	College	<a href="#">Clear all filters</a>
2		13334485	93029 Wellington Blvd				<a href="#">Export all data as csv</a>
3		23810533	94000 Wellington Blvd				<a href="#">Export visible data as csv</a>
4	1311523	24651456	11 Ninth Street	11 Ninth Street	Lucky University	College/University	
5		24651456	11 Ninth Street				

Expanded view in Inventory List  
Expanded records in export

All records are exported with their associated records;  
in this case, all 13 Property records are exported with  
separate lines for their associated Tax Lot records

The screenshot shows an Excel spreadsheet titled "LBNL 302 Property Data.csv - Microsoft Excel". The data is organized into columns A through F. The first row contains column headers: PM Property ID, Jurisdiction Tax Lot ID, Address Line 1 (Tax Lot), Property Name, Address Line 1 (Property), and Property Type. The subsequent rows show the data for each property, including its associated tax lots and addresses.

	A	B	C	D	E	F
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type
2	1311527	13334485; 23810533	93029 Wellington Blvd; 94000 Wellington Blvd	East Computing Hall	93029 Wellington Blvd	College/University
3		13334485	93029 Wellington Blvd			
4		23810533	94000 Wellington Blvd			
5	1311523	24651456	11 Ninth Street	Lucky University	11 Ninth Street	College/University
6		24651456	11 Ninth Street			

# Export Data -- Option 1c

## Option 1c: Export selected data as csv

- Exported data is “collapsed” whether Inventory List is in “collapsed” or “expanded” view
- Selected (checked) records are exported
- All fields set in the Inventory List view List Settings are exported

All selected (checked) records are exported (3 in this example)

Multiple values in matching fields are included (in this case the Jurisdiction Tax Lot ID and Address Line 1 Tax Lot fields)

PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID
1311525	24651455	20 Tenth Street	Biology Hall		Laboratory	421351	11
4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3
5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5
6798444				295444 Moser Lane	Senior Center		

A	B	C	D	E	F	G	H
PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID
1311525	24651455	20 Tenth Street	Biology Hall		Laboratory	421351	11
4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3
5233255	33366125; 33366148; 33366555	521 Elm Street; 525 Elm Street; 530 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5
6798444							

All fields set in List Settings (and visible in the Inventory List view) are exported

# Export Data -- Option 2

## Option 2: Export Selected

- Exported data is “collapsed” whether Inventory List is in “collapsed” or “expanded” view
- Selected (checked) records are exported
- All fields set in the Inventory List view List Settings are exported
- Pro
  - You can specify the name and location of the exported file
- Con
  - **BUG:** If there are multiple associated values in any matching fields (such as Jurisdiction Tax Lot ID, UBID, etc) only one value will be exported (*this will be fixed in future versions*)
    - If you don’t have multiple values in a matching field or you don’t want to export those fields, you can use this option

Records with single values in the matching fields (in this case Jurisdiction Tax Lot ID and Address Line 1 Tax Lot) are exported properly

Records with multiple values in the matching fields (in this case Jurisdiction Tax Lot ID and Address Line 1 Tax Lot) are **NOT** exported properly -- only one of the values is exported

	B	C	D	E	F	G	H	I	
1	PM Property ID	Jurisdiction Tax Lot ID	Address Line 1 (Tax Lot)	Property Name	Address Line 1 (Property)	Property Type	Gross Floor Area	UBID	Property Lab
2	1311525	24651455		Biology Hall	20 Tenth Street	Laboratory	421351	11	> 50,000 SF
3	4828379	11160509	2655 Welstone Ave NE	Hilltop Offices	2660 Welstone Ave NE	Office	55121	3	> 50,000 SF
4	5233255	33366555	521 Elm Street	Montessori Day School	521 Elm Street	K-12 School	200000	5	> 50,000 SF

# Overview

- Every account holder belongs to an Organization
- Most SEED users will only have a Parent Organization

Organizations				
Organizations I Manage				
ORGANIZATION				
<b>LBNL 20</b>				Number of records for <b>Properties</b> and <b>Tax Lots</b> for each <b>Cycle</b> , by <b>Organization</b>
Sub-Organizations				
◀				
Organizations I Belong To				
ORGANIZATION NAME	NUMBER OF PROPERTIES	NUMBER OF TAX LOTS	YOUR ROLE	ORGANIZATION OWNER(S)
LBNL 20	2017 Compliance: 12	2017 Compliance: 10	owner	Robin LBNL 20

- SEED is structured to allow a Parent Organization to have Sub-Organizations

Organizations				
Organizations I Manage				
ORGANIZATION				
lbnl				There is a Parent Organization
Sub-Organizations				
LBL 1				
LBL 2				
LBL 3				
LBL 4				

Role can be:

- Owner
- Member
- Viewer

There is a Parent Organization

There can also optionally be Sub-Organizations

**Organizations I Manage**

ORGANIZATION

BPS Test

Sub-Organizations

**Organizations I Belong To**

ORGANIZATION NAME

BPS Test

**BPS Test**

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels **Members** Program Setup Settings Sharing Sub-Organizations

- Click on an organization in either
  - Organizations I Manage
  - Or
  - Organizations I Belong To
- The view for that organization will be displayed

Organization Name

- The links from this view are
  - **Column Settings:** Change the names of the fields in the existing data
  - **Column Mappings:** Manage the mappings for new fields being imported
  - **Cycles:** The Admin screen for managing Cycles
  - **Data Quality:** The Admin screen for managing Data Quality settings
  - **Derived Columns:** Allows definition of a new column derived from existing columns
  - **Email Templates:** Allows setup of an email template
  - **Labels:** The Admin screen for managing Labels
  - **Members:** A list of all members of this organization
  - **Program Setup:** Settings for the Insight Feature
  - **Settings:** The Admin screen for organization settings
  - **Sharing:** The Admin screen for managing how data is shared
  - **Sub-Organizations:** A list of all sub-organizations related to this organization

# Column Settings

This screen shows the settings for the columns (fields) in the database. Changes to the settings here affect the existing data. For example, if the Display Name is changed, it will affect the field “display” name that is shown in the Inventory List and Detail screens for existing data.

Column Settings   Column Mappings   Cycles   Data Quality   Derived Columns   Email Templates   Labels   Members   Program Setup   Settings   Sharing   Sub-Organizations

## Column Settings

The top of the page shows the Help information

Save Changes

Create Column

Collapse Help

← This Help text can be collapsed if desired

### Modifying Column Settings

From the table below, you may modify the columns in the following ways:

- |                           |   |
|---------------------------|---|
| <b>Display Name</b>       | <ul style="list-style-type: none"><li>Change the display name (that appears throughout the program) of a column. This is user-defined and can be any value (?)</li></ul>  |
| <b>Column Name</b>        | <ul style="list-style-type: none"><li>Specifies the underlying field name represented by the Display Name. These field names are not user defined, but are generated from imported user files as well as program-defined fields.</li><li>Note, geocoding requires at least 1 column is used and populated to construct full addresses.</li></ul>  |
| <b>Column Description</b> | <ul style="list-style-type: none"><li>Provides a description of the column to assist in remembering the meaning of the column. This defaults to the display name if available, otherwise the column name is utilized.</li></ul>   |
| <b>Geocoding Order</b>    | <ul style="list-style-type: none"><li>Check the appropriate fields, as well as their order for the program to concatenate a full address, which SEED will use to generate latitude and longitude values for each record</li><li>Note, geocoding requires at least 1 column is used and populated to construct full addresses.</li></ul>   |
| <b>Rename</b>             | <ul style="list-style-type: none"><li>Rename allows users to change the name of the underlying field shown in Column Name / Field Name. Renaming a field means that field will be changed in all the data for the organization.</li></ul>   |
| <b>Data Type</b>          | <ul style="list-style-type: none"><li>For “extra data” fields, this allows the user to set the type, such as Text, Number, Date, etc.</li></ul>   |
| <b>Merge Protection</b>   | <ul style="list-style-type: none"><li>Normally when an imported record is merged into another record the newest value overwrites an older one. Merge protection prevents this, and is particularly useful for columns where you have manually edited values that you want to persist even after importing and merging new data.</li></ul>   |
| <b>Recognize Empty</b>    | <ul style="list-style-type: none"><li>Checking this box for a field will affect how empty or blank values are treated during merges. Specifically, empty values will be able to replace non-empty values per the “Merge Protection” setting.</li></ul>  |
| <b>Match Criteria</b>     | <ul style="list-style-type: none"><li>Checking this box for a field will allow it to be used as a matching field.</li><li><b>Warning: If matching criteria changes are proposed, a preview will be loaded. The load times for this preview depend on how many records belong to this organization and how many of those records would be merged together given the new matching criteria.</b></li></ul> |
| <b>Delete</b>             | <ul style="list-style-type: none"><li>Permanently delete extra_data columns and all associated data</li></ul>   |

# Column Settings (cont'd)

Internal database field name

The checked fields are used for Geocoding

The checked fields will not be changed during record merging

The checked fields determine the record matching

View by Property		View by Tax Lot		COLUMN DESCRIPTION	GEOCODING ORDER	RENAME	DATA TYPE	MERGE PROTECTION	RECOGNIZE EMPTY	MATCH CRITERIA	DELETE
DISPLAY NAME	COLUMN NAME										
Search display	Search column name										
PM Property	pm_property_id	PM Property ID			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Custom ID 1	custom_id_1	Custom ID 1			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM Parent Pr	pm_parent_property_id	PM Parent Property ID			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jurisdiction P	jurisdiction_property_id	Jurisdiction Property ID			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UBID	ubid	UBID			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Audit Templa	audit_template_building_id	Audit Template Building ID			<input type="checkbox"/>	<input type="button" value="▼"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address Line	address_line_1	Address Line 1			<input checked="" type="checkbox"/>	<input type="button" value="1"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address Line	address_line_2	Address Line 2			<input checked="" type="checkbox"/>	<input type="button" value="2"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
City	city	City			<input checked="" type="checkbox"/>	<input type="button" value="3"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State	state	State			<input checked="" type="checkbox"/>	<input type="button" value="4"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Postal Code	postal_code	Postal Code			<input checked="" type="checkbox"/>	<input type="button" value="5"/>	Rename	<input type="button" value="Text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Column Mappings

Column Mappings are used to set the fields when importing a file.

