Maryland Building Energy Performance Standards (BEPS) Benchmarking Guide

Maryland
Department of the Environment

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Introduction

This manual provides clear instructions and resources for building owners and managers navigating the Maryland Building Energy Performance Standards (BEPS) compliance process for **covered buildings**. Whether you are a building owner, facilities manager, building engineer, or other professional responsible for calculating building energy performance, this manual is tailored to your needs and circumstances. It provides detailed instructions for benchmarking building energy performance using the Environmental Protection Agency's ENERGY STAR Portfolio Manager®, a secure and no-cost tool for tracking energy and greenhouse gas emissions.

By benchmarking properties in Portfolio Manager, building owners can identify inefficiencies, prioritize investments, and verify improvements. Complying with Maryland's BEPS regulations is critical to improving your building's energy efficiency and reducing greenhouse gas emissions statewide. For most first-time users, the Portfolio Manager team estimates it will take about one to two hours to benchmark a building initially but minimal time in subsequent years. If you are working with many buildings, there are economies of scale.

What is a covered building?

A covered building is a commercial or multifamily residential building in the State of Maryland or is owned by the State of Maryland and has a gross floor area of 35,000 square feet or more, excluding the parking garage area, and is:

(i) A single building;

(ii) One or more buildings held in the condominium form of ownership with a combined gross floor area of 35,000 square feet or more, excluding the parking garage area, and governed by a single board of managers; or

(iii) Two or more buildings with a combined gross floor area of 35,000 square feet or more, excluding the parking garage area, that are served in whole or in part by the same electric or gas meter or are served by the same heating or cooling system or systems, which is not a district energy system.

A covered building **does not** include:

(i) A building, or space within a building, individually designated as a historic property under federal, State, or local law, separate and apart from a building's inclusion in a historic district;

(ii) A public or nonpublic elementary or secondary school building;

(iii) A manufacturing building;

(iv) An agricultural building; or

(v) A building owned by the federal government;

What can I find in this manual?

This manual is divided into four sections described in detail below.

Section A is the foundation for understanding how to benchmark in Portfolio Manager for compliance with Maryland BEPS. It walks users through account setup, property creation, and meter data entry. The section also explains how to share your data with the Maryland Department of the Environment (MDE) and verify the accuracy of submitted data through third-party professionals.

Section B outlines exclusions from energy data calculations in ENERGY STAR Portfolio Manager and provides instructions for handling these cases. It covers specific exclusions for electric vehicle (EV) charging, parking, outdoor pools, food service facilities, and details on creating negative meters and adjusting Portfolio Manager settings. For buildings in Montgomery County, there is also guidance on how to use existing benchmarking data for the Montgomery County Department of Environmental Protection (DEP) BEPS to satisfy reporting requirements for Maryland's statewide Building Energy Performance Standards (BEPS).

Section C addresses a flexibility given to Maryland building owners under BEPS: the **campus compliance pathway**. A campus is a collection of two or more buildings, regardless of size or type, that function as a cohesive property with a shared primary purpose and are owned and operated by the same entity. Owners of campuses may opt to meet net direct emissions standards at the campus level instead of at the individual building level when two or more covered buildings meet one of the following criteria: 1) Are connected to a district energy system; 2) Share the same electric or gas meter; 3) Use the same non-district heating or cooling system(s).

Section D explains how to benchmark properties that receive thermal energy from district systems. These systems distribute heating and/or cooling to multiple buildings, making accurate benchmarking more complex. This section explains how owners of covered buildings can benchmark properties connected to district energy systems using ENERGY STAR Portfolio Manager® to ensure that the shared system's energy use is accurately accounted for.

A. MDE Guidance for Benchmarking in ENERGY STAR® Portfolio Manager®

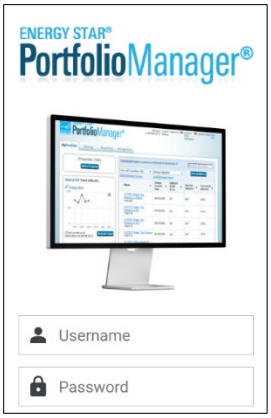
This section explains how owners of covered buildings under the Maryland BEPS can benchmark their properties and share data with the Maryland Department of the Environment (MDE) using the Environmental Protection Agency's ENERGY STAR Portfolio Manager® no-cost benchmarking tool.

ENERGY STAR Portfolio Manager helps building owners measure and track their buildings' energy and greenhouse gas emissions in a secure online environment. The results can be used to identify underperforming buildings, set investment priorities, and verify efficiency improvements.

Note: If you are a Portfolio Manager pro, you can benchmark your buildings through bulk upload spreadsheet templates or web services instead of through individual entries.

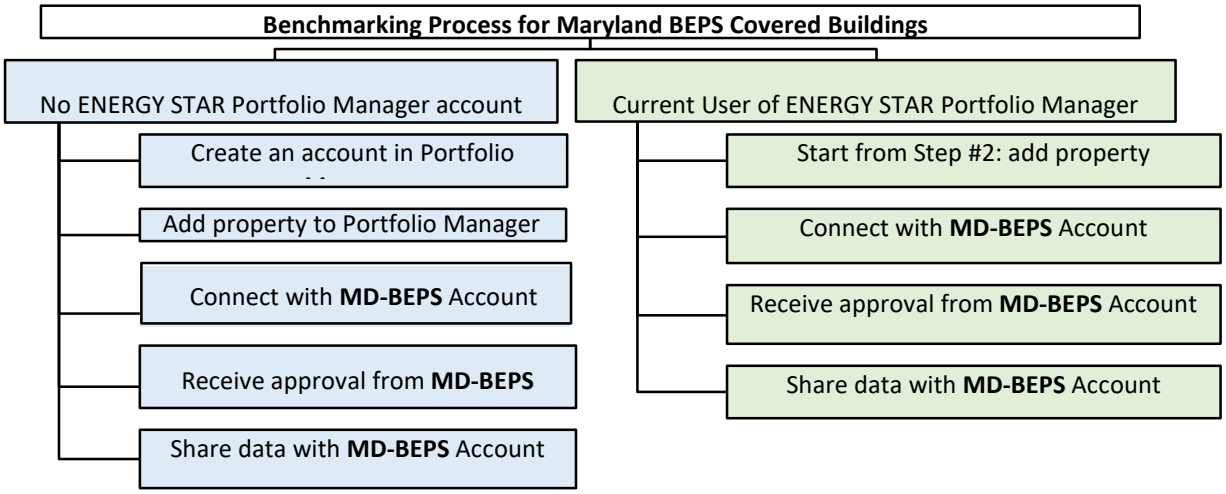
Note: The ENERGY STAR Portfolio Manager Help functionality is a key resource for benchmarking questions. After this guide, it should be your starting point if you have benchmarking questions. If an article does not exist on your specific question, you can also contact Portfolio Manager Support. For BEPS compliance specific questions, reach out to the MD BEPS team at BEPS.MDE@maryland.gov.

1. Create an Account in Portfolio Manager



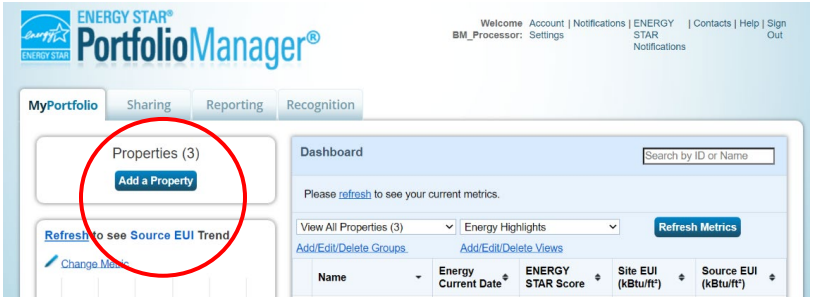
Building owners can create an account at Portfolio Manager Login | ENERGY STAR at no cost to gain access to the benchmarking tool. The name of the Portfolio Manager account does not have to be associated with the property entity. However, MDE requests that an active email address, phone number, and organization name be entered so MDE may contact you for data validation. (**NOTE: The username of the account cannot be changed, so it is highly encouraged that the username is related to or associated with the property/organization.)**

Note: While BEPS regulates individual buildings, buildings are called "properties" in Portfolio Manager.

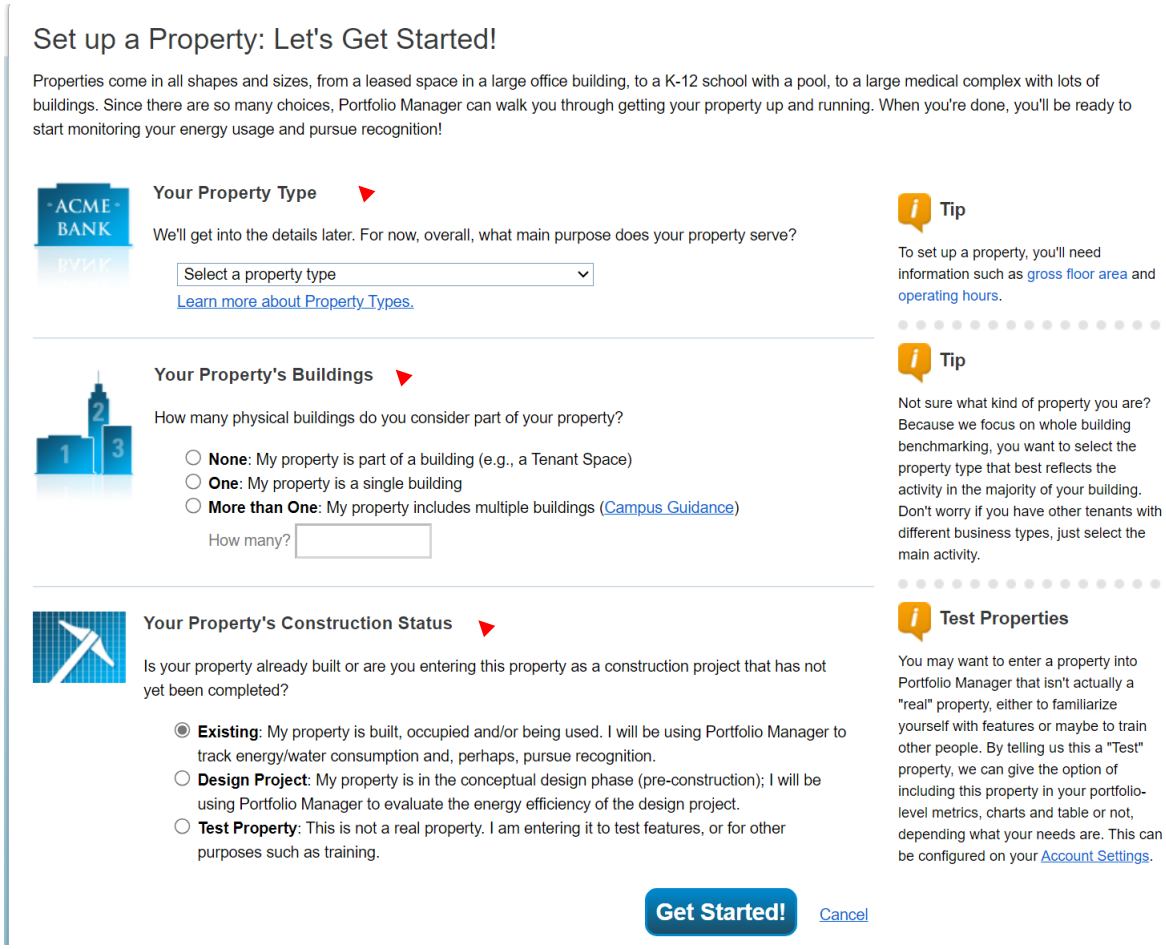


2. Add a Property to Portfolio Manager

1. After logging into your Portfolio Manager account, Click **Add a Property** on the MyPortfolio tab.

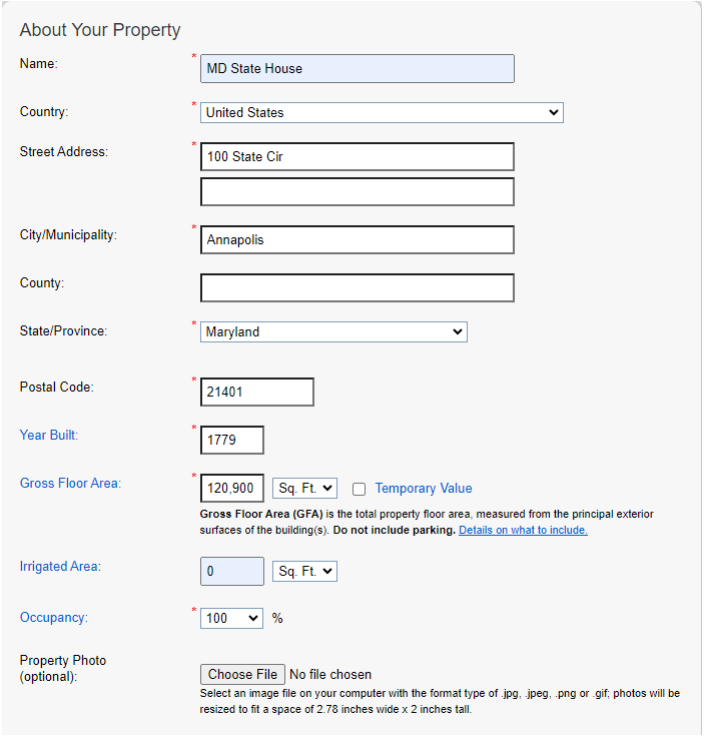


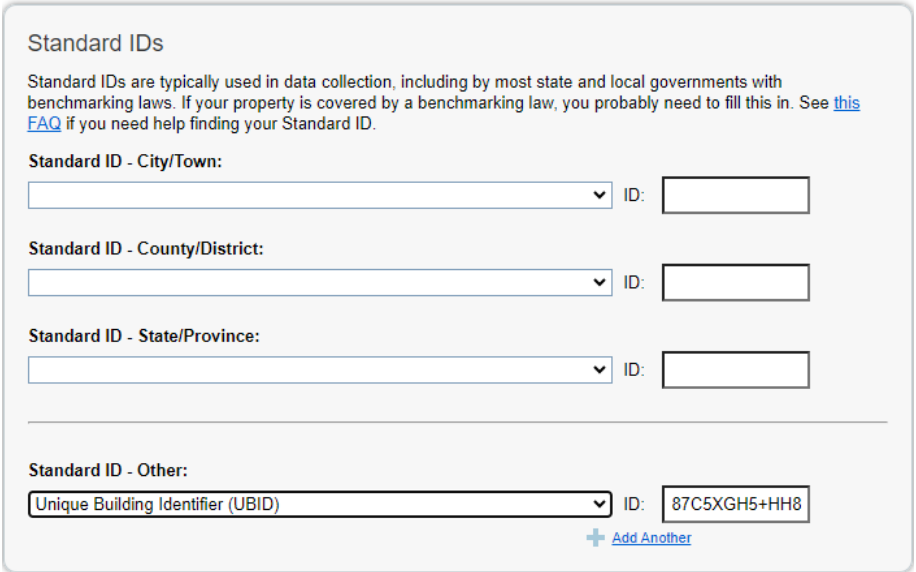
2. Complete the **Set up a Property** page.
   a. Select Property Type for the main use type of your building.
   b. Input the number of physical buildings being reported and their construction status. In general, you should only be reporting a single building per Portfolio Manager property



for BEPS compliance unless you are reporting a campus (see section C). Click **Get Started**!