This view allows the user to define several column mappings depending on the file being imported.

Click on the **Column Mappings** link

Column Mappings Help screen at the top of the page

Download to CSV

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

## Column Mappings

Column mapping profiles can help you standardize and simplify your file import mapping process.

Create mappings to specific Data File header values - mapping SEED headers, Inventory Types, and if applicable, Measurement Units.

SEED header values can be manually typed. As you type, a list of suggestions will appear if the value is similar to a column that SEED already recognizes.

Also, you can copy Data File header values directly over to SEED headers via the button below.

Alternatively, you can get SEED header suggestions based on existing column names using the other button below.

You can create mapping rows for a profile by adding them individually or by copying Data File header values in a comma-delimited list by using the input box on the right.

**When using a profile for an incoming file, Data File header values must match exactly in order for the mappings to be prepopulated.**

Rename

Download to CSV

Column Mapping Profile:

Portfolio Manager Defaults



Save

Delete

New

Duplicate

-- if fields are marked as duplicates they need to be resolved to have different names.

<File Column 1>,<File Column 2>,<File Column 3>,...

It is possible to define the field names and order by typing field names in this box

Copy into Data File Headers

# Column Mappings (cont'd)

This screen allows users to define different Column Mapping Profiles for different files being imported

[Copy Data File Headers directly to SEED Headers](#)

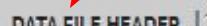
[Populate SEED Headers with best known matches](#)

Click the “Delete All Mappings” button to delete the existing mappings

SEED		2020 Portfolio Manager Fields		
INVENTORY TYPE	SEED HEADER	MEASUREMENT UNITS	DATA FILE HEADER	<a href="#">Delete All Mappings</a>
Property	PM Property ID		Property ID	
Property	Parent Property ID		Parent Property ID	
Property	Property Name		Property Name	
Property	Address 1		Address 1	
Property	City		City	
Tax Lot	Rust Parcel ID		Rust Parcel ID	
Property	Property Type		Property Type	
Property	Gross Floor Area	square feet	Gross Floor Area	

The field “Mapping”, i.e., the field name displayed in the SEED screens

Field name in the file being imported



# Column Mappings (cont'd)

A Column Mapping Profile can have multiple fields defined to be mapped to the same field in SEED. This can be useful when importing different files with different fields representing the same data

**SEED**

Set all fields to: **Property** **Mapped Fields**

INVENTORY TYPE	SEED HEADER ↑	MEASUREMENT UNITS	DATA FILE HEADER ↑	Delete All Mappings
Property	Address Line 1		Address 1	
Property	Address Line 1		address1	
Property	Address Line 1		Street Address	
Property	Address Line 2		Address 2	
Property	Address Line 2		address2	
Property	Address Line 2		Street Address 2	
Property	Building Count		How Many Buildings?	
Property	City		city	
Property	City		City	
Property	City		City/Municipality	

Click the “Delete All Mappings” button to delete the existing mappings

These three different field names in an input file are all mapped to the same field, **Address Line 1**, in SEED

These three different field names in an input file are all mapped to the same field, **Address Line 2**, in SEED

These three different field names in an input file are all mapped to the same field, **City**, in SEED

## Manage Cycles

- Create Date “cycles” such as Compliance cycles
- Assigned on data import
- Used to filter data views

Click on the **Cycles** link



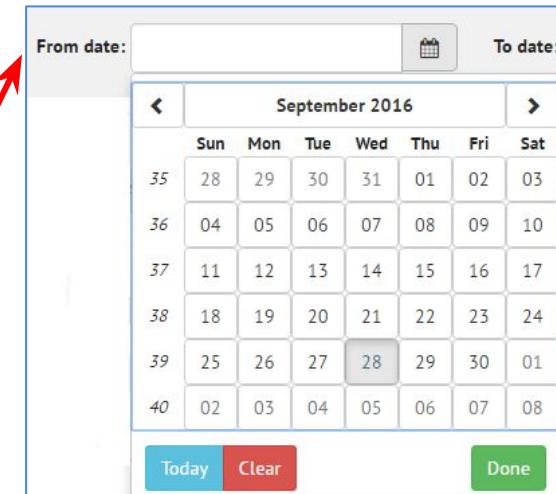
NAME	FROM DATE	TO DATE	
2019 Compliance Year	01-01-2019	12-31-2019	<a href="#">Edit</a> <a href="#">Delete</a>
2020 Compliance Year	01-01-2020	12-31-2020	<a href="#">Edit</a> <a href="#">Delete</a>
2021 Compliance Year	01-01-2021	12-31-2021	<a href="#">Edit</a> <a href="#">Delete</a>

**Create new cycle**

1 - Type a name to create a new cycle

2 - Set the **From date** and **To date**

3 - Click **Create Cycle** to save it



# Data Quality: Overview

## Manage Data Quality Rules

- Create Data Quality rules
- Data Quality rules are run automatically by the program in the Mapping Review step
- Data Quality rules can be run “by hand” any time from the Actions menu in the Inventory List view

[← Organizations](#)

**BPS Test**

Column Settings Column Mappings Cycles **Data Quality** Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

**Data Quality**

Reset All Rules Save Changes

Click on the **Data Quality** link

### Modifying Data Quality Rules

From the table below, select the rules that you want to: 1) enable/disable within your organization, 2) modify the minimum/maximum values to validate against on file upload, and 3) optionally assign or remove a label if the condition is not met.

Reset All Rules: delete all rules and reinitialize the default set of rules.

[Create a new rule](#)

Separate rules are defined for Property and Tax Lot fields

View by Property (6) View by Tax Lot (2)

Minimums & Maximums are set for Range checks

Labels can be added to Data Quality rules

Data Quality rules can be deleted

<input checked="" type="checkbox"/>	CONDITION CHECK	FIELD	DATA TYPE	MINIMUM	MAXIMUM	UNITS	SEVERITY LEVEL	LABEL	DELETE
<input checked="" type="checkbox"/>	Not Null	ENERGY STAR Score	Number	(no min)	(no max)		Error	DQ: Energy Star Missing	X
<input checked="" type="checkbox"/>	Range	ENERGY STAR Score	Number	10	100		Error	DQ: Energy Star Score Hi or Low	X
<input checked="" type="checkbox"/>	Not Null	Gross Area (SF)	Number	(no min)	(no max)		Error	DQ: Gross Floor Area Missing	X
<input checked="" type="checkbox"/>	Range	Gross Floor Area (ft <sup>2</sup> )	Number	100	7000000	sqft	Error	DQ: Gross Floor Area Hi or Low	X
<input checked="" type="checkbox"/>	Range	Site EUI (kBtu/ft <sup>2</sup> /year)	EUI	10	1000	kBtU	Error	DQ: Site EUI Hi or Low	X
<input checked="" type="checkbox"/>	Not Null	Site EUI (kBtu/ft <sup>2</sup> /year)	EUI	(no min)	(no max)		Error	DQ: Site EUI Missing	X

# Data Quality: Create a new rule

**Create a new rule** Click the Create a new rule button

CONDITION CHECK	FIELD	DATA TYPE
<input checked="" type="checkbox"/> Not Null	Address 1	Text
<input checked="" type="checkbox"/> Range	ENERGY STAR Score	Number
<input checked="" type="checkbox"/> Not Null	Gross Floor Area (ft <sup>2</sup> )	
	Owner	

Required  
Not Null  
Range  
Must Contain  
Must Not Contain

**View by Property 8** Select the desired field from the pulldown list

**View by Tax Lot 2**

**Set the Data Type**

**Enter Min/Max or Text to check if applicable**

**Units If applicable**

**Set to Error or Warning**

**Click + to add a label**

**Click the red X button to delete the rule**

CONDITION CHECK	FIELD	DATA TYPE	MINIMUM	MAXIMUM	UNITS	SEVERITY LEVEL	LABEL	DELETE
<input checked="" type="checkbox"/> Required	Address 1	Text				Error	<b>Address Missing</b>	 

CONDITION CHECK	FIELD	DATA TYPE	MINIMUM	MAXIMUM	UNITS	SEVERITY LEVEL	LABEL	DELETE
<input checked="" type="checkbox"/> Required	Address 1	Text				Error	<b>Address Missing</b>	
<input checked="" type="checkbox"/> Range	ENERGY STAR Score	Number	10	100		Error	DQ: Low / No ENERGY STAR Score	

Click the Save Changes button → Save Changes

# Derived Columns

Click on the **Derived Columns** tab

Derived columns can be defined for Properties or Tax Lots

All the Derived Columns are shown in this list

Click Create Derived Column to define a new one

Edit the existing Derived Columns

DERIVED COLUMN NAME	EXPRESSION	ACTIONS
Diff From Target	\$WeatherNormEUI-\$TargetEUI	

Give the Derived Column a name

Define names for each parameter

Create the expression, add \$ to each Parameter Name

Derived Columns

Derived column name: Diff From Target

Type: Property

Parameter name: WeatherNormEUI

Source column: Weather Normalized Site EUI

Parameter name: TargetEUI

Source column: EUI Target

+ Add parameter

Expression: \$WeatherNormEUI-\$TargetEUI

Select the existing fields to add to the calculated expression

The Type will default to the tab set when the Derived Column was created

eui

- Site EUI
- Site EUI Modeled
- Site EUI Weather Normalized
- Source EUI
- Source EUI Modeled
- Source EUI Weather Normalized
- EUI Target
- EUI Target Year
- Weather Normalized Site EUI

Save

# Email Templates

**BPS Test**

Click on the **Email Templates** tab

**Email Templates**

Available Templates: ENERGY STAR Score Issue

Custom emails can be sent to Building Owners using the templates defined below. The email will be sent to the SEED record's Owner Email address and is currently not configurable. The email 'from' address is the same as the server email address which is also used to email users their account information.

The email supports brace templating to pull in data from the SEED property record. For example, the snippet below will replace the latitude and longitude from the SEED record. Other fields can be added, but make sure to use the SEED field name not the display name.

"Your building's latitude and longitude is {{latitude}}, {{longitude}}!"

**Subject** Create a subject line for the email

Benchmarking Compliance: Please check the ENERGY STAR Score for your building

**Content**

Create content for the email using fields from the data shown in the Inventory List, such as owner name.

Select the Email Template and the email(s) will be sent

In the Inventory List, select the properties to send this email to, and the appropriate email template can be selected

Actions:

- Select All (9)
- Select None
- Selected Properties (1 selected)**
- Merge
- Delete
- Export
- Add/Remove Labels
- Data Quality Check
- Email**
- Run Analysis (beta)

Select an Email Template

ENERGY STAR Score Issue	Select
Site EUI Issue	Select

# Labels

< Organizations

BPS Test

Click on the Labels link

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

Create new label

Label Name

gray ▾

Show in List

Create label

4 - Click Create Label

Existing Labels

To Create a new label:

1 - type the name of the label

2 - set the color

3 - Check whether to show it in the  
Inventory List view

NAME

< 10,000 SF

- Labels can be defined in this page
- They can also be defined “on the fly” in the Inventory List and Detail view as needed

Show in List

edit

X

> 10,000 < 50,000 SF

Show in List

edit

X

> 50,000 SF

In this screen you can define as many labels as you need

Call

Change of Ownership

College / University

Compliant

DQ: Energy Star Missing

DQ: Energy Star Score Hi or Low

DQ: Gross Floor Area Hi or Low

- A set of default labels are automatically generated (dark blue)
- The default labels can be edited or deleted

You can  
Edit  
or  
Delete  
existing labels

edit

X

edit

X

edit

X

edit

X

edit

X

edit

X

edit

103

# Members

You can invite new members to your organization

[← Organizations](#)

LBNL 302

Click on the **Members** link

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels **Members** Program Setup Settings Sharing Sub-Organizations

**Members**

MEMBER NAME	MEMBER EMAIL	MEMBER ROLE
member name	member email	Member role
Robin LBNL 302	rdmitchell+302@lbl.gov	

seeddemostaging.lbl.gov says

Really reset all passwords? This will sign you out of SEED.

OK

Cancel

Invite a New Member

First Name:

Enter first name

Last Name:

Enter last name

Email Address:

Enter email address

Role:

Member

Owner

**Member**

Viewer

Cancel

Send Invite

You can set the role of  
the new member

When you click  
**Send Invite**  
the person will receive an email, asking  
them to set a password for their account

# Program Setup

[◀ Organizations](#)

**BPS Test**

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings Sharing Sub-Organizations

**Program Setup**

[Delete](#) [Save Changes](#)

**PROGRAM**

- BPS Compliance Both Metrics [×](#)
- BPS Compliance - GHG Only [×](#)
- BPS Compliance - Energy only [×](#)

[+ New Program](#)

**GENERAL SETTINGS**

Configure your program metric to enable visualizations on the [program overview](#) page.

**PROGRAM DEFINITION**

Name: BPS Compliance Both Metrics

**CYCLES TO INCLUDE IN COMPLIANCE PERIOD**

**FILTER GROUP**

Large Office

**VISUALIZATION SETTINGS**

Select at least one field which will serve as the x-axis for visualizations on the [property insights](#) page. Multiple fields can be selected.

**X-AXIS FIELD OPTIONS**

- Postal Code [×](#)
- Gross Floor Area (ft<sup>2</sup>) [×](#)
- Property Type [×](#)
- Year Built [×](#)

**METRIC TYPE SETTINGS**

The overall metric can be made up of an energy metric, an emission metric, or both. At least one type of metric is required and if two are defined, then both metrics must be met for compliance.

ENERGY METRIC	EMISSION METRIC
Actual Field: Site EUI (kBtu/ft <sup>2</sup> )	Actual Field: Total GHG Emissio
Target Field: EUI Target (kBtu/ft)	Target Field: GHG Target Emissi
Type: Target >= Actual for Comp	Type: Target >= Actual for Comp

The Program Setup tab is used to define the parameters for the Insights feature, accessed from the Insights Navigation tab.

 **INSIGHTS**

There is separate documentation to describe this functionality

# Settings: Options

BPS Test

Click on the **Settings** link[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)Click on the **Options** tab **Settings****Options**[API Key](#)[Default Display Fields](#)[Email](#)[Maintenance](#)[Salesforce](#)[Units](#)**Organization Name**

BPS Test

You can change the organization name

**Enable Geocoding**

Check this to enable automatic geocoding

**Enable ComStock Functionality**

Check this to enable ComStock Functionality

**Save Changes**

# Settings: API Key

BPS Test

Click on the **Settings** link[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

## Settings

Click on the **API Key** tab[Options](#)**API Key**[Default Display Fields](#)[Email](#)[Maintenance](#)[Salesforce](#)[Units](#)**MapQuest API Key**

Key for geolocating with MapQuest

**BETTER Analysis API Key**

Key for running a BETTER analysis

Please refer to the [BETTER documentation](#) to learn how to get an API key. Note, do not prefix the token with "Token ", only include the token itself. BETTER host is configured to be <https://better.lbl.gov>.

**Verify Token****Audit Template Organization Token**

Token for connecting to Audit Template

Please refer to the [Audit Template documentation](#) to learn how to get an API key. Note, do not prefix the token with "Token ", only include the token itself.

**Audit Template Email**

Email for the Audit Template Email

Use the email associated with your account from [Building Energy Score website](#).

**Audit Template Password**

Password for Audit Template

Use the password associated with your account from [Building Energy Score website](#).

# Settings: Default Display Fields

BPS Test

Click on the **Settings** link[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

## Settings

Click on the **Default Display Fields** tab[Options](#)[API Key](#)**Default Display Fields**[Email](#)[Maintenance](#)[Salesforce](#)[Units](#)**Save Changes**

### Property Display Field

Determines which column field is used when displaying and identifying a property. Defaults to "Address Line 1".

[Property Name](#)

### Taxlot Display Field

Determines which column field is used when displaying and identifying a taxlot. Defaults to "Address Line 1".

[Address Line 1](#)

The Property Name now displays  
in the Property Detail view

[Properties](#)

### Property Detail

[Property Detail](#) [Meters](#) [Notes](#) [Column List Profiles](#)

**Property : 37-I1 East County Regional Center**

The default Property  
Display Field was  
changed from  
Address Line 1 to  
Property Name

# Settings: Email

BPS Test

Click on the **Settings** link[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

## Settings

Click on the **Email** tab[Options](#)[API Key](#)[Default Display Fields](#)[Email](#)[Maintenance](#)[Salesforce](#)[Units](#)

### New User Email

Customizes the email sent when a new user is invited to SEED. The body can accept placeholders {{first\_name}} and {{sign\_up\_link}}, including the braces.

**From Email**

info@seed-platform.org

**Subject**

New SEED account

**Body**

Hello {{first\_name}},  
You are receiving this e-mail because you have  
been registered for a SEED account.  
SEED is easy, flexible, and cost effective software  
designed to help organizations clean, manage  
and share information about large portfolios of  
buildings. SEED is a free, open source web  
application that you can use privately. While  
SEED was originally designed to help cities and  
States implement benchmarking programs for

The **Email** feature allows  
creating a template email  
that can be sent to users  
when they are added to a  
SEED organization.

**Signature**

The SEED Team

[Save Changes](#)

# Settings: Maintenance

BPS Test

Click on the **Settings** link[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

Click on the **Maintenance** tab

The screenshot shows the 'Settings' page with a sidebar on the left containing links: Options, API Key, Default Display Fields, Email, Maintenance (which is highlighted with a red background), Salesforce, and Units. To the right, under the heading 'Maintenance Actions', is a red button labeled 'Delete Organization' with a warning icon. Below this, a message states: 'The following actions have destructive effects, please read all warnings after clicking an option.' A large red arrow points from the text 'Click on the Maintenance tab' to the 'Maintenance' link in the sidebar. Another red arrow points from the text 'The Maintenance tab allows the deletion of an organization' to the 'Delete Organization' button.

**Settings**

- Options
- API Key
- Default Display Fields
- Email
- Maintenance**
- Salesforce
- Units

**Maintenance Actions**

The following actions have destructive effects, please read all warnings after clicking an option.