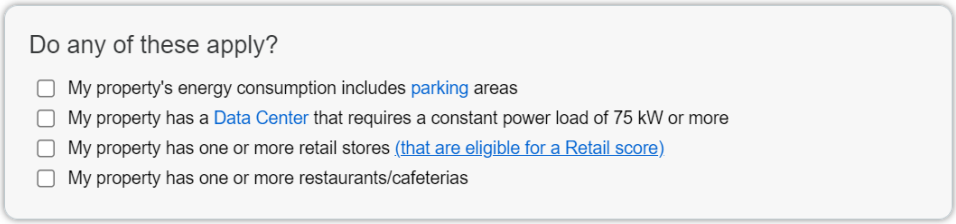
3. Enter **Basic Property Information** and select the boxes next to the statements that apply to your property. Note the following important points:
    a. Under the Standard IDs section, **Standard ID – Other**, select the Unique Building Identifier (UBID) using the dropdown menu. Then, enter your UBID in the ID field (no spaces, all characters), E.g. 87C5XGH5+HH8-13-13-13-13 (see screenshot below). Here's how to find your UBID:
        i. **Go to the [BEPS Website]() and enter the BEPS Portal to view the covered building list.** Search for your building by address, county, etc. If you are unsure if the entry is your building, you can click on the UBID, and it will take you to the building.
        ii. **If your building is listed on the Covered Building List on the BEPS website,** copy the UBID and paste it into the **ID** box for *Standard ID - Other* (see image below).
        iii. **If your property is not listed on the Covered Building List, but meets the definition of a covered building,** create an account on the BEPS portal and submit a Request for UBID. Continue the benchmarking process while your UBID is generated.



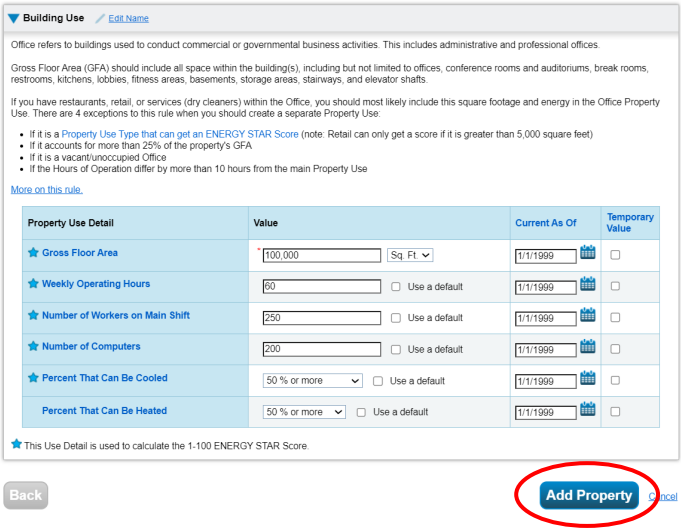


Note: For more information regarding UBIDs, please visit the ENERGY STAR FAQ regarding [Standard ID's]().

b. Select appropriate boxes under the “Do any of these apply?” section. Click Continue.



4. On the next page, “Set Up a Property: How is it used?” enter building use details such as Gross Floor Area (GFA), operating hours, and number of workers for each property use type. Gross floor area is the only requirement for MD BEPS. If you are unsure of any values, use your best estimate or select “use a default.” **Hover the mouse over the blue font section names to see a definition of that field.**
5. Click **Add Property**. Once you have successfully added your property, you will see the property’s Summary tab.



If your Building has additional types of uses on the property, you can add them at any time using the following steps:

1. Click the property’s **Details** tab, then select a Property Use Type from the **Add Another Type of Use** dropdown menu. Click **Add**.
2. Enter Use Details for the property and then click **Save Use**.

Note: Properties with Multiple Use Types

Some properties include multiple use types, such as restaurants in hotels, gyms in apartment buildings, and salons in senior living communities. As a general rule, if a certain use commonly occurs in the type of property being benchmarked, do not break it out as a separate property use type. If the property use type matters for an exclusion (e.g. a food service facility) or it accounts for a substantial amount of GFA, you can break it out so that your performance standards are area-weighted between the types.

If your buildings meet the definition of a campus under Maryland's BEPS or if you think your buildings might, head to Section C to learn more about campus compliance.

3. Add Meters and Enter Utility Data

To meet the BEPS requirements, you must enter how much energy your building consumes into Portfolio Manager. Electric and gas companies in Maryland must provide you with your aggregate whole building energy data within 90 days of a request in 2025 and 30 days in subsequent years. They will provide it in one of two ways: via spreadsheet or direct upload into your account. As part of this data request process, you will need to work with your utility to confirm that all meters for your building, including those of tenants, are included. If your building has five or more tenants, you can request aggregated whole building energy data without needing tenant authorization. If your building has four or fewer tenants, you will need to obtain permission from the tenants via a form or their lease. To learn more about the data request process for your utility(ies) review the Connecting with your Energy Data Provider guidance document, also available on the BEPS Portal. Building owners should request their data at least 90 days ahead of the reporting deadline in 2025 to ensure they are in compliance.

Once you have completed the data request process, follow the steps below to add meters and enter energy data for your building.

a. Web Services Entry By Electric and/or Gas Company

1. Many electric and gas companies in Maryland are either required or have opted to provide energy data directly to your account via Portfolio Manager's web services (automated data exchange services). Follow the instructions in the guidance document to initiate the connection with your participating utility.
2. Once the data request has been fulfilled, you should review the data for accuracy. Click on your property on the **MyPortfolio** tab, then select the **Energy** tab. There you should see the requested data.

Note: You must enter all energy used by the building, not just that provided by your electric and/or gas company. For delivered fuels, follow options **b** or **c** below.
Note: If your utility provides aggregated data from multiple meters/tenants in your building and something changes with the arrangement, such as a new tenant comes in or a tenant space is subdivided and meters are added, owners should ensure all energy use is still accounted for.

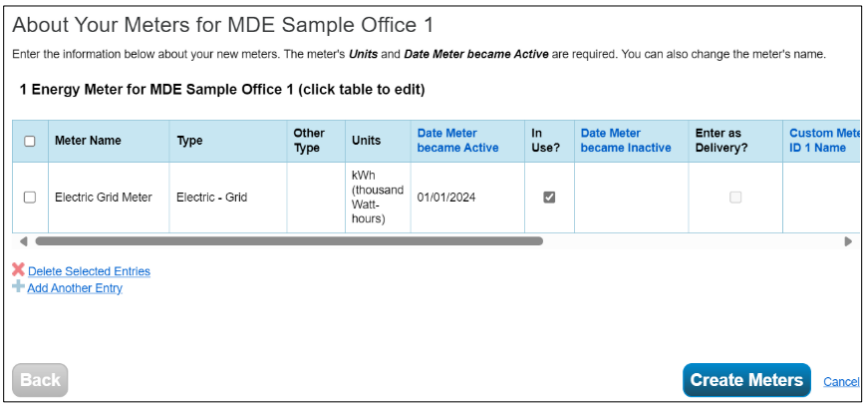
b. Spreadsheet Uploads

If energy consumption data is provided to you by your utility directly instead of via web services, it will be in spreadsheet format. The BEPS regulation requires the format of these spreadsheets align with what is necessary to upload to Portfolio Manager. To upload an energy usage spreadsheet, follow the steps below.

1. Confirm that the spreadsheet you received matches the Portfolio Manager formatting requirements.

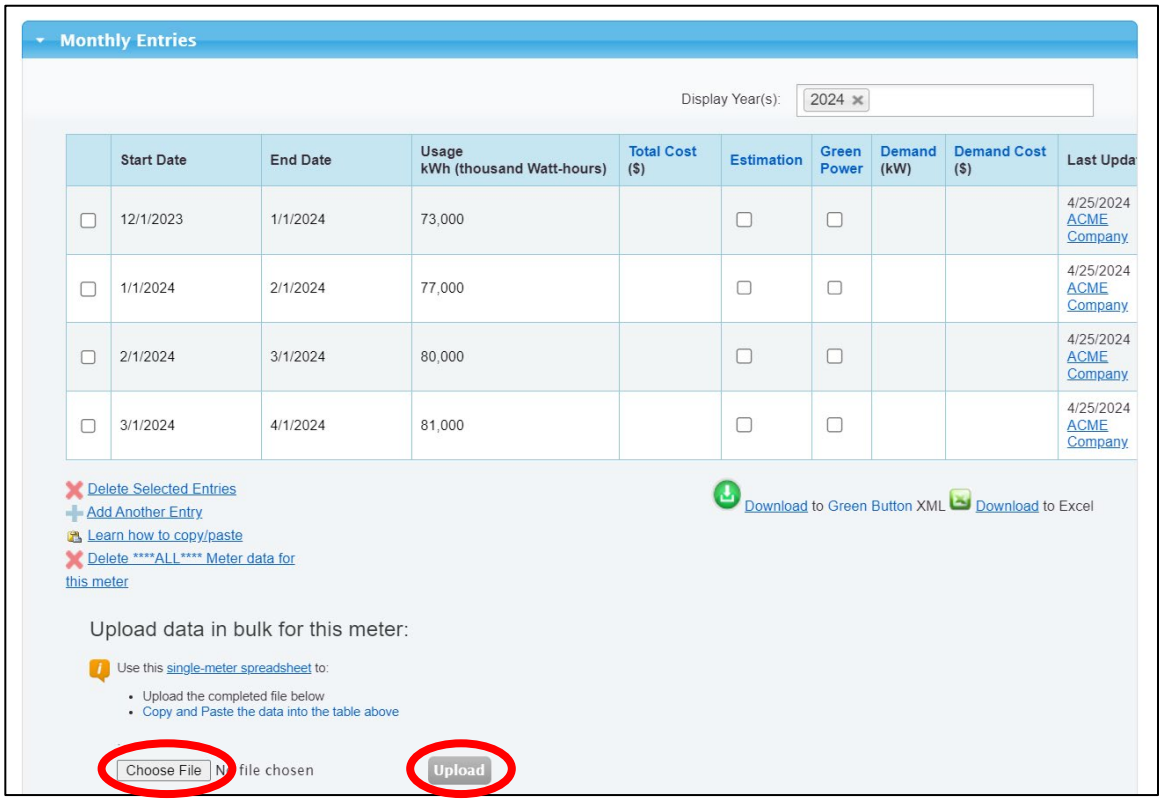
	A	B	C	D	E	F	G
1	Start Date (Required)	End Date (Required)	Usage (Required)	Cost (Optional)	Estimation (Optional)	Demand (Optional)	Demand Cost (Optional)
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

2. Click on your property on the **MyPortfolio** tab, then select the **Energy** tab.
3. Click **Add a Meter**.
4. Select the type of utility used (e.g. Natural Gas, Electric, etc.) and the number of meters to create, and click **Get Started**!
    a. Make sure to include all fuel types for your building.
    b. On the **About Your Meters** page, click to select the type of units your meter uses and the date the meter became active.



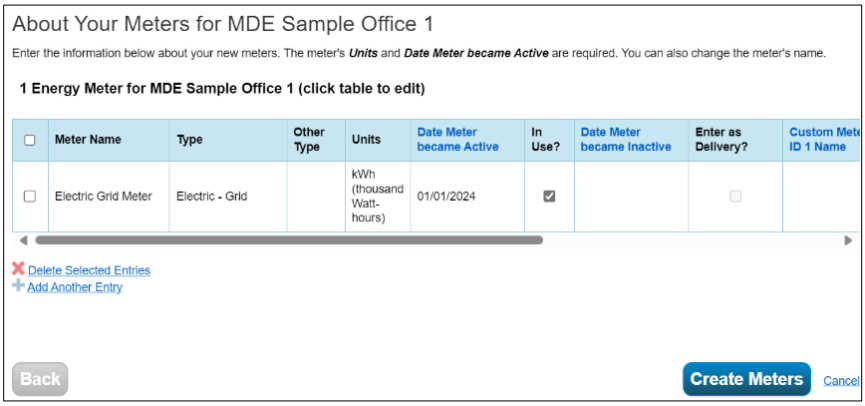
5. To upload the spreadsheet data, select the meter to which the data corresponds.
6. On the meter entries page, click **Choose File**. Select the file you would like to upload from your computer library. Then, click **Upload**.