**Delete Organization**

The Maintenance tab allows the deletion of an organization

Save Changes

# Settings: Salesforce (cont'd)

## Salesforce: Configure from within SEED

**Settings**

- Options
- API Key
- Default Display Fields
- Email
- Maintenance
- Salesforce**
- Units

**Salesforce Integration**

Check this checkbox if you would like to sync data between SEED and a Salesforce instance

**Enable Salesforce Integration**

**Salesforce Connection**

Enter your Salesforce instance details and ensure your connection is successful

<b>Salesforce URL</b>	<input type="text"/>
<b>Username</b>	<input type="text"/>
<b>Password</b>	<input type="password"/> 
<b>Security Token</b>	Security token set in Salesforce <input type="text"/> 
<b>Domain</b>	If your Salesforce instance is a sandbox, set this field to the value 'test'; otherwise leave blank. <input type="text"/>

**Test Connection**

# Settings: Salesforce (cont'd)

## Salesforce: Configure from within SEED

### Scheduled Daily Update

If you would like to automatically update Salesforce on a daily basis, configure the fields below

**Hour** Enter the hour when the update should be run daily (0-23) Timezone:  
America/Los\_Angeles

**Minute** Enter the minute after the hour when the update should be run daily (0-59)

**Logging Email** Enter the e-mail address to use when reporting errors during the Salesforce updating process

**Last Salesforce Update**

Reset

Sync Salesforce

# Settings: Salesforce (cont'd)

## Salesforce: Configure from within SEED

**Configuration**

Configure a few parameters needed for data transfer to Salesforce

<b>Indication Label</b>	Label used to designate that a SEED property should be updated in Salesforce. Example: 'Add to Salesforce'
<input type="text"/>	
<b>Violation Label</b>	Label used to designate that a SEED property has a violation. Example: 'Violation - Insufficient Data'
<input type="text"/>	
<b>Compliance Label</b>	Label used to designate that a SEED property is in compliance. Example: 'Complied'
<input type="text"/>	
<b>Salesforce Unique Benchmark ID Fieldname</b>	Fieldname of the Salesforce field that is used to uniquely identify Benchmark records. Example: 'Salesforce_Benchmark_ID_c'
<input type="text"/>	
<b>SEED Unique Benchmark ID Column</b>	Fieldname of the SEED field that is used to uniquely identify Benchmark records. Example: 'Salesforce Benchmark ID'
<input type="text"/>	
<b>Cycle Name Benchmark Field</b>	If your Salesforce Benchmark Record stores cycle name, please enter the name of the salesforce field here, ex: Cycle_c
<input type="text"/>	
<b>Status Label Benchmark Field</b>	If your Salesforce Benchmark Record stores a Status Label value (ex: violation or compliant), please enter the name of the salesforce field here, ex: Status_c
<input type="text"/>	
<b>All Labels Benchmark Field</b>	If your Salesforce Benchmark Record stores a string of all SEED labels applied, please enter the name of the Salesforce field here, ex: SEED_Labels_c
<input type="text"/>	

# Settings: Salesforce (cont'd)

## Salesforce: Configure from within SEED

### Contacts and Accounts

Configure the contact information used for benchmark status notifications in Salesforce. When configured, this functionality will create or update contact records in Salesforce and link them to the Benchmark object.

**Salesforce Account Object Record Type** If your Salesforce instance has multiple account types, provide the Record Type ID of the type of account to use when accounts are automatically created from SEED

**Salesforce Contact Object Record Type** If your Salesforce instance has multiple contact types, provide the Record Type ID of the type to use when contacts are automatically created from SEED

**Account Name** Select the SEED field that holds the account name for the contact record. Ex: 'Organization'

**Contact Name Column** Select the SEED field that holds the contact name for the benchmark record. Ex: 'On Behalf Of'

**Contact Email Column** Select the SEED field that holds the contact email for the benchmark record. Ex: 'Email'

**Contact Benchmark Field** If your Salesforce Benchmark Record stores a Salesforce Contact relation, provide the Salesforce field name here, ex: Contact\_Name\_c

# Settings: Salesforce (cont'd)

## Salesforce: Configure from within SEED

**⚙️ Salesforce Field Mappings**

Map your Salesforce Benchmark Object's fields to columns in SEED. Use the Object Manager in Salesforce to retrieve the field names (not the field labels), ex: Cycle\_c (not Cycle). These fields will only be sent to Salesforce when a property has the compliant label applied.

Salesforce Field Name	SEED Field Name	Action
ENERGY_STAR_Score_c	ENERGY STAR Score	X
Portfolio_Manager_Property_ID_c	PM Property ID	X
Site_EUI_kBTU_ft2_c	Site EUI (kBtu/ft <sup>2</sup> /year)	X
Total_GHG_Emissionsn_Metric_tons_CO2e_c	Total GHG Emissions (t/year)	X

**Add Mapping**

**Save Changes**

# Settings: Units

BPS Test

Click on the **Settings** link
[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

## Settings

Click on the **Default Display Fields** tab[Options](#)[API Key](#)[Default Display Fields](#)[Email](#)[Maintenance](#)[Salesforce](#)[Units](#)

### Measurement unit display for energy use intensities (EUI)

kBtu/sq. ft./year



You can change the Units for EUI

kBtu/sq. ft./year

GJ/m<sup>2</sup>/yearMJ/m<sup>2</sup>/yearkWh/m<sup>2</sup>/yearkBtu/m<sup>2</sup>/year

### Meter energy display units (change one at a time)

----Choose energy type----



You can change the Units used in the display of  
the Meter Data  
(Property Detail View / Meters)  
See the next page for more details

### Measurement unit display for areas

square feet

You can change the  
Units for area (SI/IP)

square feet

square metres

### Number of decimal places to display

2 (e.g., 0.12)

You can change the  
number of decimal  
places displayed

0 (e.g., 0)

1 (e.g., 0.1)

2 (e.g., 0.12)

3 (e.g., 0.123)

4 (e.g., 0.1234)

### Thermal Conversion Assumption

US

You can change the thermal  
conversion assumption  
between the US and Canada

US

Canada

Warning: Meters will be imported as  
and viewed according to this  
assumption.

[Save Changes](#)

# Settings: Units (cont'd)

BPS Test

Click on the **Settings** link

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup **Settings** Sharing Sub-Organizations

**Settings**

Options API Key Default Display Fields Email Maintenance Salesforce **Units**

**Step 2:**  
Select the “display unit” if you want to change it, in this case from **kBtu** to **therms**

**Measurement unit display for energy use intensities (EUI)**  
kBtu/sq. ft./year

**Meter energy display units (change one at a time)**  
Natural Gas | kBtu (thousand Btu)

**Measurement unit display for areas**  
square feet

**Number of decimal places to display**  
2 (e.g., 0.12)

**Thermal Conversion Assumption**  
US

**Meter energy display units (change one at a time)**  
Natural Gas | kBtu (thousand Btu)  
----Choose energy type----  
Coke | kBtu (thousand Btu)  
Wood | kBtu (thousand Btu)  
Diesel | kBtu (thousand Btu)  
Other: | kBtu (thousand Btu)  
Propane | kBtu (thousand Btu)  
Kerosene | kBtu (thousand Btu)  
**Natural Gas | kBtu (thousand Btu)**  
District Steam | kBtu (thousand Btu)  
Electric - Grid | kWh (thousand Watt-hours)  
Electric - Wind | kWh (thousand Watt-hours)

**kBtu (thousand Btu)**  
----Change display unit----  
ccf (hundred cubic feet)  
cf (cubic feet)  
cm (cubic meters)  
GJ  
kBtu (thousand Btu)  
kcf (thousand cubic feet)  
MBtu/MMBtu (million Btu)  
Mcf (million cubic feet)  
**therms**

**Save Changes**

**Step 3: Click the Save Changes button**

**Step 1:**  
• Select the Fuel from the first pulldown list  
• It will have a default set of units displayed

**Step 4: In Property Details / Meters, the Natural Gas data is now displayed in therms**

Start Time	End Time	Natural Gas - GB - 4864658 (therms)
2014-01-01 00:00:00	2014-01-02 00:00:00	0.00
2013-12-31 00:00:00	2014-01-01 00:00:00	2.08

# Sharing

[← Organizations](#)

BPS Test

Column Settings Column Mappings Cycles Data Quality Derived Columns Email Templates Labels Members Program Setup Settings **Sharing** Sub-Organizations

**Sharing Your Data** Save Changes

**Selecting Fields to Share**

As the admin of your SEED instance you can control what data is shared throughout your organization and between your sub-organizations as well as what data is shared externally with the public-at-large. The subset of data you choose to share with the public can be different than the subset shared between your sub-organizations.

From the list below, select the fields that you want to: 1) share internally within your organization, and 2) share publicly with users outside your organization.

SHARE DATA WITH		
PUBLIC	TABLE NAME	FIELD NAME
<input type="checkbox"/>	Search table name	Search field name
<input type="checkbox"/>	PropertyState	Address Line 1
<input type="checkbox"/>	PropertyState	Audit Template Building ID
<input type="checkbox"/>	PropertyState	City
<input type="checkbox"/>	PropertyState	Owner
<input type="checkbox"/>	PropertyState	Owner Email
<input type="checkbox"/>	PropertyState	PM Property ID
<input type="checkbox"/>	PropertyState	Postal Code
<input type="checkbox"/>	PropertyState	Property Name
<input type="checkbox"/>	PropertyState	Property Type
<input type="checkbox"/>	PropertyState	State
<input type="checkbox"/>	PropertyState	Total GHG Emissions Intensity (kg/ft <sup>2</sup> /year)
<input type="checkbox"/>	PropertyState	Year Built

**Set a Query Threshold**

Enter the minimum threshold count of buildings that can be returned in a shared query. The building count threshold is important for allowing other organizations to perform statistical analysis on your data without revealing information about individual buildings.

Count #

**Click on the Sharing link**

The owner of a Parent Organization can select fields to view between Sub-Organizations.

The owner of a Parent Organization can set the query threshold for viewing records between Sub-Organizations.

# Sub-Organizations

SEED PLATFORM™

[◀ Organizations](#)

LBNL 302

Parent Organization

Current Organization: LBNL 302 ▾

Click on the **Sub-Organizations** link
[Column Settings](#) [Column Mappings](#) [Cycles](#) [Data Quality](#) [Derived Columns](#) [Email Templates](#) [Labels](#) [Members](#) [Program Setup](#) [Settings](#) [Sharing](#) [Sub-Organizations](#)

## Sub-Organizations

Create a new sub-organization

SUB-ORGANIZATION NAME	OWNER NAME	OWNER EMAIL
LBNL 20	Robin LBNL 20	rdmitchell+20@lbl.gov

The owner of a Parent Organization can create Sub-Organizations

### Create a New Sub-Organization

**Sub-Org Name:**

**Invite an Owner:**

Note: Parent organization members are not automatically made members of sub-organizations.