7. The table will populate with the data from your spreadsheet. Confirm that start and end dates, usage values, and units are correct.



c. Manual Entry

1. Click on your property on the **MyPortfolio** tab, then select the **Energy** tab.
2. Click **Add a Meter**.
3. Select the type of utility used and the number of meters to create and click **Get Started**!
    a. All energy types used in your building must be entered. For example, if you have a diesel generator that has delivered fuel, you will record this as a "Meter" to track your deliveries over time.
4. On the **About Your Meters** page, click to select the type of units your meter uses and the date the meter became active.
    a. If this meter reflects a bulk fuel purchase for an energy meter, select the **Enter as Delivery** checkbox.
5. Click **Create Meters**.



6. Click the blue arrow next to each meter to expand the **Your Meter Entries** page section. Click **Add Another Entry** under the meter and enter the Start Date, End Date, and Usage. You may also choose to record the cost here, too. Once you're finished adding entries, click **Continue**.
7. Select the boxes of the meters that total your property's energy or water use on the **Select Meters to Include in Metrics** page. Click **Apply Selections**.

d. Onsite Generation

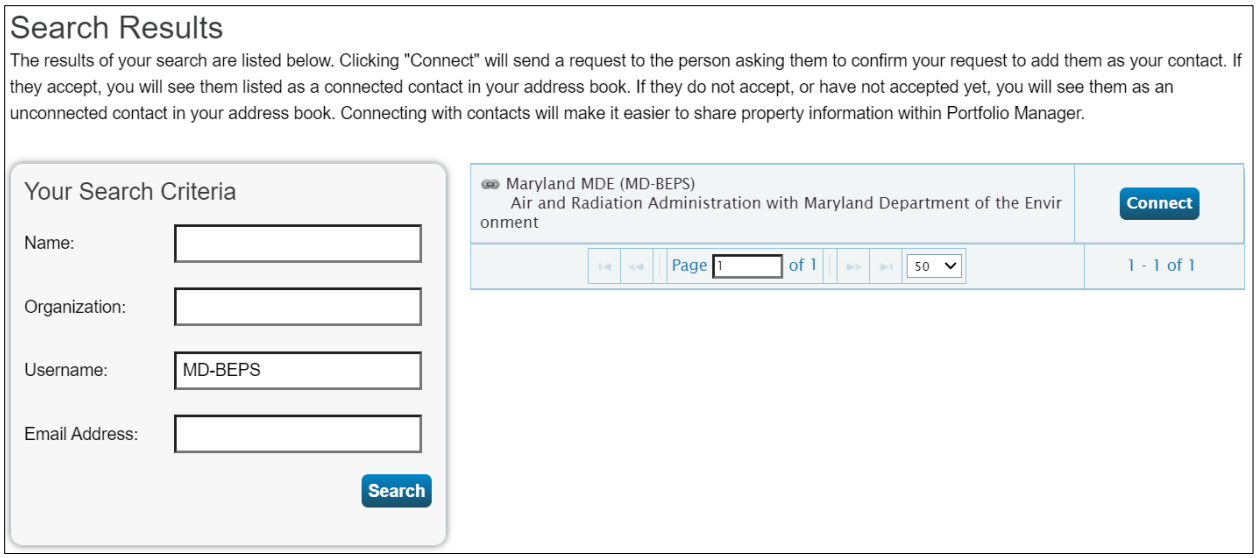
For buildings with onsite generation (such as solar and wind), the energy produced by this generation needs to be properly accounted for. Per the requirements of the regulation, "electric and gas companies shall ensure that the consumption values delivered to the building owner capture total gross grid electricity consumption as metered by the electric or gas company, rather than net, or net-metered, consumption of grid electricity." However, this is only half of the equation, and **building owners need to track their total onsite generation and include energy consumed by their building from their on-site generation that is not exported to the grid in their reported energy use.** For more information on how to do this, see Portfolio Manager's guidance.

4. Connect and Share Property with MDE

To share a property with MDE in Portfolio Manager, you must first be "connected" with MDE as a contact.

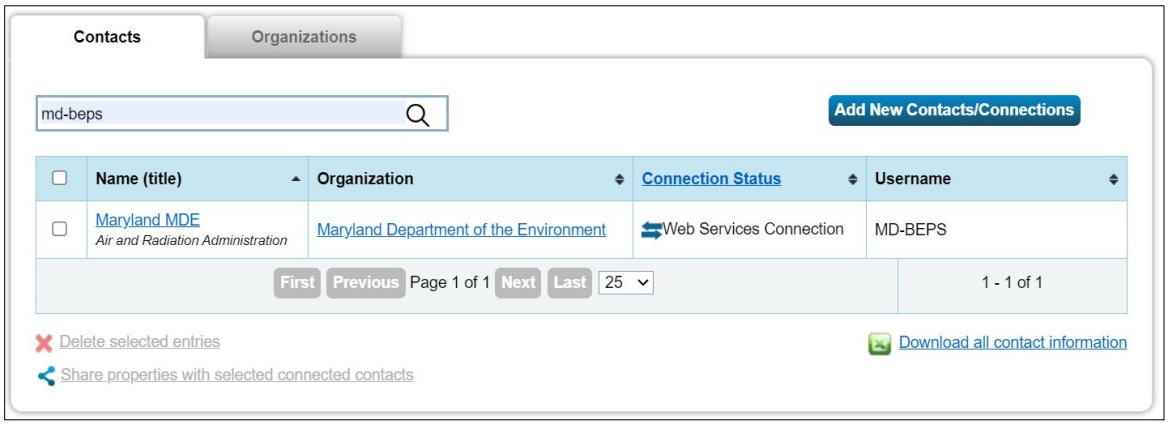
a. Connect

1. To send a connection request, go to the Contacts page in the upper right-hand corner of Portfolio Manager. The directory shows the current contacts list, including those you are currently "connected" with.
2. Click **Add New Contacts/Connections**.
3. Type **MD-BEPS** (dash & no spaces) account name in the username area and click **Search**.



4. Once the username is found on the **Search Results** pane, click **Connect** to send MDE a connection request.

When a connection request is sent, the MDE account will receive a notification. Once MDE accepts the connection request, confirmation will be received on your Portfolio Manager Contacts page. **Owners must receive MDE's confirmation in their account before proceeding to the next steps.**

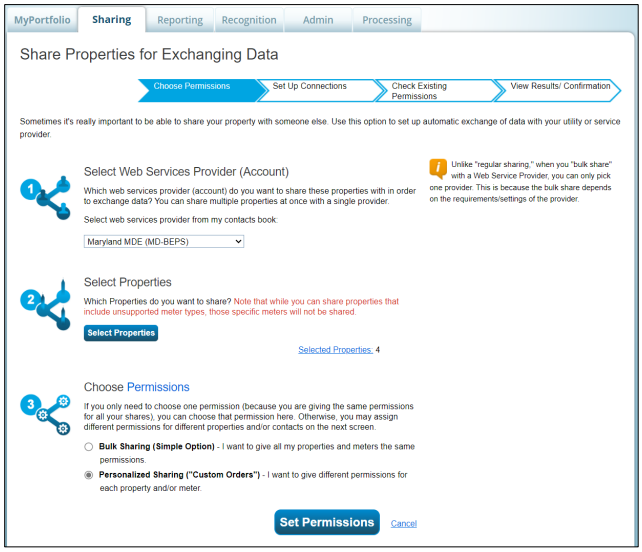


b. Share

Once the connection between the two accounts is established, users can share the property(ies) with MDE's account. To start sharing, go to the Sharing tab.

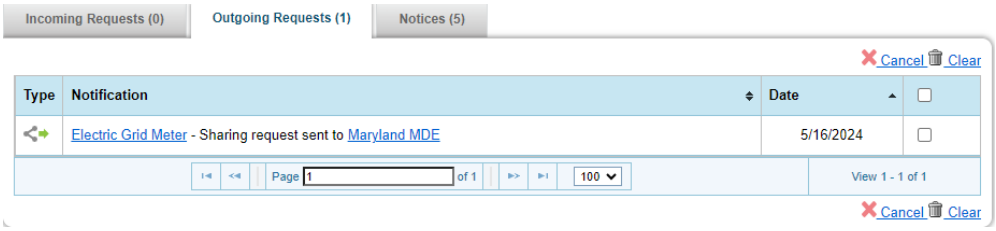
1. On the Sharing tab, click share with **Share with your Utility or Service Provider for exchanging data.**
2. Under the **Select People (Account)** section, select the **MD-BEPS** contact. If you do not see MD-BEPS listed in this dropdown, confirm that you have connected with them and that they have accepted your connection request on the contacts page.
3. Select the properties you want to share by clicking the **Select Properties** button. You can select a single property, multiple properties, a group of properties or all properties in your account. Click **Apply Selection**.

4. Under the **Choose Permissions** section, select the **Personalized Sharing & Exchange Data ("Custom Orders")** option and click **Set Permissions**.
    a. On the next **Select Permissions for Each Contact** page, check the **Read Only Access** and **Exchange Data** radio buttons.
    b. On the next **Choose Permissions** screen, select the **Exchange Data Read Only Access (with read-only access to all properties and meters)** option and click **Apply Selections & Authorize Exchange**.

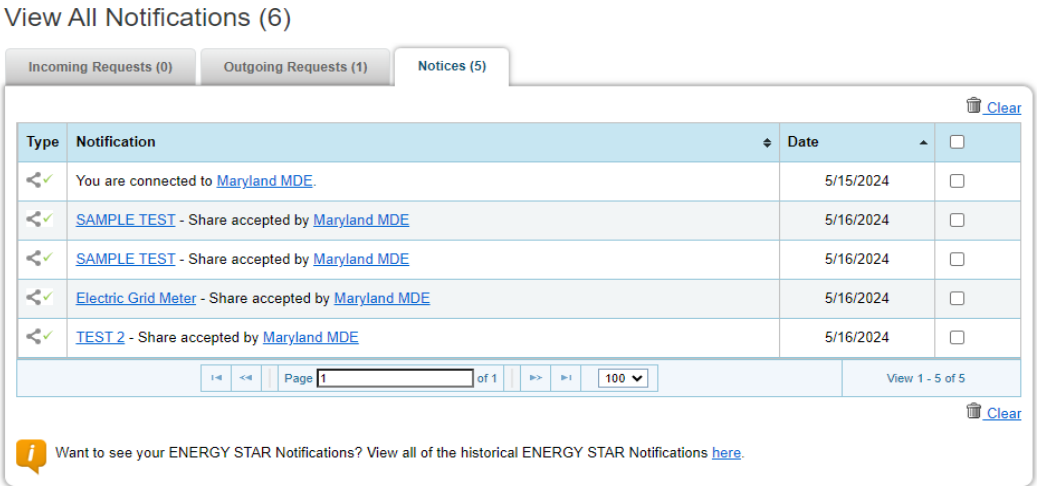


After you share your property, you will receive two (2) alerts in the Notification section:

1. When a share request is sent to MDE (See screenshot below), and



2. When the MDE account has accepted your sharing request (See screenshot below).



Once the MDE account has accepted your sharing request, compliance with the BEPS regulation will be determined based on your Portfolio Manager account information by the reporting deadline.

c. Transfer a Building to Another Portfolio Manager Account When Selling a Building

Before a buyer signs a contract for the purchase of a covered building, the building owner selling the covered building needs to disclose to the prospective buyer that the building is subject to BEPS and transfer:

- A copy of the complete benchmarking record from the benchmarking tool;
- Documentation of data verification;
- Documentation of any alternative compliance fee made to the Department; and
- Any other records relevant to maintain compliance with BEPS

One way to provide a complete benchmarking record is to transfer a copy of the building in Portfolio Manager to the new owner's Portfolio Manager account. To transfer a copy of the building into another account, the new owner must work with the prior owner (property data administrator in Portfolio Manager) to transfer the property into your account.

1. First, you must create a copy of the current property.
    a. From the bottom right of the property's **Summar**y tab, you can select "copy" as long as you have at least "Read" access to all the meters.
    b. You do not have to be the Property Data Administrator (PDA or owner) to make a copy, but you will become the PDA of the newly copied property.
2. Then you can transfer ownership of the copy
    a. Under the **MyPortfolio** tab, click the Transfer Ownership link.
    b. Select the building(s) to be transferred, select the new account owner (new building owner), and click the **Transfer Property** button.

Note: In addition to transferring data, the new owner must submit a B*EPS Benchmarking: Change of Ownership Form* in the BEPS Portal to notify the Department that a new owner is now responsible for the building and its compliance with BEPS.

5. Manage Shared Properties

Review the properties you have shared. On the Sharing tab:

- View sharing requests in the Sharing Notifications section.
- Ensure that all data shared with MDE has Read Only Access.
- View your sharing contacts and the properties you have shared in the table at the bottom of the page.
    - Click on a contact's name to view their account information and the list of properties you can access.
    - Click on the property name to go to its Summary tab. At the bottom of the Summary tab, the Sharing this Property table lists all users with access to the property. **Everyone**

with access to a property will be able to see the names of all others who have access, regardless of their permission levels.

6. Pre-Reporting Deadline Review

a. Review Performance Metrics

Once the energy use and property data has been collected, the building owner must ensure it has been correctly entered into ENERGY STAR Portfolio Manager. Per the requirements of BEPS, **by June 1st each year, beginning in 2025,** building owners must report data from the previous calendar year which is defined as January 1 to December 31. The Department will determine compliance based on the data shared as of this deadline.