[Cancel](#)[Create New Sub-Organization](#)

The owner being invited to a Sub-Organization has to already be a member of the Parent Organization (and can be deleted from the Parent later)

# Parent / Sub-Organization Roles

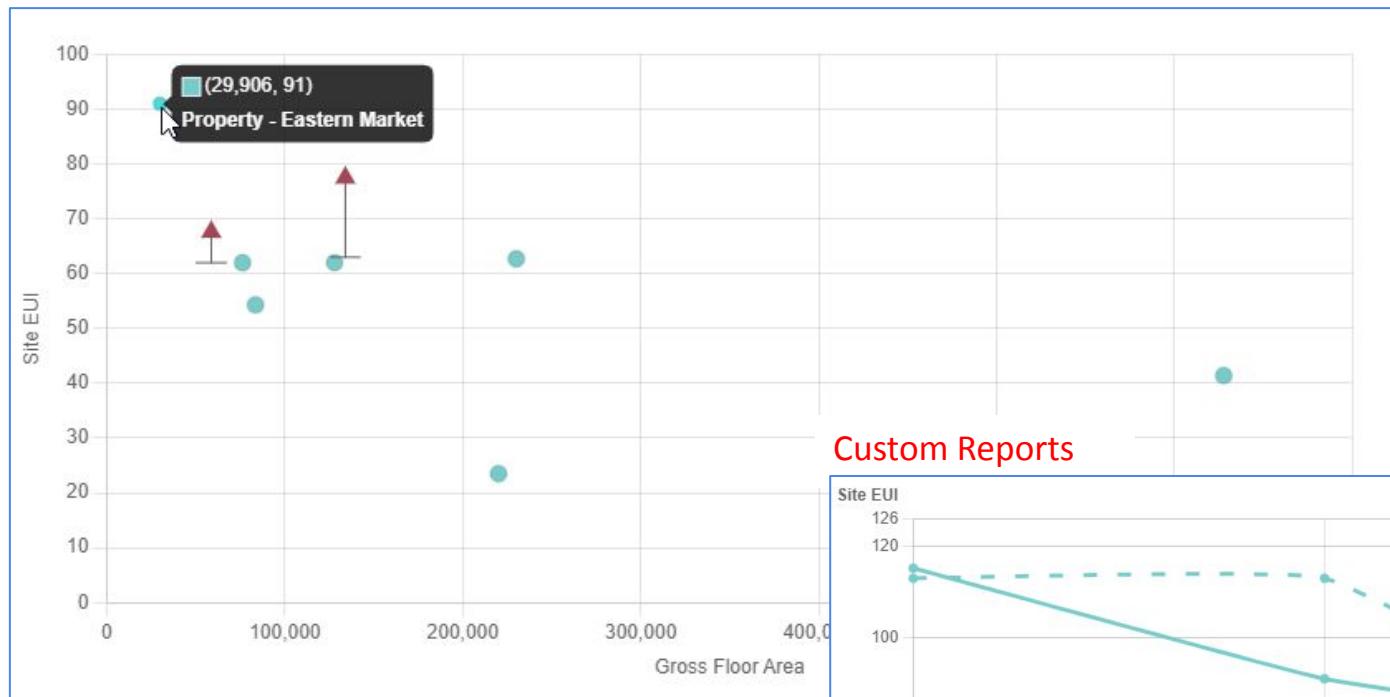
The permissions for each Role in a Parent Organization and a Sub-Organization

	Parent	Sub Organization		
		Owner	Member	Viewer
Set fields for display between Sub-Org	X			
Create Sub Orgs	X			
Add Members	X To parent or at Sub org setup	X To own Suborg		
Remove Members	X In parent	X From own Sub org		
View Members	X In parent Owner(s) of suborg	X In own Sub org		
Change Settings • Rename Suborg • Change member role	X In parent	X In own Sub org		
Add Data (Create Datasets)	X	X	X	
Edit data	X All the Suborgs associated with it	X In own Sub org	X In own Sub org	
View data	X All the Suborgs associated with it	X In own Sub org	X In own Sub org	X In own Sub org

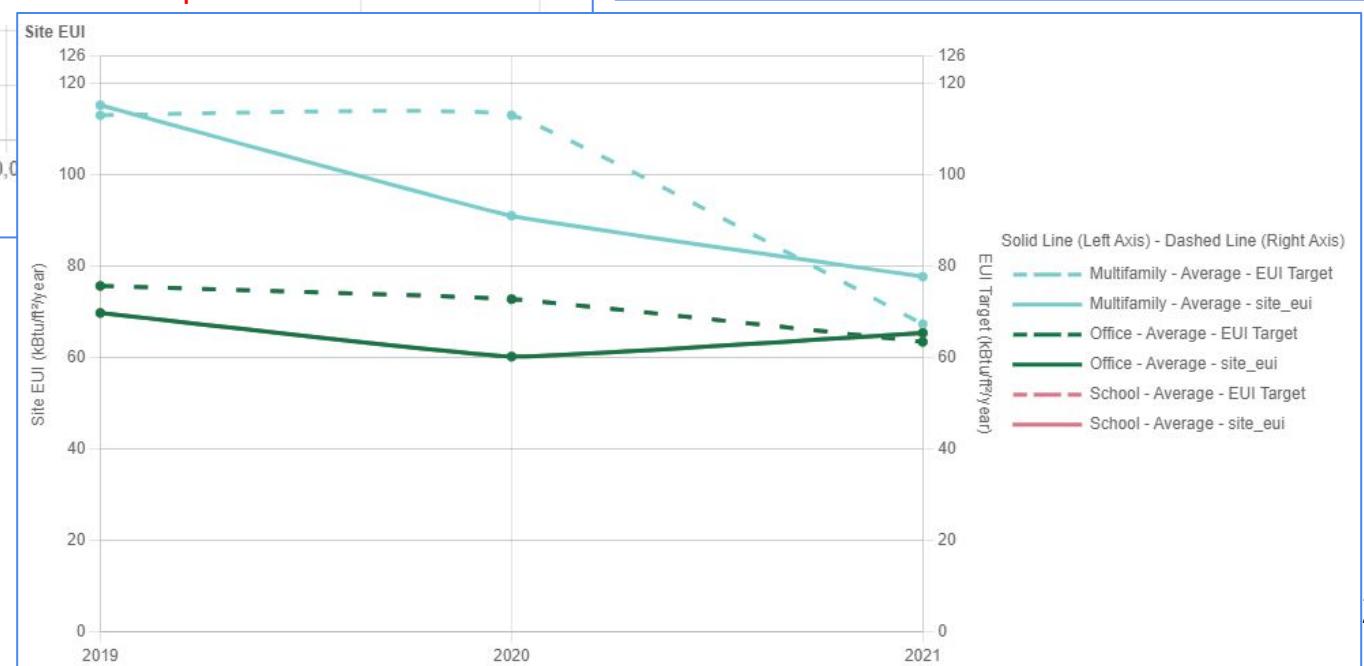
## There are three options for the INSIGHTS navigation bar

- Program Overview
- Property Insights
- Custom Reports

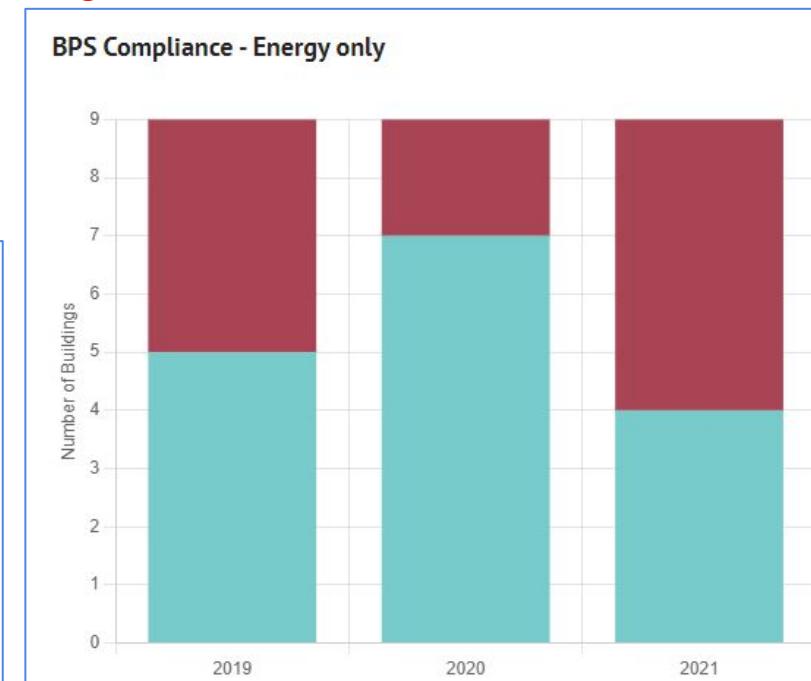
### Property Insights



### Custom Reports

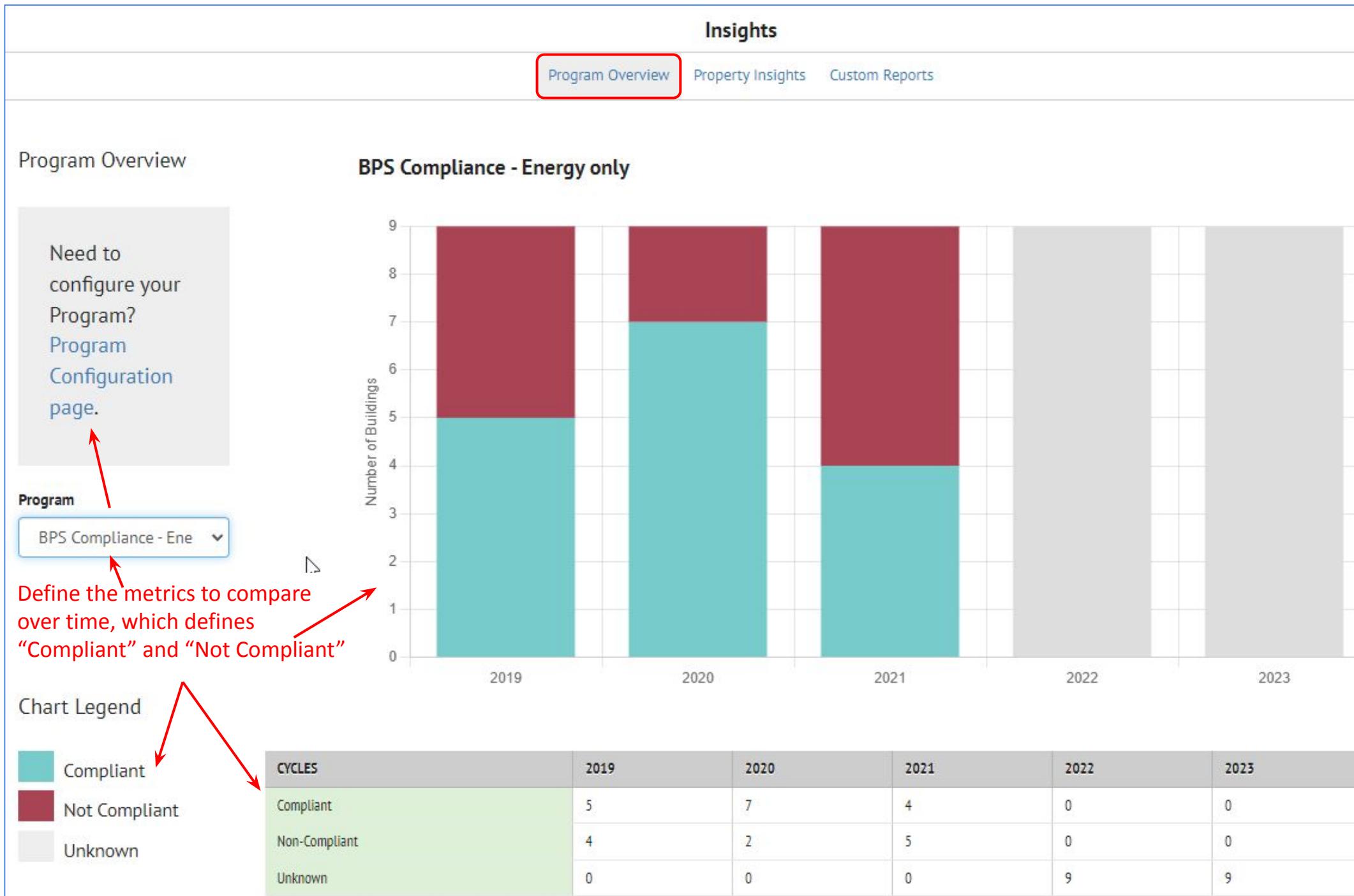


### Program Overview



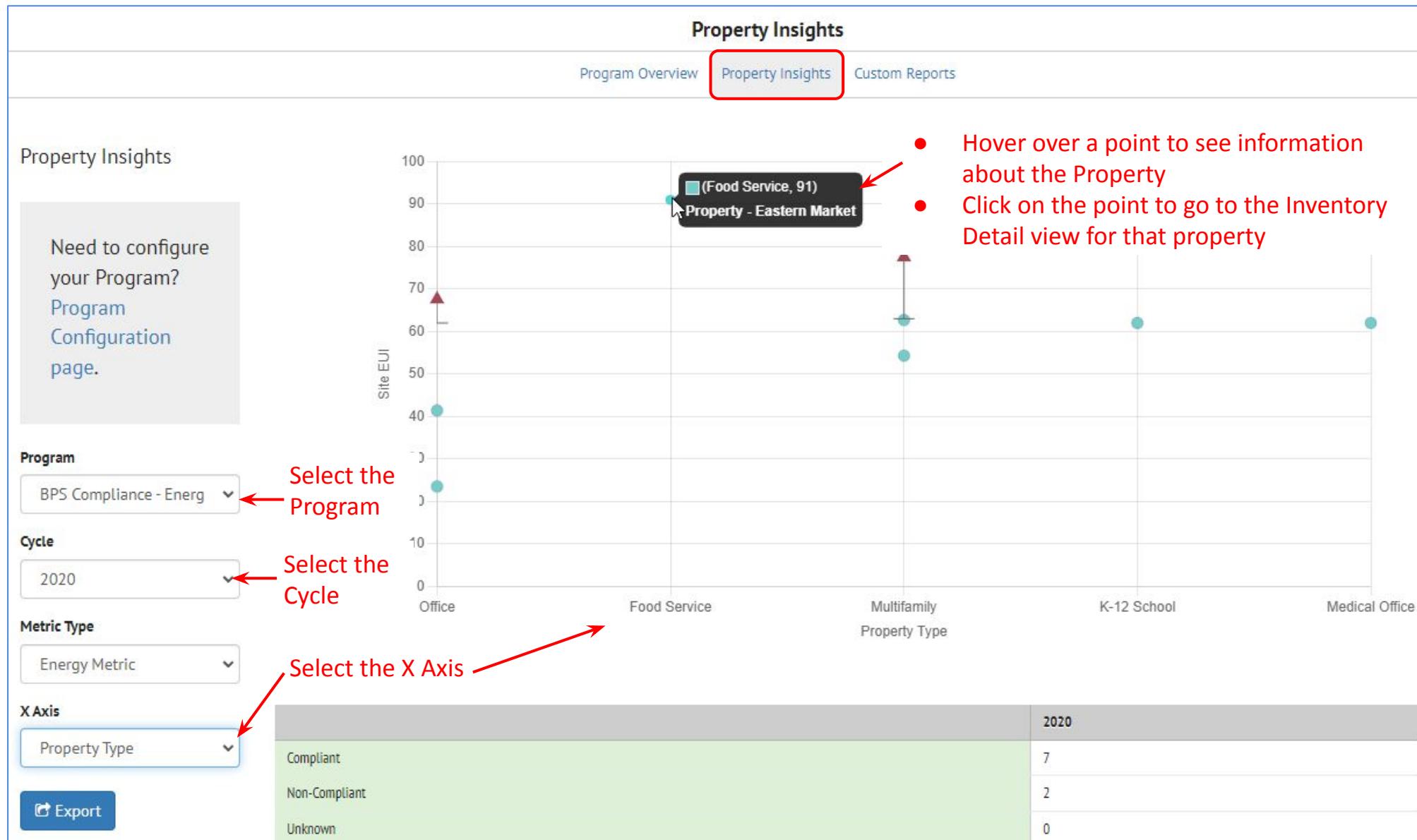
# Program Overview

Program Overview shows portfolio compliance with a performance target over time (cycles)