Note: *By default, Portfolio Manager does not display the key benchmarking metrics for MD-BEPS, direct greenhouse gas emissions or weather-normalized site energy use intensity (EUI). See Appendix 3 for how to view these metrics in Portfolio Manager. Building owners can also click this reporting template link to have a simple reporting template loaded into their Portfolio Manager account (if you are logged in).*

Note: *The displayed metrics in Portfolio Manager may not reflect the final performance of the building that year due to exclusions and weather-normalization calculations that will be performed by MDE when determining a building's performance metrics for a given year. This data will be provided to building owners via the BEPS Portal after the compliance deadline.*

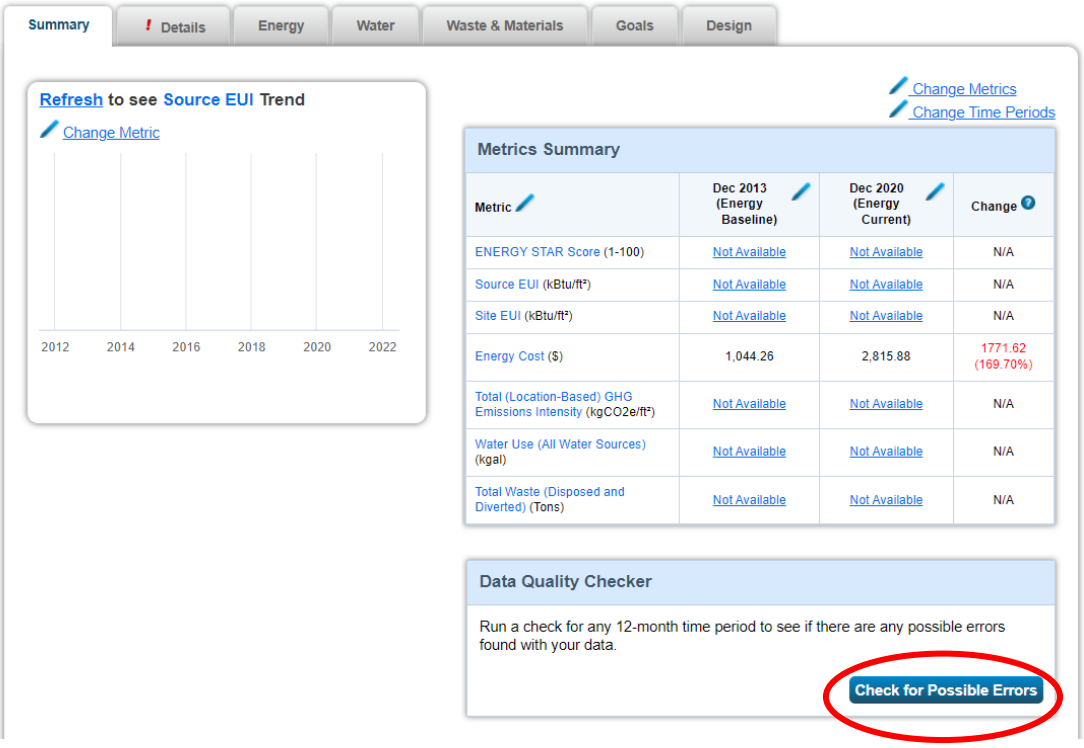
Owners of newly constructed buildings will be required to begin reporting after the first full year of occupancy of the newly constructed building.

Example: A building that is newly constructed and occupied beginning on March 1, 2025, would be required to comply with the June 1, 2027, deadline with data from January 1 - December 31 of 2026. This is because 2026 is the first full calendar year of building occupancy

b. Run The Data Quality Checker

Prior to the June 1 benchmarking deadline each year, the building owner must check the accuracy of the data using the data quality checker built into ENERGY STAR Portfolio Manager. These checks will identify errors in the data such as missing information. If data is missing or inaccurate, then the building owner is required to fix it prior to the reporting deadline. If the building owner is notified of an error by the Department, then the building owner must correct the error within 30 days.

The data quality check can be run from the summary page of an individual building within ENERGY STAR Portfolio Manager. See the screenshot below. See this list[1] of possible alert messages.



7. Third-Party Verification of Benchmarking Data

In 2026 and every 5 years thereafter, verification of the accuracy of the data entered into Portfolio Manager is required. This first review will cover calendar year 2025 data. A third-party verifier must perform this verification by meeting the qualifications outlined in TM 24-01 Appendix A.3.2.2. The current credentials are listed below. This process ensures the credibility of your building's energy benchmarking data.

1. Professional Engineer (PE) issued within the United States;
2. Licensed Architect issued within the United States;
3. Certified Energy Manager (CEM);
4. Building Energy Assessment Professional;

Note: Third party verification cannot be carried out by in-house staff of a building owner/manager that submits a benchmarking report. However, a third-party consultant that fulfills the benchmarking requests to the Department can also act as the third party verifier as long as the third party meets the credentials for a verifier established in the regulation's technical memorandum, TM24-01.

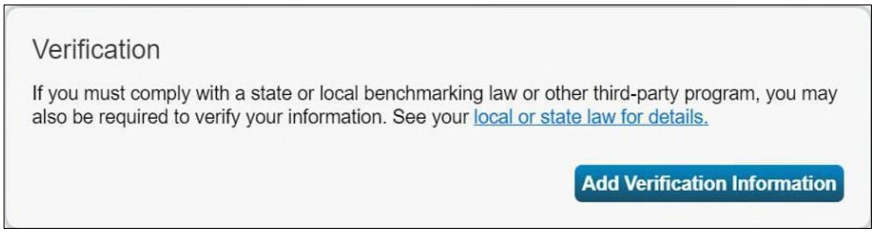
[1] https://www.energystar.gov/buildings/tools-and-resources/list_portfolio_manager_alerts.

The following is a schedule of third-party verification dates. For more details on third-party verification, review section A.3.2.2 in the TM24-01.

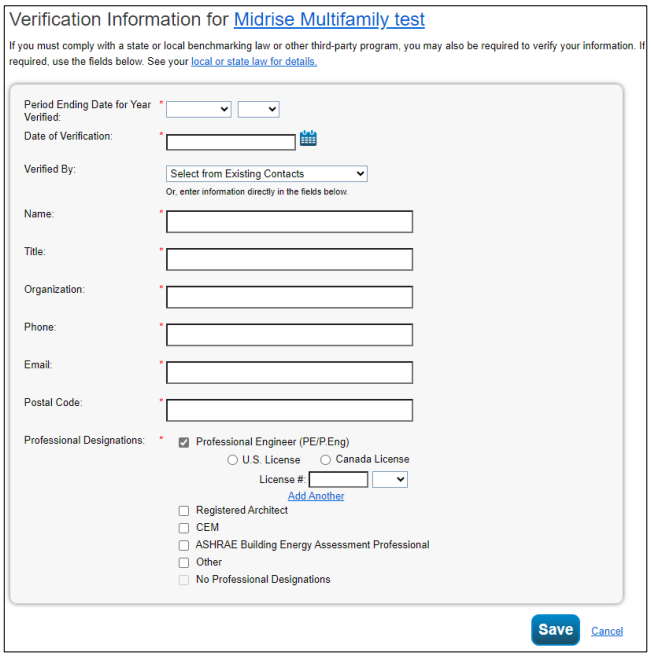
Calendar Year Data Being Verified	Verification deadline MDE
2025	June 1, 2026
2030	June 1, 2031
2035	June 1, 2036
2040	June 1, 2041
Every 5 years following this pattern	

a. Adding a Licensed Professional for Data Verification

1. To add the verification professional's information to a property, navigate to the Details tab in Portfolio Manager and scroll to the **Verification** section at the bottom of the page.



2. Click **Add Verification Information**.
3. Enter the information for the verifying individual, including the license number, and click **Save**.
4. If you need help finding a Licensed Professional, please review the Licensed Professional Finder | ENERGY STAR page.



B. Exclusions & Special Cases

This section covers how to capture energy exclusions for EV charging, parking, outdoor heated pools, and food service facilities in Portfolio Manager for statewide BEPS reporting purposes. Guidance is broken down into three scenarios: where the energy use is separately metered, where the energy use is submetered, and where there is no separate or submetering. This guidance can be used by buildings reporting for multiple purposes, such as for Montgomery County BEPS or ENERGY STAR Certification. It also discusses two special cases: standalone heated pool buildings (Natatoriums) and buildings covered under both Montgomery County and statewide BEPS. For buildings in Montgomery County already benchmarking under the Montgomery County Department of Environmental Protection's (DEP) BEPS, Section 3 details how to use your existing Portfolio Manager account to submit for both jurisdictions. The full list of excluded energy uses from the TM24-01 includes:

1. Food service facilities
2. Electric vehicle charging
3. Other electricity uses that the EPA allows to be excluded from Portfolio Manager:
    a. Cell towers
    b. Parking garages
    c. Outdoor heated pools
    d. A large billboard or projection screen on a building or its parking lot when the sign is not related to the use of the building. A sign displaying the company's name or anything related to the building itself MUST be counted)
    e. Rooftop Broadcast antennas (when the antennas are not related to the use of the building. (A broadcast antenna on a TV Studio MUST be counted)
    f. Trash compactors
    g. Well pumps
    h. Aeration Fountains in retention ponds (used to prevent algae growth)
4. Emissions from required combustion equipment under the following conditions:
    a. A backup generator if federal or state regulation requires a covered building to use a backup generator or other equipment that must run on combustible fuels.
    Note: Exclusion of emissions from required combustion equipment will require an application through the BEPS portal, where additional instructions will be provided.

Note: Portfolio Manager includes additional exclusion guidance for buildings seeking an ENERGY STAR certification. Since MD-BEPS is tracking direct emissions from buildings and not ENERGY STAR certification, only the above-listed exclusions apply.

For information on how to exclude the energy uses above, continue reading.

1. Exclusions

a. Electric Vehicle Charging

Energy use from Electric Vehicle Charging Stations can be excluded. Building owners should, in order of data availability:

1. **Separately metered:** Omit EV charging electricity use and omit the EV charging station as a property type;
2. **Submetered:** Deduct EV charging electricity use via a negative meter (name it "EV Charging Station Excluded Energy") and omit the EV charging station as a property type. Provide details about the chargers in the "Property Notes" section of Portfolio Manager by noting the number and type (Level One, Level Two, or DC Fast) of chargers. Outlets that are specifically dedicated to EV charging may count as a Level One EV charger. If one charging station has multiple plugs that can charge multiple cars simultaneously, then count it as multiple stations. Refer to the EV Charging technical reference for more info.

3. To create a negative meter, navigate to the Energy tab and click **Add a Meter**. On the next page, select the type of energy the space consumes. Next, select the units and the date the meter became active. **Rename this meter to "EV**

Electric Grid Meter

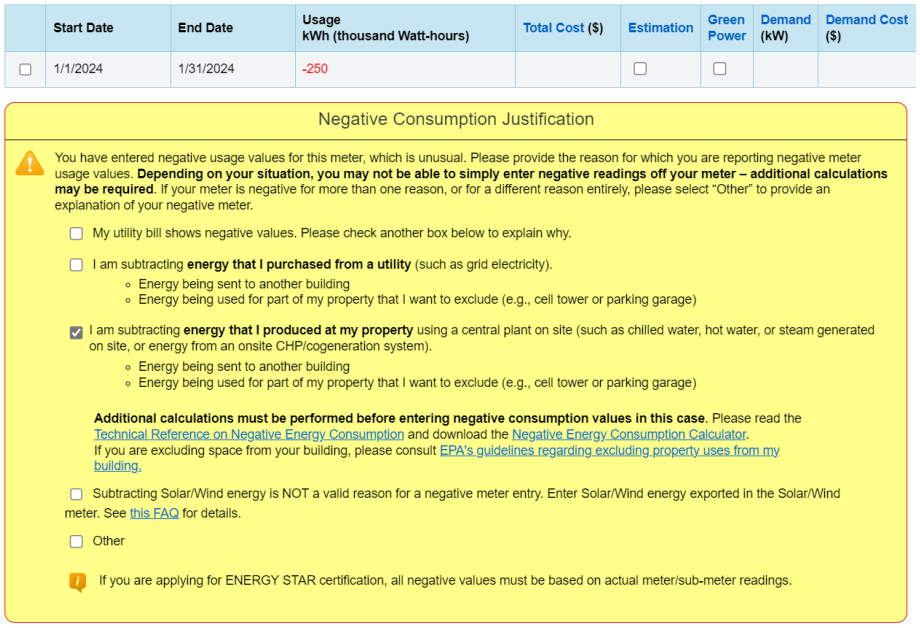
	Start Date	End Date	Usage kBtu (thousand Btu)	Total Cost ($)	Estimation	Green Power	Demand (kW)	Demand Cost ($)
☐	1/1/2024	2/1/2024	-3,573 !		☐	☐		
☐	2/1/2024	3/1/2024	-3,573 !		☐	☐		
☐	3/1/2024	4/1/2024	-3,573 !		☐	☐		
☐	4/1/2024	5/1/2024	-3,573 !		☐	☐		
☐	5/1/2024	6/1/2024	-3,573 !		☐	☐		
☐	6/1/2024	7/1/2024	-3,573 !		☐	☐		
☐	7/1/2024	8/1/2024	-3,573 !		☐	☐		
☐	8/1/2024	9/1/2024	-3,573 !		☐	☐		
☐	9/1/2024	10/1/2024	-3,573 !		☐	☐		
☐	10/1/2024	11/1/2024	-3,573 !		☐	☐		
☐	11/1/2024	12/1/2024	-3,573 !		☐	☐		
☐	12/1/2024	1/1/2025	-3,573 !		☐	☐		

Charging Station Excluded Energy."
On the next page, you will enter meter entries as negative values. Using the

For the ENERGY STAR Portfolio Manager to calculate weather-normalized values, all meters must cover periods no longer than 65 days, hence the requirement for monthly data. All consumption values should be marked with a (-) so the meter(s) function as **negative meters.**

A warning box will appear indicating that negative values have been entered. Select the third justification option, "I am subtracting energy that I produced at my property…" Review the ENERGY STAR Portfolio Manager EV Charging Technical Reference for more information.

4. **Neither separately metered nor submetered**: Enter EV charging as a property use type and fill out the requested information about the number and type of chargers (see the Portfolio Manager guidance for more details). Portfolio Manager will generate estimated energy use metrics and MDE will subtract these from your performance metrics when determining compliance, although it will not be reflected in Portfolio Manager.