## Property Insights show compliance for individual buildings



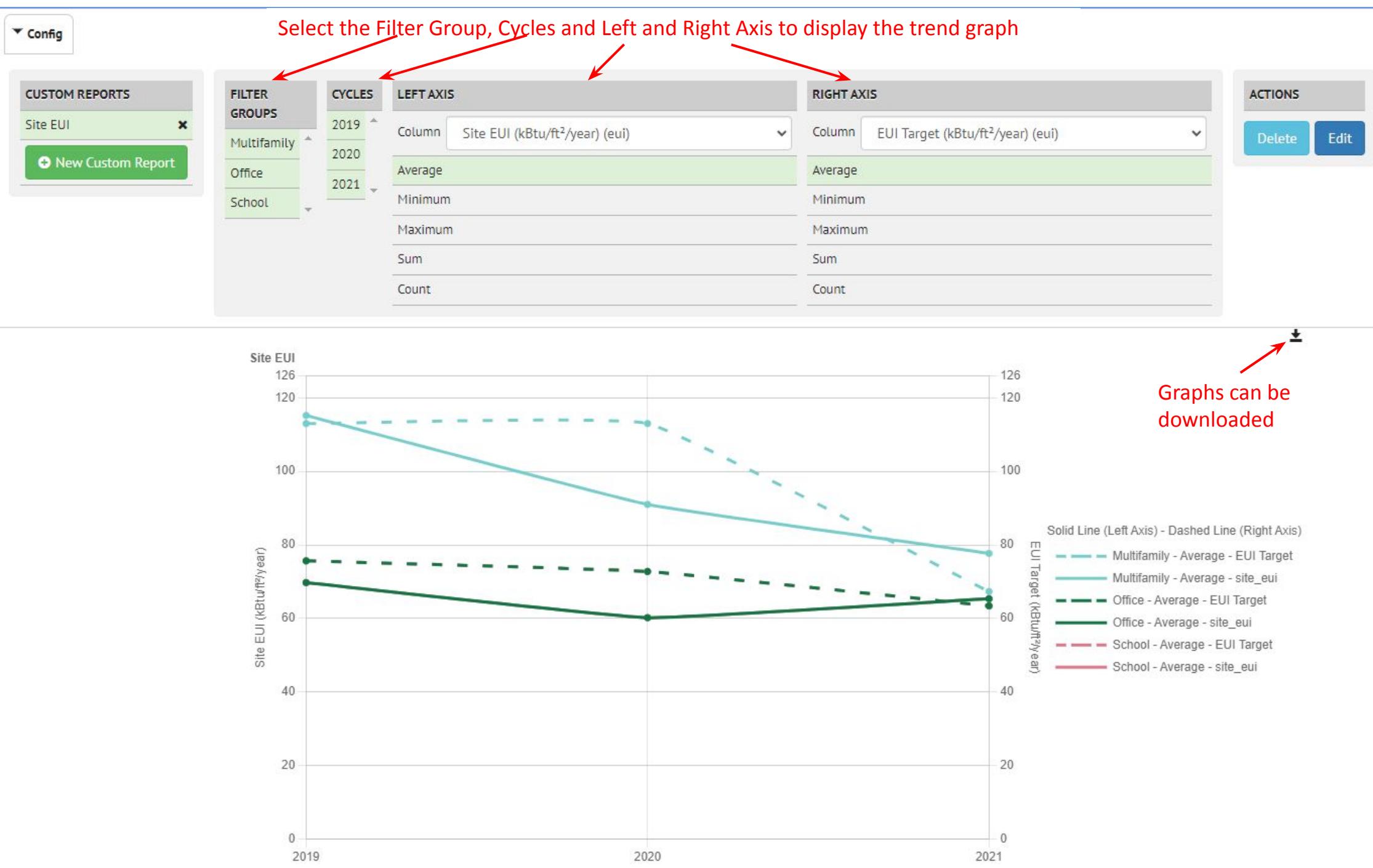
### Chart Legend

● Compliant

▲ Not Compliant

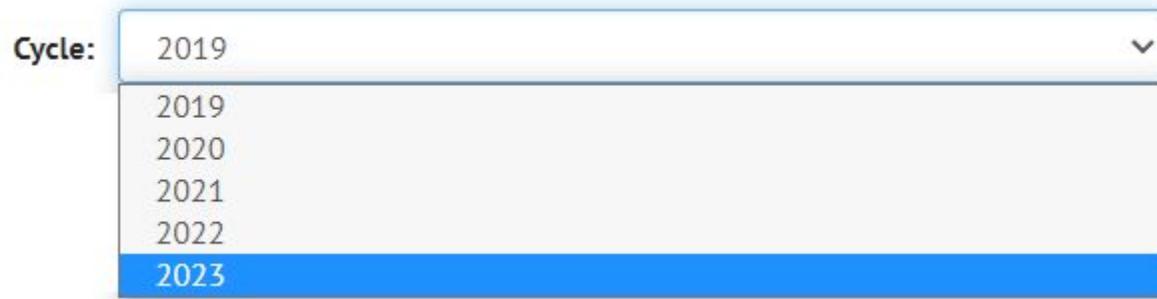
# Custom Reports

Custom Reports shows the metric trend over time for a collection of buildings



# Setting up the data

## Import data over time in different cycles



In this example there are 5 years of data in the Inventory list

**Properties**

Column List Profiles Reports **Cross-Cycles**

The Cross-Cycle comparison in the Property List view can be used to see the data for each cycle

**View by Property** **View by Tax Lot**

	Cycle	Cycle Start	PM Property ID*	Address Line 1*	Total GHG Emissions
+					
-	total cycles: 5		22482007	2425 N STREET NW	
i	2019	2018-12-31	22482007	2425 N STREET NW	562.20
i	2020	2019-12-31	22482007	2425 N STREET NW	511.40
i	2021	2020-12-31	22482007	2425 N Street NW	553.40
i	2022	2021-12-31	22482007	2425 N STREET NW	
i	2023	2022-12-31	22482007	2425 N STREET NW	

There is Greenhouse Gas (GHG) emission data for the first three years of data

# Setting up the data

- Import metrics (ie, Site EUI or GHG emissions) for each building as well as targets for those metrics
- Define “derived fields” to calculate target “deltas” if that is useful

A derived field:

Target EUI - Site EUI

A negative value means the actual EUI is > the target EUI and therefore is non-compliant

These 2 buildings did not meet their target EUI

Cycle:	2020	Actual building Site EUI for 2020		A Target Site EUI for 2021		Target EUI - Site EUI	
	View by Property	View by Tax Lot	PM Property ID	Site EUI (kBtu/ft <sup>2</sup> /year)	EUI Target (kBtu/ft <sup>2</sup> /ye..	EUI Target Year	Delta EUI
✓	h	1	22178844	23.50	62.00	2021	38.5
✓	h	1	22178845	41.40	62.00	2021	20.6
✓	h	1	22178846	67.60	62.00	2021	-5.6
✓	h	2	22178848	77.50	63.00	2021	-14.5
✓	h	1	22178850	91.00	113.00	2021	22

# Program Configuration

Click on the Program Configuration link to define the criteria for these reports

Program Overview
Insights

Program Overview
Property Insights
Custom Reports

**BPS Compliance - Energy only**

Year	Compliant	Not Compliant	Unknown
2019	5	4	0
2020	7	2	0
2021	4	5	0
2022	0	0	0
2023	0	0	0

Need to configure your Program? [Program Configuration page.](#)

Program

BPS Compliance - Energy only

[Export](#)

Chart Legend

- █ Compliant
- █ Not Compliant
- █ Unknown

The cycles defined for the program

CYCLES	2019	2020	2021	2022	2023
Compliant	5	7	4	0	0
Non-Compliant	4	2	5	0	0
Unknown	0	0	0	0	0

127

# Program Configuration

There are two different ways to get to the Program Setup page

The screenshot shows two pages from a software interface. The top bar has 'INSIGHTS' on the left and 'ORGANIZATIONS 1' on the right. A red arrow points from the 'INSIGHTS' bar down to a callout box on the 'INSIGHTS' page. Another red arrow points from the 'ORGANIZATIONS' bar down to the 'Program Setup' tab on the 'BPS Test' page. The 'INSIGHTS' page contains the text: 'Need to configure your Program? Program Configuration page.' The 'BPS Test' page has tabs for Data Quality, Derived Columns, Email Templates, Labels, Members, and Program Setup, with 'Program Setup' highlighted.

The screenshot shows the 'Program Configuration' page. It features a sidebar with a 'PROGRAM' dropdown containing four items: 'New Program', 'BPS Compliance - GHG Only', 'BPS Compliance - Energy only', and 'BPS Compliance Both Metrics'. Below the dropdown is a green button labeled '+ New Program'. To the right of the sidebar is a main area with the message 'No program selected' and a link 'Select a Program to get started!'. Red arrows point from the text 'Click on an existing Program to edit it' to the list items in the dropdown, and from the text 'Click on the New Program button to create a new Program' to the '+ New Program' button.

# Program Configuration

There are three components to define on the Program Configuration page  
 The next few pages will discuss each section in detail

Click on an existing Program name to Edit it

The screenshot shows the 'Program Configuration' page with the following sections:

- GENERAL SETTINGS:** Configure your program metric to enable visualizations on the [program overview](#) page.
- METRIC TYPE SETTINGS:** The overall metric can be made up of an energy metric, an emission metric, or both. At least one type of metric is required and if two are defined, then both metrics must be met for compliance.
- VISUALIZATION SETTINGS:** Select at least one field which will serve as the x-axis for visualizations on the [property insights](#) page. Multiple fields can be selected.

Annotations in red text and arrows highlight specific features:

- An arrow points to the 'New Program' button in the left sidebar with the text: "Click on the New Program button to create a new program".
- An arrow points to the 'BPS Compliance - Energy only' program entry in the sidebar with the text: "Click on an existing Program name to Edit it".
- An arrow points to the 'GENERAL SETTINGS' section with the text: "General Settings to set the compliance period and filter groups".
- An arrow points to the 'METRIC TYPE SETTINGS' section with the text: "Metric Type Settings to define ‘compliance’".
- An arrow points to the 'VISUALIZATION SETTINGS' section with the text: "Visualization Settings to define parameters for the Custom Reports".

# Program Configuration: General Settings

**PROGRAM**

- BPS Compliance - GHG Only
- BPS Compliance - Energy only
- BPS Compliance Both Metrics

**New Program**

Step 2: all the fields will be blank →

**GENERAL SETTINGS**

Configure your program metric to enable visualizations on the [program overview](#) page.

**PROGRAM DEFINITION**

Name

Compliance Period (years)  to

Filter Group

Step 1: Click on the New Program button to create a new program

Step 3: Fill in the values for

- Name →
- Compliance Period →
- The cycles to include in this Program →
- Filter Group →

These are defined in the Inventory List

**GENERAL SETTINGS**

Configure your program metric to enable visualizations on the [program overview](#) page.

**PROGRAM DEFINITION**

Name  2024 Compliance

Compliance Period (years)  2019 to  2023

Filter Group

**VISUALIZATION**

Select at least one property type

Large Office  
MF Big Building  
Multifamily  
Office  
School  
Super small sample

# Program Configuration: Metric Type Settings

It is possible to define just an Energy Metric, just an Emission Metric, or both  
 You have to define at least one in order to save the settings

Define the fields

**METRIC TYPE SETTINGS**

The overall metric can be made up of an energy metric, an emission metric, or both. At least one type of metric is required and if two are defined, then both metrics must be met for compliance.

<b>ENERGY METRIC</b>	<b>EMISSION METRIC</b>
Actual Field	Actual Field
Target Field	Target Field
Type	Type

The pulldown list will show all the fields for the property

<b>ENERGY METRIC</b>	<b>EMISSION METRIC</b>
Actual Field	Actual Field
Target Field	Target Field
Type	Type

Actual Field dropdown menu:

- Site EUI (kBtu/ft<sup>2</sup>/year)
- National Median Site EUI (kBtu/ft<sup>2</sup>/year)
- National Median Source EUI (kBtu/ft<sup>2</sup>/year)
- Occupancy Percent
- Occupied Floor Area (ft<sup>2</sup>)
- Parking Floor Area (ft<sup>2</sup>)
- Site EUI (kBtu/ft<sup>2</sup>/year)** (highlighted)
- Site EUI Modeled (kBtu/ft<sup>2</sup>/year)
- Site EUI Weather Normalized (kBtu/ft<sup>2</sup>/year)
- Source EUI (kBtu/ft<sup>2</sup>/year)

The Type pulldown list defines Compliance, i.e., how the Target and the Actual values are compared.

<b>ENERGY METRIC</b>	<b>EMISSION METRIC</b>
Actual Field	Actual Field
Target Field	Target Field
Type	Type

Type dropdown menu:

- Target > Actual for Compliance
- Target > Actual for Compliance** (highlighted)
- Target < Actual for Compliance

Save your changes

Delete	Save Changes
--------	--------------

# Program Configuration: Visualization Settings

The Visualization Settings are relevant for the Property Insights view

Property Insights

Need to configure your Program? Program Configuration page.