	Start Date	End Date	Usage kWh (thousand Watt-hours)	Total Cost ($)	Estimation	Green Power	Demand (kW)	Demand Cost ($)
☐	1/1/2024	1/31/2024	-250		☐	☐		

Negative Consumption Justification

You have entered negative usage values for this meter, which is unusual. Please provide the reason for which you are reporting negative meter usage values. **Depending on your situation, you may not be able to simply enter negative readings off your meter – additional calculations may be required**. If your meter is negative for more than one reason, or for a different reason entirely, please select "Other" to provide an explanation of your negative meter.

- ☐ My utility bill shows negative values. Please check another box below to explain why.
- ☐ I am subtracting **energy that I purchased from a utility** (such as grid electricity).
  - Energy being sent to another building
  - Energy being used for part of my property that I want to exclude (e.g., cell tower or parking garage)
- ☑ I am subtracting **energy that I produced at my property** using a central plant on site (such as chilled water, hot water, or steam generated on site, or energy from an onsite CHP/cogeneration system).
  - Energy being sent to another building
  - Energy being used for part of my property that I want to exclude (e.g., cell tower or parking garage)

Additional calculations must be performed before entering negative consumption values in this case. Please read the Technical Reference on Negative Energy Consumption and download the Negative Energy Consumption Calculator.
If you are excluding space from your building, please consult EPA's guidelines regarding excluding property uses from my building.

- ☐ Subtracting Solar/Wind energy is NOT a valid reason for a negative meter entry. Enter Solar/Wind energy exported in the Solar/Wind meter. See this FAQ for details.
- ☐ Other

If you are applying for ENERGY STAR certification, all negative values must be based on actual meter/sub-meter readings.

b. Parking

Parking of any type (garage, lot, etc.) is excluded from the building's Gross Floor Area (GFA) to determine whether it is a covered building. The energy use for this parking area can also be excluded. To do this, building owners should, in order of preference:

1. **Separately metered:** Omit parking energy use and do not report the parking and its associated GFA as a property type in the benchmarking report;
2. **Submetered:** Deduct parking energy use via negative meter and do not report parking/parking GFA as a property type in the benchmarking report (name it "Parking Excluded Energy").

To create a negative meter, navigate to the Energy tab and click **Add a Meter**. On the next page, select the type of energy that the space consumes. Next, select **kBtu** for units and the date the meter became active. **NOTE: Rename this meter to "Parking Excluded Energy."**

1 Energy Meter(s) for MDE Sample Office + Retail

Electric Grid Meter

	Start Date	End Date	Usage kBtu (thousand Btu)	Total Cost ($)	Estimation	Green Power	Demand (kW)	Demand Cost ($)
☐	1/1/2024	2/1/2024	-18,683		☐	☐		
☐	2/1/2024	3/1/2024	-18,683		☐	☐		
☐	3/1/2024	4/1/2024	-18,683		☐	☐		
☐	4/1/2024	5/1/2024	-18,683		☐	☐		
☐	5/1/2024	6/1/2024	-18,683		☐	☐		
☐	6/1/2024	7/1/2024	-18,683		☐	☐		
☐	7/1/2024	8/1/2024	-18,683		☐	☐		
☐	8/1/2024	9/1/2024	-18,683		☐	☐		
☐	9/1/2024	10/1/2024	-18,683		☐	☐		
☐	10/1/2024	11/1/2024	-18,683		☐	☐		
☐	11/1/2024	12/1/2024	-18,683		☐	☐		

On the next page, you will enter meter entries as negative values. Using the "Parking – Portfolio Manager-Estimated Site Energy (kBtu)" annual consumption value from the Metrics Summary table, divide the total value by 12 and enter the calculated values as negative monthly entries.

For the ENERGY STAR Portfolio Manager to calculate weather-normalized values, all meters must cover periods no longer than 65 days, hence the requirement for monthly data. All consumption values should be marked with a (-) so the meter(s) function as **negative meters**.

A warning box will appear indicating that negative values have been entered. Select the third justification option, "I am subtracting energy that I produced at my property…"

	Start Date	End Date	Usage kWh (thousand Watt-hours)	Total Cost ($)	Estimation	Green Power	Demand (kW)	Demand Cost ($)
☐	1/1/2024	1/31/2024	-250		☐	☐		

Negative Consumption Justification

You have entered negative usage values for this meter, which is unusual. Please provide the reason for which you are reporting negative meter usage values. **Depending on your situation, you may not be able to simply enter negative readings off your meter – additional calculations may be required**. If your meter is negative for more than one reason, or for a different reason entirely, please select "Other" to provide an explanation of your negative meter.

☐ My utility bill shows negative values. Please check another box below to explain why.

☐ I am subtracting **energy that I purchased from a utility** (such as grid electricity).
- Energy being sent to another building
- Energy being used for part of my property that I want to exclude (e.g., cell tower or parking garage)

☑ I am subtracting **energy that I produced at my property** using a central plant on site (such as chilled water, hot water, or steam generated on site, or energy from an onsite CHP/cogeneration system).
- Energy being sent to another building
- Energy being used for part of my property that I want to exclude (e.g., cell tower or parking garage)

Additional calculations must be performed before entering negative consumption values in this case. Please read the Technical Reference on Negative Energy Consumption and download the Negative Energy Consumption Calculator.
If you are excluding space from your building, please consult EPA's guidelines regarding excluding property uses from my building.

☐ Subtracting Solar/Wind energy is NOT a valid reason for a negative meter entry. Enter Solar/Wind energy exported in the Solar/Wind meter. See this FAQ for details.

☐ Other

If you are applying for ENERGY STAR certification, all negative values must be based on actual meter/sub-meter readings.

Review the ENERGY STAR Portfolio Manager Parking and the ENERGY STAR Score Technical Reference for more information.

3. **Neither:** Enter parking as a property use type and fill out the requested information in Portfolio Manager (see the Portfolio Manager guidance for more details).
    a. For MDE: Portfolio Manager will generate estimated energy use metrics and MDE will subtract these from your performance metrics when determining compliance, although it will not be reflected in Portfolio Manager.
    b. For DEP: The building will be provided with a parking-adjusted final performance standard.

c. Outdoor Heated Pools

If you**r outdoor heated pools** are sub-metered, exclude them from your property. Thus, building owners should, in order of data availability:

1. **Separately metered:** Omit pool energy use and do not report pool as a property type within the building.
2. **Submetered:** Deduct pool energy use via negative meter and omit the pool as a property type (name the negative meter outdoor heated pool excluded energy). For more details on how to enter a negative meter, see the guidance in sections a (EV charging) or b (parking) above.
3. **If neither:** Enter outdoor heated pool as a property type and fill out the requested information in Portfolio Manager (see the Portfolio Manager guidance for more details).
    a. For MDE: Portfolio Manager will generate estimated energy use metrics and MDE will subtract these from your performance metrics when determining compliance, although it will not be reflected in Portfolio Manager.
    b. For DEP: The estimated pool energy use will provide a pool-adjusted final performance standard.

d. Food Service Facilities

This exclusion is specific to MDE's statewide BEPS. COMAR 26.28 defines a Food Service facilities per COMAR 10.15.03.02B (reproduced **unofficially** below for reference, emphasis added):

*"(a) **"Food service facility" means:***

(i) A place where food or drink is prepared for sale or service on the premises or elsewhere; or

(ii) An operation where food is served to or provided for the public with or without charge.

(b) "Food service facility" includes:

(i) A restaurant, coffee shop, cafeteria, short order cafe, luncheonette, tavern, sandwich stand, soda fountain, retail market, or retail bakery outlet;

(ii) A food operation in an industry, institution, health care facility, club, school, camp, church, catering kitchen, commissary, or a similar place in which food or drink is prepared for sale or for service on the premises or elsewhere; and

(iii) A micro market licensed under Business Regulation Article, Title 17, Subtitle 17, Annotated Code of Maryland, and meeting the requirements of this chapter as a food service facility.

(c) "Food service facility" does not include a:

*(i) Facility that offers only prepackaged foods that are not potentially hazardous as specified in §B(55)(c) of [*COMAR 10.15]*;*

(ii) Kitchen in a private home where food is prepared at no charge for guests in the home, for guests at a social gathering that is not a public event, or for service to unemployed, homeless, or another disadvantaged population;

(iii) Food preparation or serving area where food is prepared or served only by an excluded organization;

(iv) Hotel, lodging, or rooming house that serves only a continental breakfast;

(v) Farmer's market or a public event where food products as specified in §B(30)(a) of this regulation are sold;

(vi) Bake sale where only non-potentially hazardous bakery goods, including breads and pastries, are sold in conjunction with a fundraising event; or

(vii) Cottage food business."

Standalone food service facilities that are over 25,000 square feet in Montgomery County will only report to Montgomery County DEP. Food service facilities within other buildings will, in many cases, be excluded from DEP's BEPS reporting based on DEP's definition of a building, which excludes tenant spaces that are less than 25,000 square feet, separately metered for all utilities, and do not share interior area with the rest of the building from benchmarking/BEPS requirements[2]. Otherwise:

1. If the food service facility is **separately metered:**
    a. If not reporting this food service facility energy use to DEP because of DEP's definition of a building[2], continue excluding it;
    b. If it is included in reporting to DEP, ensure that the GFA is entered as one of the "restaurant/bar" property types in Portfolio Manager. This will tell MDE to look for an exclusion. Enter the annual energy use from this separate meter in Custom Use Detail 1, setting the units to kWh if electric, and Custom Use Detail 2, setting the units to therms if fuel-fired. **Name these fields: "food service facility metered [*insert energy type (electric or fuel)*] energy use."** MDE will subtract this energy use from your final performance metrics when determining compliance, although it will not be reflected in Portfolio Manager.[3]
2. If the food service facility is **submetered**:
    a. If not reporting this food service facility energy use to DEP or you are outside of Montgomery County, continue excluding it;

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[2] Montgomery County's benchmarking/BEPS law defines a building as:

(1) any single structure utilized or intended for supporting or sheltering any occupancy, **except if a single structure contains two or more individually metered units operating independently that have stand-alone heating, cooling, hot water, and other mechanical systems, and no shared interior common areas**, or;

(2) two or more structures utilized or intended for supporting or sheltering any occupancy, that:

(A) are serviced by a common energy meter;

(B) have a common heating or cooling system;

(C) share interior common areas; or

(D) whose configuration otherwise prevents an accurate determination of the energy consumption attributable to each individual structure.

[3] Though EPA generally advises including the GFA of small food services spaces as part of the primary property type, in order for MDE to provide a food service exemption, you must report the floor area of any food service areas inside your building as a separate "Restaurant" property type.

b. If it is included in reporting to DEP, ensure that the GFA is entered as one of the "restaurant/bar" property types in Portfolio Manager. This will tell MDE to look for an exclusion.
    i. If all-electric, enter the annual energy use from this submeter in Custom Use Detail 1, setting the units to kWh. **Name this field: "food service facility metered electric energy use."**
    ii. If mixed-fuel, enter electric usage in Custom Use Detail 1 (following the instructions in i) and enter the fuel use in Custom Use Detail 2, setting the units to therms. **Name this second field "food service facility metered fuel energy use."**
    iii. MDE will subtract this energy use from your final performance metrics when determining compliance, although it will not be reflected in Portfolio Manager.

1. **If neither:** Add the appropriate property use type under **"restaurant/bar"** for your food service facility and include the GFA of that property use type. Use the standard deduction formulas for food service facilities listed in Section A.2.1.4.1 of the BEPS TM24-01 (also listed in Table 1 below) to calculate the deductions for your food service facility.
    a. If it is an all-electric facility, enter the calculated energy use in Custom Use Detail 1 in Portfolio Manager. Name this field "food service facility estimated electric energy use" and set the units as kWh.
    b. If a mixed-fuel facility, enter the calculated electric energy in Custom Use Detail 1, naming the field "food service facility estimated electric energy use," and set the units as kWh. Enter the calculated fuel consumption in Custom Use Detail 2, naming the field "food service facility estimated fuel energy use," and set the units to therms. MDE will subtract this energy use from your final performance metrics to determine compliance, although it will not be reflected in Portfolio Manager.

Food Service Facility Type	**Electric factor** (kWh/ft^2)	**Fuel factor** (therms/ ft^2)
All-electric	67.2	*N/A*
Mixed-fuel	70	0.376
Portfolio Manager field (multiply by ft^2 and enter)	*Custom Use Detail #1*	Custom Use Detail #2
User-defined title	*Food Service Facility [Metered or Estimated] Electric Energy Use*	Food Service Facility [Metered or Estimated] Fuel Energy Use

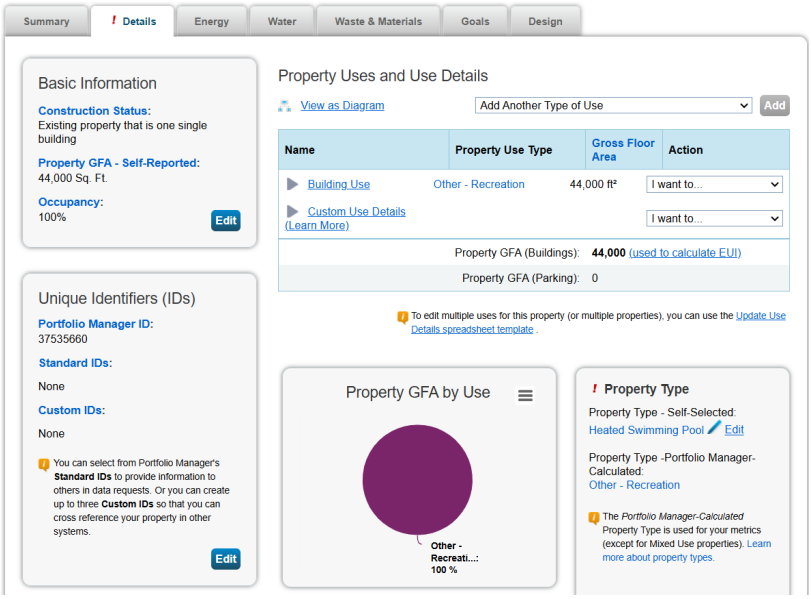
Table 1. Standard deduction formulas for food service facilities without separate or submetered energy use, per MD BEPS TM24-01.

2. Special Case: Indoor Heated Pools

Outdoor heated pools and their energy/emissions can be excluded from reporting for both jurisdictions (see Section C above). Indoor heated pools must be reported for statewide BEPS and have a property type and associated direct emissions standard. Standalone pool buildings (commonly referred to as natatoriums) have a different process than pools included within another building. Portfolio Manager's best practice is to benchmark natatoriums as an "Other-Recreation" property type. Below, MDE provides additional guidance to ensure these buildings are evaluated against the indoor heated pool standard.

For standalone pool buildings:

- Set the property type as "Recreation," and once selected, select "Other-Recreation" when asked "more specifically."
- Enter the property details as required and "add property," including other use types as needed within the building (e.g., a gym)
- Once the property has been created, click on the "details" tab and edit the "property-type - self-selected."
- Change the "more specifically" question to "heated swimming pool."
- The data quality checker will warn that the self-selected property type does not match the use type. This is acceptable to ignore as it is how MDE obtains the building's GFA and that it is a pool.



For pools within another building:

- Benchmark the building as normal and add a use type of "recreation" by selecting "heated swimming pool" under "more specifically?"

- Choose the closest approximate pool size (Olympic, short course, recreational), and note it is indoors. If there are multiple pools, add several use types.
- MDE will use the standard pool size you select in calculating area-weighted emissions standards.

3. Special Case: MDE Statewide BEPS and Montgomery County DEP Benchmarking Alignment Guidance

This section provides guidance on aligning submissions for buildings covered under both jurisdictions' requirements.

a. Data Submission

Montgomery County and Maryland's statewide benchmarking requirements use ENERGY STAR Portfolio Manager as the benchmarking and reporting tool. Building owners can share data separately with both Montgomery County DEP and the State of Maryland via Portfolio Manager. Building owners in Montgomery County must simply connect and share their property in Portfolio Manager with both the Maryland Department of Environment (MDE) and the Montgomery County Department of Environmental Protection (DEP). After sharing, DEP also requires benchmarking reports to be submitted via the Montgomery County Building Energy Benchmarking Reporting Portal (see directions here). For more information on how to do this, please refer to each jurisdiction's guidance (Section A of this document for statewide BEPS and this document for buildings in Montgomery County). The above exclusions guidance and the following sections provide guidance on how to handle slight differences in the BEPS requirements for both jurisdictions using a single Portfolio Manager entry for your covered building.

b. Building Definitions

Certain buildings in Montgomery County might report multiple parts of their building separately or exclude certain tenants. They must report if those buildings meet the covered building definition for MDE. A common example would be a strip mall. Under the statewide BEPS requirement, a strip mall is considered one covered building, and the building's GFA and energy use includes that of all tenants. Under Montgomery County BEPS[4], usually only the anchor tenant is covered.

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[4]See footnote 1 above for the Montgomery County BEPS building definition.

For statewide BEPS (from COMAR 26.28.01.02B(15)): *(a) "Covered building" means a building that is a commercial or multifamily residential building in the State of Maryland or is owned by the State of Maryland and has a gross floor area of 35,000 square feet or more, excluding the parking garage area, and is:*
(i) A single building;
(ii) One or more buildings held in the condominium form of ownership with a combined gross floor area of 35,000 square feet or more, excluding the parking garage area, and governed by a single board of managers; or
(iii) Two or more buildings with a combined gross floor area of 35,000 square feet or more, excluding the parking garage area, that are served in whole or in part by the same electric or gas meter or are served by the same heating or cooling system or systems, which is not a district energy system.

The easiest way to benchmark for dual compliance in this scenario is to effectively use a “campus" framework for your individual building. You should create a “parent” property in Portfolio Manager that includes any “child” properties already being reported to DEP and add in any parts of the building not already reporting to DEP as part of the “parent” property itself. By reporting the “parent” property to MDE using the MDE UBID and the “child” property(s) to DEP using the MBID, the building owner can leverage the same portfolio manager properties for dual compliance. For more information, refer to Portfolio Manager’s “How to benchmark a campus” guide.[5]

Note: when creating “parent” properties, you must ensure that all “child” property energy meters are shared with the “parent” property with “*full access*.”

c. Exclusions

Follow the guidance provided in the Exclusions section above, paying special attention to the handful of cases where guidance is written specifically for those buildings already reporting to DEP.

d. Third-Party Verification

If the data submission in any year must be verified by a third party for both the state and the county, building owners are advised to use a verifier with the credentials required by the state and follow the requirements for both jurisdictions' verification. The same verification report can satisfy the requirements for both jurisdictions.

[5] The metrics for a “parent” property do not automatically "roll up" information from its “child” properties. If you would like to associate the same meter(s) to both a parent property and its child, you must add the meters to the individual child property first, and then associate the meters to both the parent and child property. If, after reading the guidance above, you still have questions, Portfolio Manager has extensive FAQs on the topic.

C. MD BEPS Campus Compliance Guide

This section explains the Campus Compliance Pathway, which allows Maryland building owners to meet BEPS standards at the campus level instead of the individual buildings level. **In short, a campus is a group of two or more adjacent buildings with shared energy systems or utilities, benchmarked as a single property in ENERGY STAR Portfolio Manager.** Owners must include energy use and emissions data for all campus buildings and equipment. This section provides guidance on required forms, managing changes to campus structures, and benchmarking buildings not owned by the principal campus owner.

Note: campuses have the same compliance deadlines and reporting requirements as individual buildings

What is a Campus and What Are the Campus Compliance Pathway Requirements?

The *campus compliance pathway* is a flexibility afforded to Maryland buildings that meet the department's definition of a campus.

A campus is a collection of two or more buildings of any building type or size that act as **a single cohesive property** with a single shared primary function and are owned and operated by the same party. The owner of a covered building may submit an application to meet net direct emissions standards, as specified under the BEPS regulation, at the campus level instead of the individual building level when two or more covered buildings are:

(1) Connected to a district energy system;
(2) Served by the same electric or gas meter; or
(3) Served by the same heating or cooling system(s), which is not a district energy system.

Campuses have the same reporting and compliance deadlines as single-building covered properties. Benchmarking data must be entered into ENERGY STAR Portfolio Manager by June 1st every year. The report should have all data from the previous calendar year (January 1- December 31). Campus-level reporting shall include energy consumption and fuel meters for all buildings and stationary equipment located on the campus, including all central plants.

Several building types covered under Maryland's BEPS are allowed to benchmark as a campus when applying for ENERGY STAR certification whether or not they meet the above Maryland definition:

- Multifamily Housing
- Hospital
- Hotel
- Senior Living Community

In providing maximum flexibility under MD-BEPS, the Department will allow co-located buildings of the above listed building types that would qualify for campus-level benchmarking for ENERGY STAR

certification purposes to benchmark as a campus automatically. Building owners with these buildings will only need to submit the campus compliance pathway forms if their buildings are listed as multiple buildings on the covered buildings list so that the covered building list can be updated. For more information, see the Portfolio Manager FAQ on campuses here.

1. Benchmarking and Reporting as a Campus:

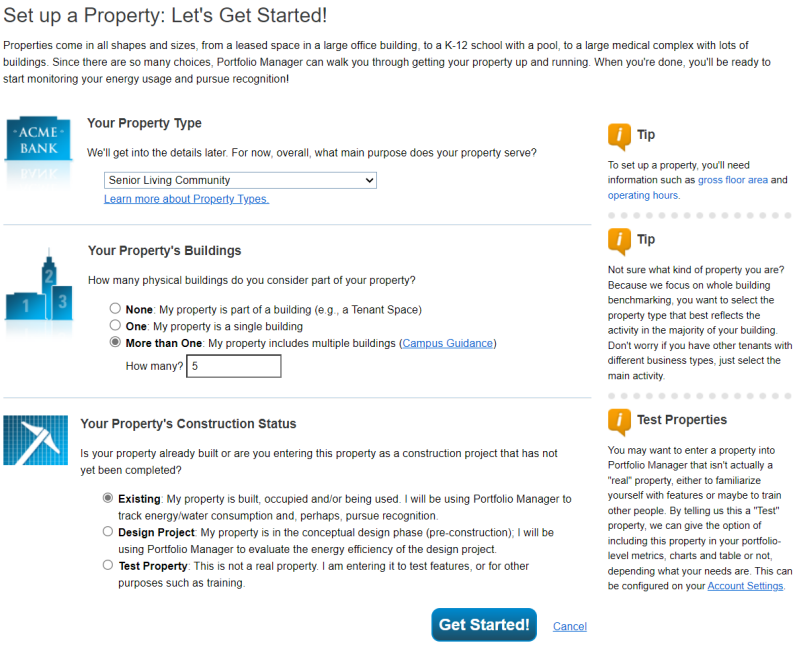
Campuses reporting to MDE under the campus compliance pathway only need to submit whole campus-level data. It must include:

1. Energy consumption and fuel use for all buildings
2. Energy consumption and fuel use for all stationary equipment, including all central plants and district energy plants, even if those plants are combined heat and power facilities.

Campus-level reporting does not include energy consumption and fuel use from activities and/or sources that are excluded from the benchmarking report requirements. **Building owners submitting a campus do not need to break down each building's energy use in Portfolio Manager, and they can provide aggregated data for all their buildings via one main campus entry in Portfolio Manager.** If a campus owner is already benchmarking individual buildings on their campus or they would prefer to have more granular data in Portfolio Manager to provide operational insights, the individual buildings can be benchmarked separately and linked to a "parent property" campus for reporting to MDE. See Appendix 2 and the EPA's How to Benchmark a Campus | ENERGY STAR guide to learn more about this optional approach.

In Portfolio Manager, benchmark your campus using the "My property includes more than one building" option from the "Add a Property" page. Enter the number of buildings. Then, add the energy use and other required data for the entire property into Portfolio Manager.

Figure 1. Example of how to begin entering a campus into Portfolio Manager.



a. Steps for Benchmarking as a Campus:[6]

1) Submit a "Campus-Level Compliance Pathway Selection Form" through the BEPS Portal on the BEPS website. Completing this form will initiate a process with MDE to

[6] Please refer to Section A for specific instructions for steps 2-6.

identify all the buildings on the campus and develop campus-level BEPS standards. The form includes an online table with the following information for every building on the campus:

- Building Name
- Street address, city, county, zip code
- Gross floor area
- Portfolio Manager property use types for each campus building and square footage for each use type
- UBIDs for buildings already included on the covered building list
- Latitude and longitude that falls within the footprint of the building (only required for buildings not given a UBID). *To find this on Google Maps, right-click on the location on the map, look at the top of the pop-up window for the latitude and longitude in decimal format. To copy the coordinates, left click on them.*
- Note if the building is not owned by the principal owner of the campus and therefore excluded from campus-level calculation.

2) Receive approval of your campus compliance application from MDE and proceed with benchmarking your campus. While your application is being reviewed, you can still gather all the requisite energy data for step 3.
3) Benchmark the campus in Portfolio Manager.
    a. MDE will generate a **campus UBID** that captures your entire campus and provide this after your campus compliance pathway application has been approved.
4) Connect with MDE's Portfolio Manager account (**MD-BEPS)**.
5) Receive connection approval from **MD-BEPS**.
6) Once the connection between the two accounts is established, users can share the relevant property(ies) with MDE's account.
7) Once the MDE account has accepted your sharing request, compliance with the BEPS regulation will be determined based on the information in your Portfolio Manager account on June 1 of each year.

Note: See Appendix 2 for more guidance if you are already benchmarking some or parts of the campus in Portfolio Manager

Note: If a building is on a campus but is separately metered and has no shared systems, you can benchmark and report ONLY the individual buildings over 35,000 square feet. This is the standard BEPS approach and building owners should follow the guidance in Section A.

b. Making Changes to Buildings Covered Under MDE's Campus Compliance Pathway

- If the situation on your campus changes in a subsequent year, submit to MDE the "Changes to Campus Buildings Reporting" form on the BEPS Portal.

c. Benchmarking Buildings on a Campus not Owned by the Principal Campus Owner

- Both the Principal campus owner and the building owner will need to agree to this.
- Submit to MDE via the BEPS Portal on the BEPS website the "BEPS Request to Benchmark as a Campus for Buildings on a Campus not Owned by the Principal Campus Owner" form.

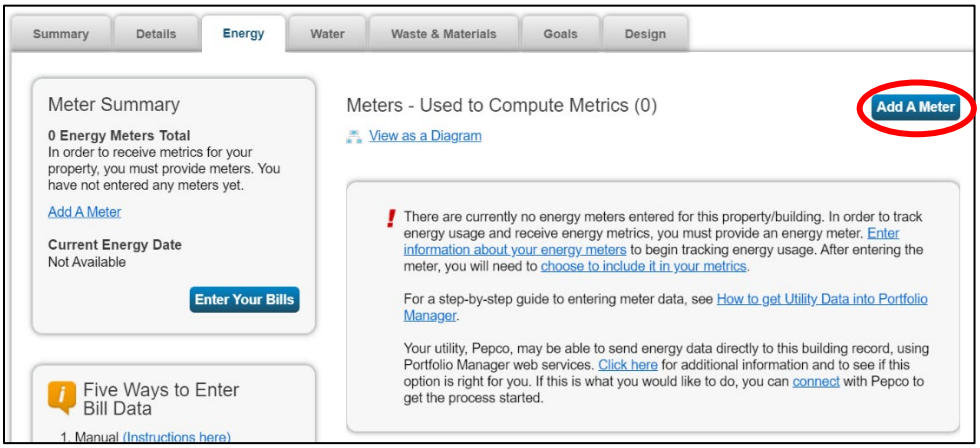
D. MDE Guidance for Benchmarking District Energy

This section explains how owners of covered buildings under Maryland's BEPS can benchmark their properties that receive energy from a district energy system using the ENERGY STAR Portfolio Manager no-cost benchmarking tool. In addition to following the steps below, you must complete the *BEPS Benchmarking: District Energy: Building Owner Reporting District Energy Emissions Factors* form.