Program

BPS Compliance

Cycle

2021

Metric Type

Energy Metric

X Axis

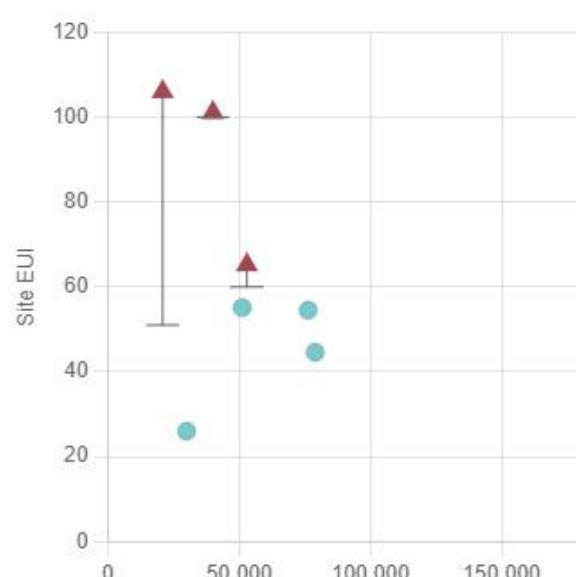
Gross Floor Area

Gross Floor Area

Postal Code

Year Built

Property Type



## VISUALIZATION SETTINGS

Select at least one field which will serve as the x-axis for visualizations on the [property insights](#) page. Multiple fields can be selected.

### X-AXIS FIELD OPTIONS

- Address Line 1
- Address Line 2
- Associated Tax Lot ID
- Audit Template Building ID
- Building Certification
- Building Count
- Buildings and Parking Floor Area (ft<sup>2</sup>)
- Buildings Floor Area (ft<sup>2</sup>)
- City
- Conditioned Floor Area (ft<sup>2</sup>)

## VISUALIZATION SETTINGS

Select at least one field which will serve as the x-axis for visualizations on the [property insights](#) page. Multiple fields can be selected.

### X-AXIS FIELD OPTIONS

- Gross Floor Area (ft<sup>2</sup>)
- Postal Code
- Year Built
- Property Type

The selected fields will be displayed in the pulldown menu in Property Insights

Define the X-Axis Field Options from the list of all fields.

Define as many fields as needed

# Custom Report Setup

The Visualization Settings are relevant for the Property Insights view

**1 - Click the New Custom Report button and a "New Custom Report" is created**

**2 - Select the appropriate filter groups -- filter groups must be defined**

**3 - Select the appropriate cycles**

**4 - Select the field for the Left X Axis**

**5 - Select the field for the Right X Axis**

**6 - Select the Aggregation type for each axis; more than one can be selected**

**7 - Name the report**

**8 - Save the changes**

# Custom Report

**CUSTOM REPORTS**

- GHG Comparison X
- EUI Comparison X

**New Custom Report**

**FILTER GROUPS**

- Multifamily
- Office

**CYCLES**

- 2019 Compliance Year
- 2020 Compliance Year
- 2021 Compliance Year

**LEFT AXIS**

Column **Total Marginal GHG Emissions Intensity**

- Average
- Minimum
- Maximum
- Sum
- Count

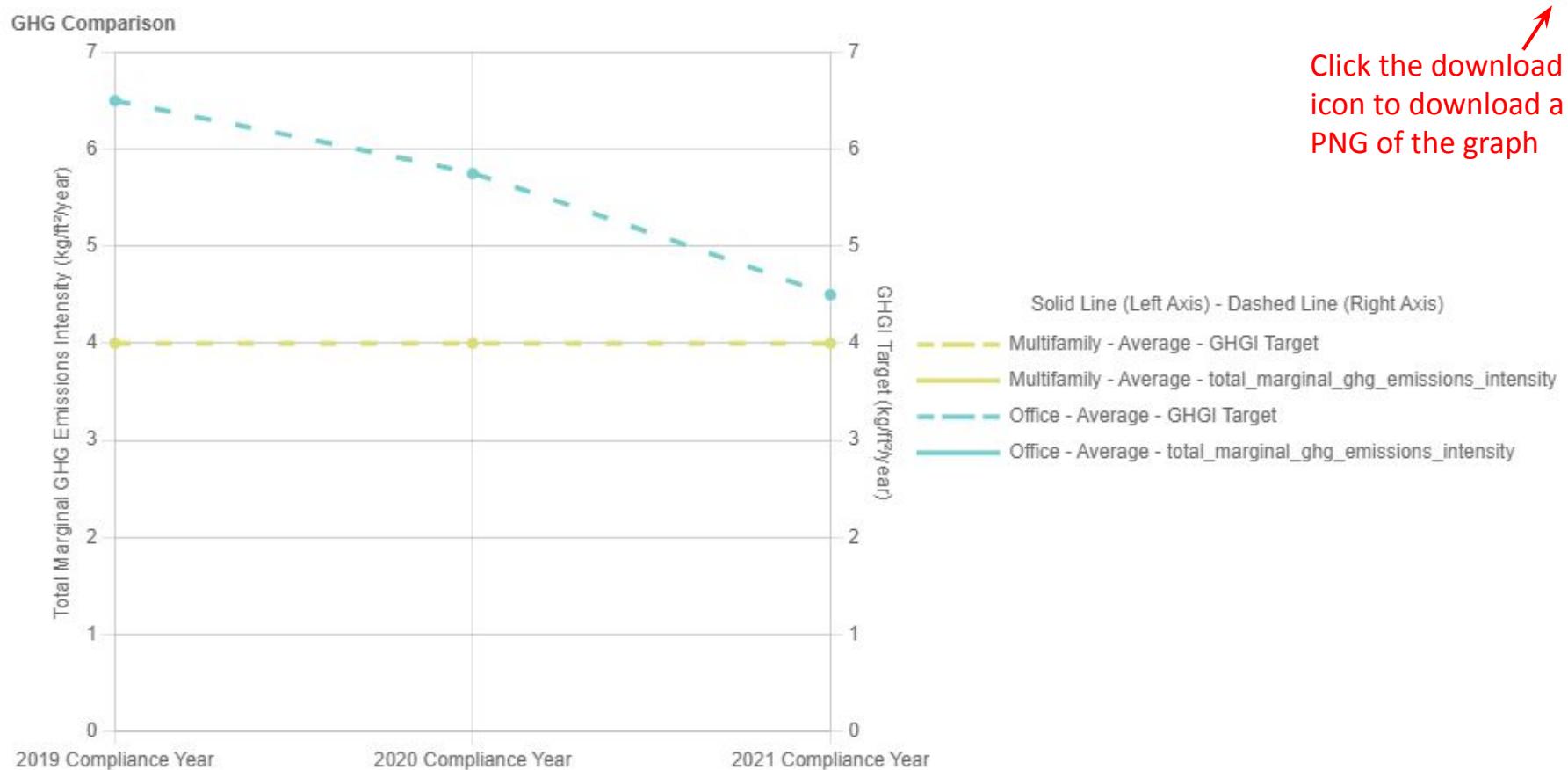
**RIGHT AXIS**

Column **GHGI Target (kg/ft<sup>2</sup>/year) (ghg)**

- Average
- Minimum
- Maximum
- Sum
- Count

Delete Edit

The resulting graph



To change the parameters, click Edit



- There are currently four different types of analysis in SEED
  - **BSyncr**
    - Makes a Building Sync file from the property data in SEED to be used with the NMEC (Normalized Metered Energy Consumption) program
    - Algorithms are based on methods in this Github repository  
<https://github.com/kW-Labs/nmecr>
  - **BETTER**
    - Runs a BETTER analysis from the property data in SEED
  - **EUI**
    - Calculates the EUI of a property based on the meter data and the gross floor area
  - **Average Annual CO2**
    - Calculates the CO2 emissions of a property based on the meter data and the eGRID region (which is based on the location of the property)

There is a separate document which explains in detail the Analysis functionality

# Swagger Interface to SEED RESTful APIs

Swagger  
Supported by SMARTBEAR

<https://seedv2.lbl.gov/api/swagger/?format=openapi>

Explore

## SEED API <sup>v3</sup>

[ Base URL: seedv2.lbl.gov/api ]  
<https://seedv2.lbl.gov/api/swagger/?format=openapi>

Test description

Schemes  
HTTPS ▾

Django rdmitchell+302@lbl.gov Django Logout Authorize

Filter by tag

v1 >

v2 >

v2.1 >

v3 ▾

**GET** /v3/analyses/ v3\_analyses\_list

**POST** /v3/analyses/ v3\_analyses\_create

Parameters Try it out

Name	Description
<b>data</b> * required object (body)	Example Value   Model

▼ {  
    name: string  
        title: Name  
        maxLength: 255  
        minLength: 1  
    integer  
        title: Service  
        Enum:  
            > Array [ 4 ]  
    configuration: Configuration ▼ {

## Contact

### For SEED Platform™ Users:

Please visit our website for information, tutorials, and documentation to help you learn how to use SEED.

<https://seed-platform.org>

The SEED Users Forum is where you can review user announcements, workflow questions, and join to connect with other users.

<https://lists.buildingenergytools.org/g/SEEDusers/topics>

For direct help on a specific problem, please fill out a request on the building data tools website help desk:

<https://buildingdata.energy.gov/#/help-desk>

### For SEED Platform™ Developers:

The open-source code is available on the GitHub organization of seed-platform and contains various repositories for the different components of the platform such as the main SEED application, a Python client to communicate to SEED's API and various example datasets.

<https://github.com/seed-platform>

The SEED Developers Forum contains various topics and joining enables you to connect with other developers. It is recommended to join this forum to submit developer questions, feature requests, and report issues as needed. Also, submitting issues on GitHub is encouraged.

<https://lists.buildingenergytools.org/g/SEEDdevelopers/topics>

## About SEED Platform™

The Standard Energy Efficiency Data (SEED)™ Platform is a software application that helps organizations easily manage data on the energy performance of large groups of buildings. Users can combine data from multiple sources, clean and validate it, and share the information with others. The software application provides an easy, flexible, and cost-effective method to improve the quality and availability of data to help demonstrate the economic and environmental benefits of energy efficiency, to implement programs, and to target investment activity.

[More details](#)

[View Terms of Service](#)

### Development Team:

Managed by: [National Renewable Energy Laboratory & Lawrence Berkeley National Laboratory](#)

Funding from: [U.S. Department of Energy](#)

#### Version

2.18.0.c94869068

When reporting an issue, including the  
complete Version # is useful