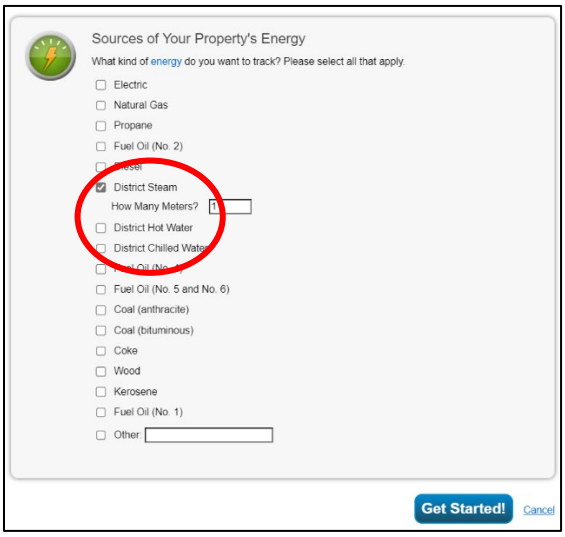
1. Benchmarking District Energy on a Single-Building Property

To benchmark district energy on a single-building property, create a Portfolio Manager account and add a property as outlined in the 'Create an Account in Portfolio Manager' and the 'Add a Property to Portfolio Manager' sections of the MDE Benchmarking Guide. To add a district energy meter, follow the steps below.

1. On the Energy tab, select **Add a Meter**.



2. On the next page, select the source(s) of your property's energy. Select **district steam**, **district hot water**, or **district chilled water**, depending on the district energy source for your building. Click **Get Started**.
3. Proceed with entering meter details and usage data for this district energy meter using one of the outlined methods in Section A (spreadsheet upload or manual entry).
    a. **If you buy** district steam, hot water, or chilled water from a utility company then you should enter these meter types with the units and quantity you see on your bill.



Note: If you produce district steam, hot water, or chilled water from your own central plant (e.g. from a boiler or chiller at your property) then you do not enter your district steam, hot water, or chilled water. Instead, you enter a meter for the fuel that you purchase to power your plant (such as natural gas or fuel oil).

2. Benchmarking District Energy on a Campus

For campuses that rely on district energy, you must decide if you will benchmark the entire campus as a multi-building property or each individual building as its own single-building property. The standard (default) approach under MD-BEPS is to benchmark at the building level.

a. Benchmarking as a Campus

Maryland's Campus Reporting Guide compliance pathway allows campuses to be benchmarked as multi-building properties all under one reporting property to MDE (see Section C). This will likely be the simplest case for campuses with district energy systems as it allows all input energy to the campus (including fuel inputs to the district energy plant) to be reported as one entry and does not require allocating district energy to individual buildings. For more information on campus compliance, see Section C.

b. Benchmarking Individual Buildings

If you are benchmarking each individual building, then **you will need to have metering at the building level** to measure the steam, hot water, chilled water, etc. that is input into the building as well as any inputs into your district plant. Let's suppose you have a three-building campus (Buildings A, B, and C). You have a boiler in Building A that takes natural gas as an input fuel and creates steam, which is distributed to all three buildings. Building C is under 35,000 square feet and thus not covered. You will need to submeter the following:

1. Amount of natural gas that goes into your boiler in Building A
2. Amount of steam used by each building (A, B, and C)

Note: MD-BEPS does not specify the accuracy of submeters but building owners are reminded that they are required to provide accurate, actual metered energy use data and that their submitted data is subject to third party verification.

Enter the steam that goes into each building.

The steam is treated as if you purchased it from your local utility. As a result, campuses taking this approach will need to meet the requirements of a district energy provider in 26.28.02.04B, "Reporting Requirements of District Energy Providers." In short, this means they will need to submit a *BEPS*

Benchmarking: District Energy: District Energy Providers' Emission Factors form documenting the emissions factors for their district energy system's outputs (e.g. steam or hot/cold water) and the calculations that show this. The detailed requirements can be found in Section D.1.2 of the BEPS technical memorandum, TM24-01, that accompanies the BEPS regulation.

So, for example, if you purchased 120 kBtu of natural gas for the boiler in Building A for use across Buildings A, B, and C, and it is converted to 100 kBtu of steam:

1) Measure and report the steam usage for each building in Portfolio Manager:

- Building A uses 30 kBtu of steam
- Building B uses 50 kBtu of steam
- Building C uses 20 kBtu of steam

2) In this example, you would enter a steam meter in the individual Portfolio Manager records for Buildings A and B (since C is not covered). **You would not** enter the Natural Gas Meter in Portfolio Manager.

3) You would have to submit a *BEPS Benchmarking: District Energy: Building Owner Reporting District Energy Emissions Factors* form on the BEPS Portal for each covered building using steam (or another medium) from your district energy plant in addition to the single *BEPS Benchmarking: District Energy: District Energy Providers' Emission Factors form* for the district energy plant on your campus.

Appendix 1. ENERGY STAR Portfolio Manager Resources

ENERGY STAR offers training on a range of topics, including Portfolio Manager guidance, as listed below.

Basic Functionality

- Benchmark Your Building With Portfolio Manager | ENERGY STAR
- Training | ENERGY STAR
- An Overview of Portfolio Manager | ENERGY STAR
- Portfolio Manager Quick Start Guide | ENERGY STAR

Data Entry

- How to Get Utility Data into Portfolio Manager | ENERGY STAR
- Demo Videos | ENERGY STAR
- Portfolio Manager Data Collection Worksheet | ENERGY STAR
- What constitutes a campus?
- How do I benchmark a campus?
- How do I benchmark a campus of buildings that receive energy from a shared heating/cooling system?

Upload Templates

- How do I use the simple spreadsheet upload? (site.com)
- How do I add properties in bulk using spreadsheet upload templates?

Sharing Data

- How to Share Properties with Other Users in Portfolio Manager | ENERGY STAR

Onsite Renewable Energy Tracking

- How to Benchmark Onsite Renewables in Portfolio Manager | ENERGY STAR
- How do I enter onsite green power (solar/wind)? Part 1- Create Meters
- How do I enter onsite green power (solar/wind)? Part 2 - Enter Data
- How do I enter onsite green power (solar/wind)? Part 3 - Net-Metering
- How do I enter onsite green power (solar/wind)? Part 3a - Net-Metering without the needed data
- How do I enter onsite green power (solar/wind)? Part 4 - Net-Metering for utility updated meters

Water Use Tracking

- How is water tracked in Portfolio Manager? (site.com)
- How do I enter my water bills that I only pay quarterly (or bi-monthly)? (site.com)
- What is irrigated area? (site.com)

Greenhouse Gas Emission Tracking

- How Portfolio Manager Calculates Greenhouse Gas Emissions | ENERGY STAR
- Portfolio Manager Technical Reference: Greenhouse Gas Emissions | ENERGY STAR
- Tracking Greenhouse Gas Emissions in Portfolio Manager | ENERGY STAR

Appendix 2. Campus Compliance For Those Already Benchmarking in Portfolio Manager

This appendix explains how those who are already benchmarking at an individual building level using the Environmental Protection Agency's ENERGY STAR® Portfolio Manager® tool can report campus-level data to the Maryland Department of the Environment (MDE).

MDE's regulation only requires campus-level data for properties that meet the department's definition of a campus.

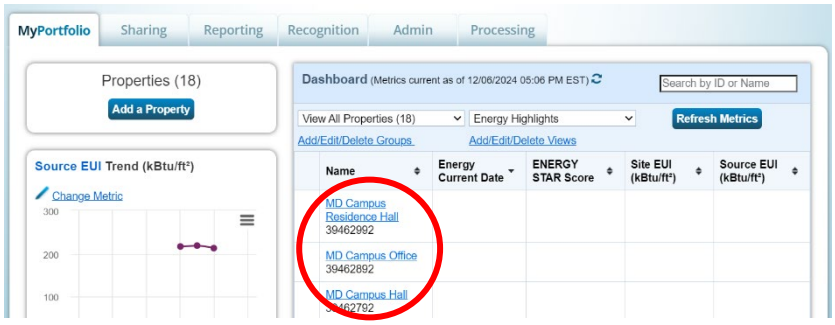
	Scenario A: **Whole Campus Reporting**	**Scenario B:** **Building Level Reporting**
Buildings Included	All buildings regardless of size	Only buildings over 35,000 square feet
ENERGY STAR Benchmarking Reporting to MDE	Share a single property record that represents the entire campus	Share a property record for each building
Treatment of Campus-Owned/Operated District Energy/Central Plants[7]	Report plant fuel input(s)	Report district energy consumption by each building
Calculation of DE Factors	Not Needed	Need to follow same emission factor calculation methodology as other district energy providers
District Energy Reporting to MDE	Not Needed	District energy emission factors and supporting documentation
Performance Standards	Blended standard at entire campus level	Building specific standards based on building type(s)

If you have previously benchmarked at an individual building level, follow the steps below to submit your campus-level benchmarking data to MDE in alignment with the EPA's guide, 'How to Benchmark a Campus'.

Note: for campus-level compliance, the Department requires all buildings on the campus to be included. If you are currently benchmarking only some buildings on your campus, you will need to add energy use and property details to the parent property together or as separate buildings that are then associated.

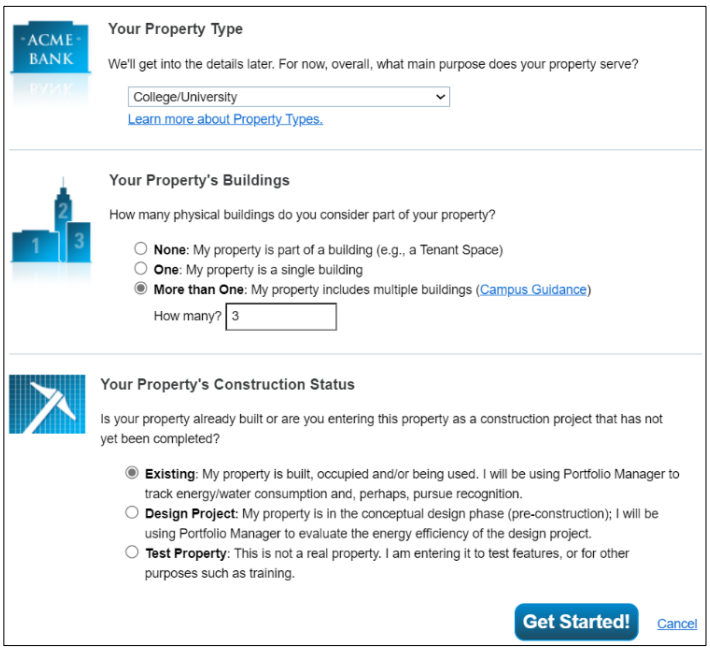
[7] If the district energy/central plant is owned/operated by a third-party, you can either report their fuel input(s) or their steam delivery to the campus.

1. Identify the individual campus buildings that you would like to associate with a campus parent property from the MyPortfolio tab in Portfolio Manager.
2. Next, you will need to create a parent property to group the child properties under. On the



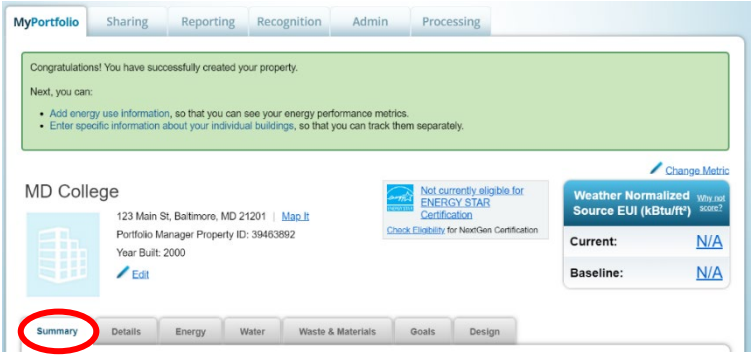
MyPortfolio tab, click **Add a Property**.

   a. On the next page, select the property type from the dropdown that most aligns with your campus.
   b. In the 'Your Property's Buildings' section, select **More than One** and enter the number of buildings on your campus.
   c. Select your campus' construction status.
   d. Click **Get Started**.

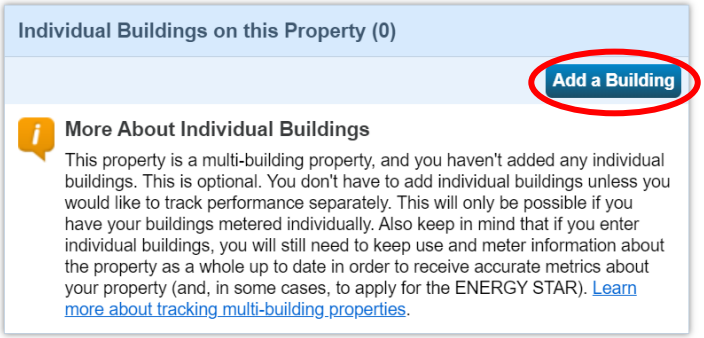


3. On the next page, complete the 'About Your Property', 'Standard IDs', and 'Do any of these apply?' sections. You will need to provide a campus UBID that is created by MDE as part of the campus compliance pathway process. For more information about Maryland Standard IDs, visit the MDE Benchmarking Guide. Click **Continue**.
4. Enter additional campus information on the 'Set up a Property: How is it used?' page. Click **Add Property**.

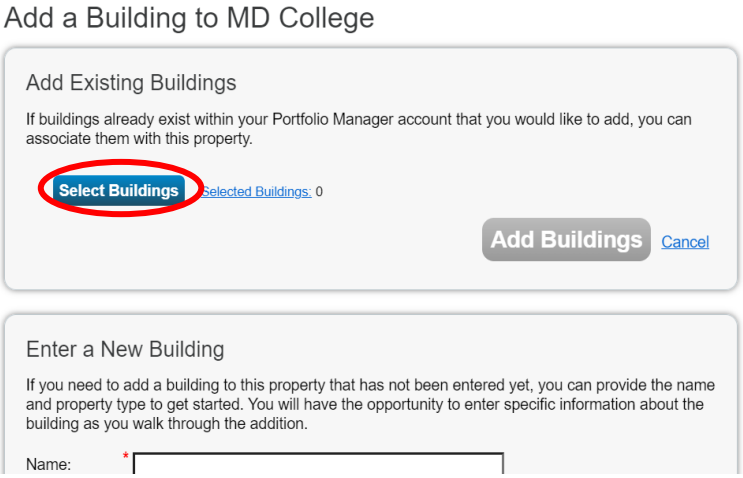
5. Once you have added your campus parent property, navigate to the **Summary** tab within the property profile.



6. Scroll to the 'Individual Buildings on this Property' section. Click **Add a Building**.

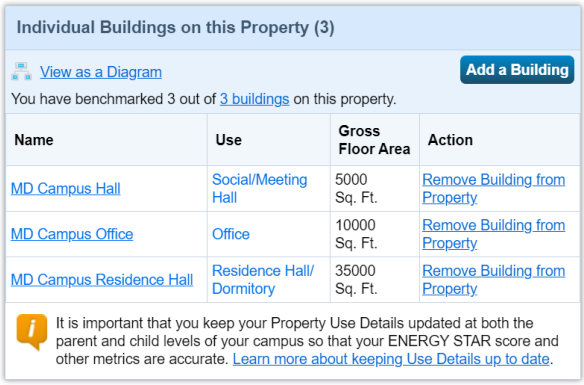


7. The next page, 'Add a Building to MD College" presents two options: **Add Existing Buildings** or **Enter a New Building**. Because the individual buildings on this campus have already been created and benchmarked in Portfolio Manager, use the **Add Existing Buildings** section. Click **Select Buildings**.

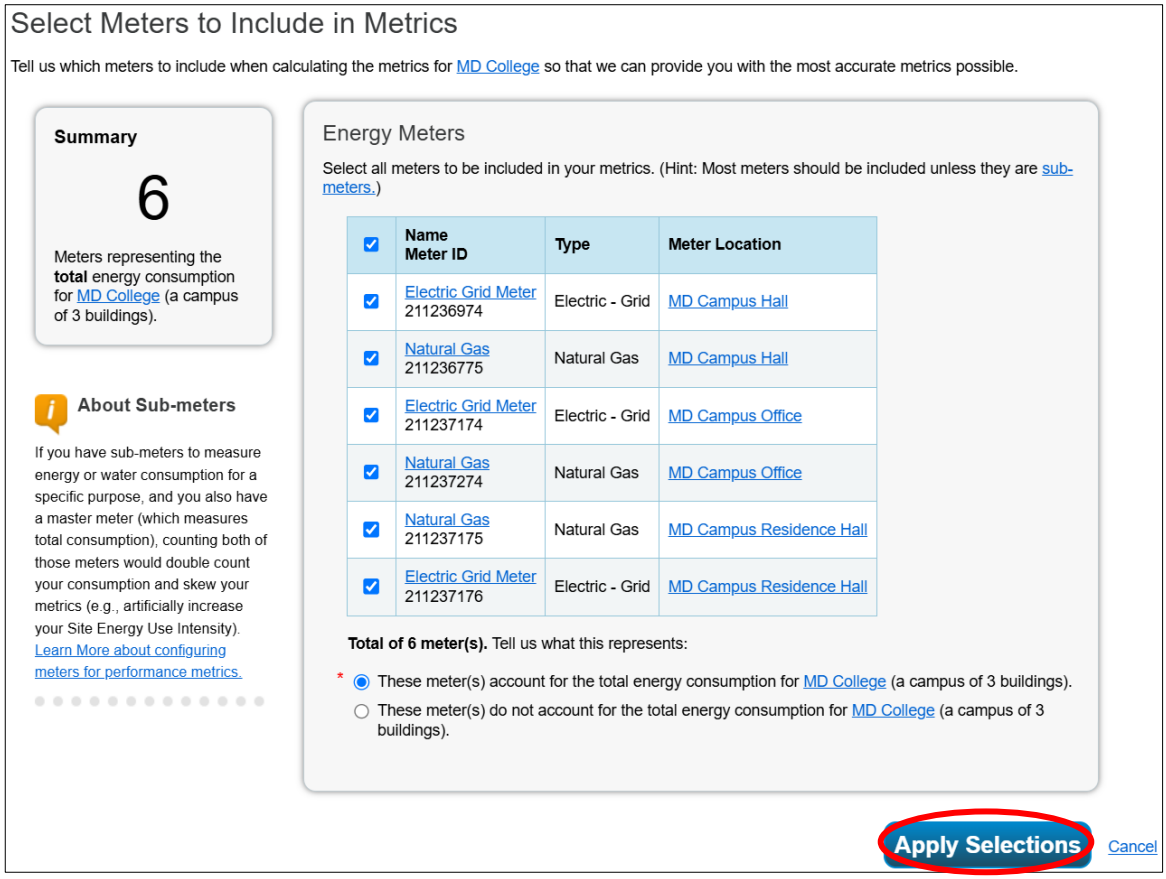


   a. In the pop-out window, select the existing properties that you would like to group within the campus.
   b. Click **Apply Selection**.
   c. Once you have successfully selected the child properties, click **Add Buildings**.

d. Next, select the meters associated with the child properties that you would like to associate with the parent property. Confirm that the selected meters account for the total energy consumption for the campus. Click **Apply Selections**.



e. A green banner will appear indicating that the individual child meters were



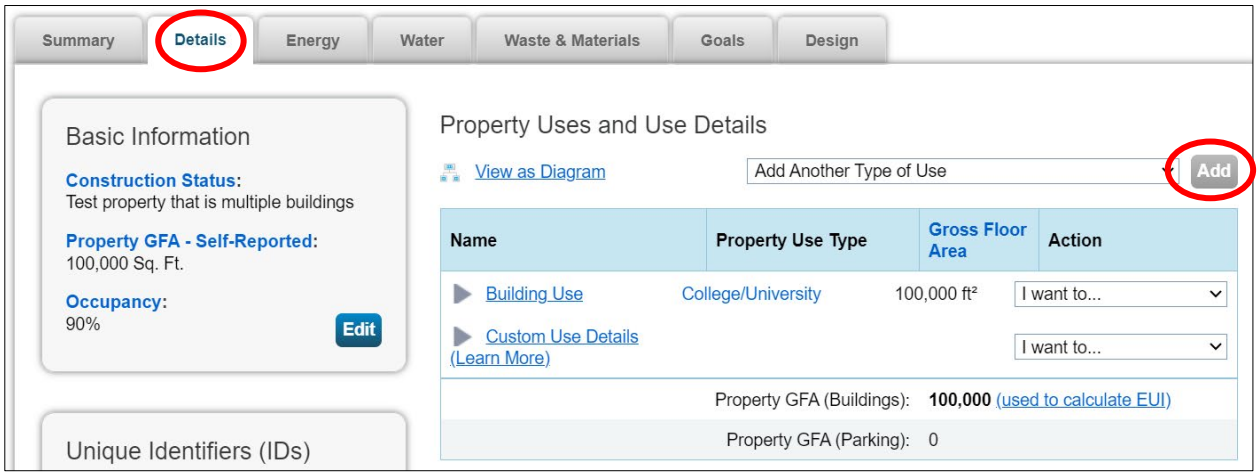
successfully associated with the parent property. In addition, the 'Individual Buildings on this Property' section will populate.

8. Share the **parent property** with MDE following the Connect and Share instructions in the MDE Benchmarking Guide.

Note: If your campus has a central plant, do not associate child meters for that consumption with the parent property. You will need to create a new meter within the parent property record to track the central plant input fuel(s). Follow the guidance in the MDE Benchmarking Guide to add meters and enter usage data.

Child level property type information and gross floor area do not “roll up” to a parent property record. As such, you will need to make sure that the gross floor area and property type information in the parent property record are accurate and reflect the entire campus.

1. Navigate to the Details tab of the parent property Portfolio Manager profile. Locate the ‘Property Uses and Use Details’ table.
2. Click the **Add Another Type of Use** dropdown and select the property type that aligns best with



the one property type/use on the campus. Click **Add**.

3. On the resulting page, enter the property details for the property type/use that you are adding. Click **Save Use**.
4. Repeat this process for each property type/use on the campus.

Appendix 3. How to View the Direct Emissions Metric in ENERGY STAR® Portfolio Manager®

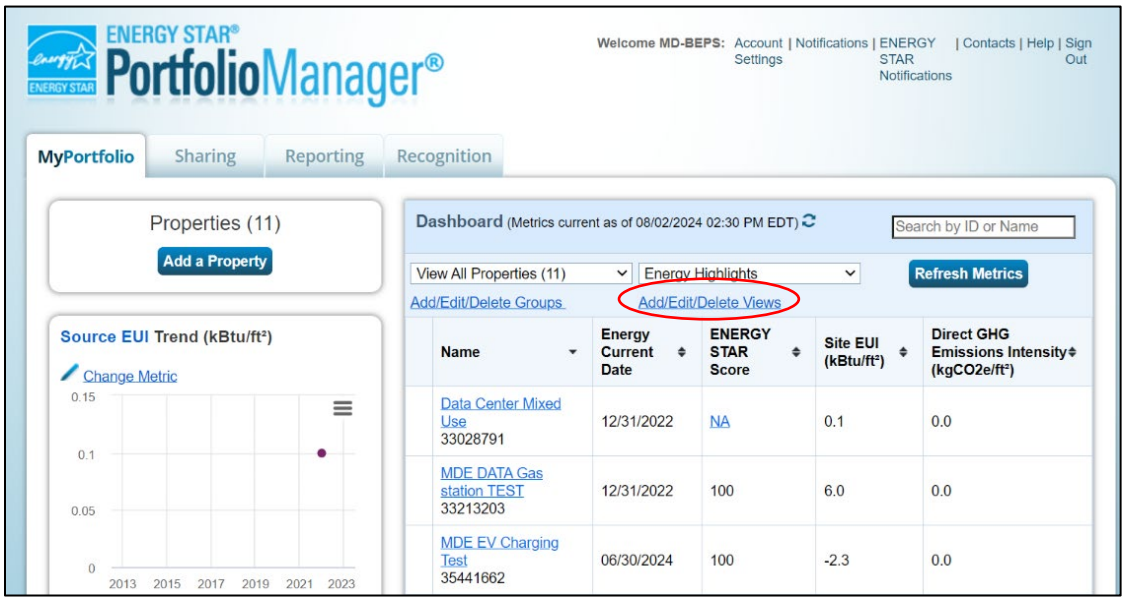
This guidance document explains how owners of covered buildings under the Maryland BEPS can view the direct emissions metrics and other relevant metrics in their ENERGY STAR® Portfolio Manager® accounts. Building owners can also click this reporting template link to have a simple reporting template with both weather-normalized site Energy Use Intensity and Direct Greenhouse Gas Emissions loaded into their Portfolio Manager account (if you are logged in). If you run this report on your covered buildings, it will provide these key metrics automatically.

Alternatively, you can manually add your own metrics following the steps below.

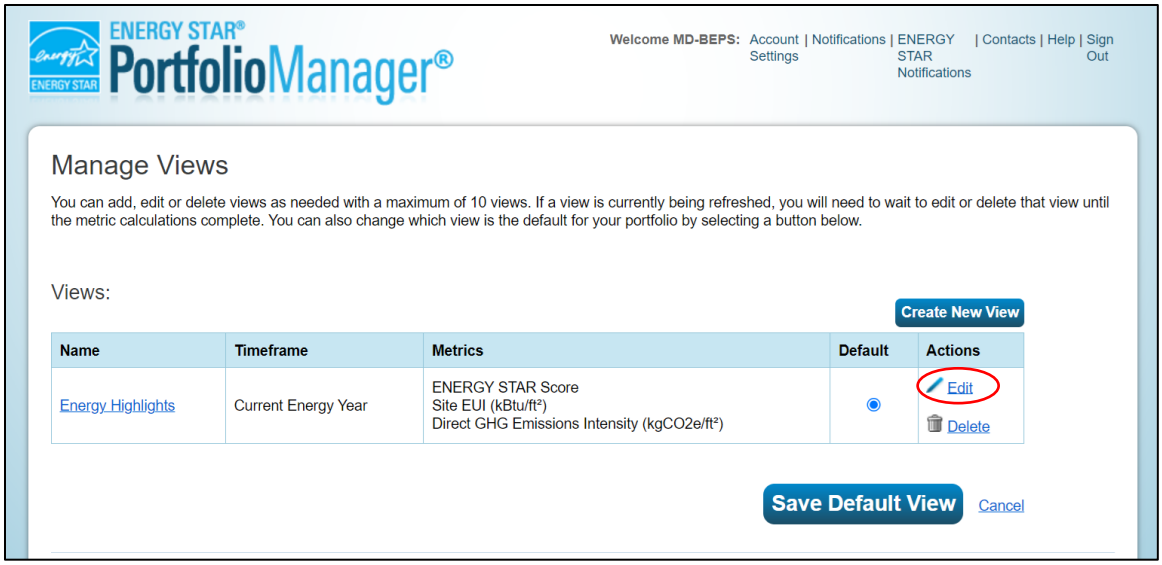
Note: MDE will be calculating official performance metrics for all buildings after the compliance deadlines to account for exemptions, exclusions, weather-normalization, etc. While this guidance on viewing performance metrics in PM is intended to provide building owners with an estimate of their current performance, official BEPS performance will be provided directly by MDE.

Adding Metrics to Your Property Dashboard

1. In Portfolio Manager, on the **MyPortfolio** tab, click **Add/Edit/Delete View**.



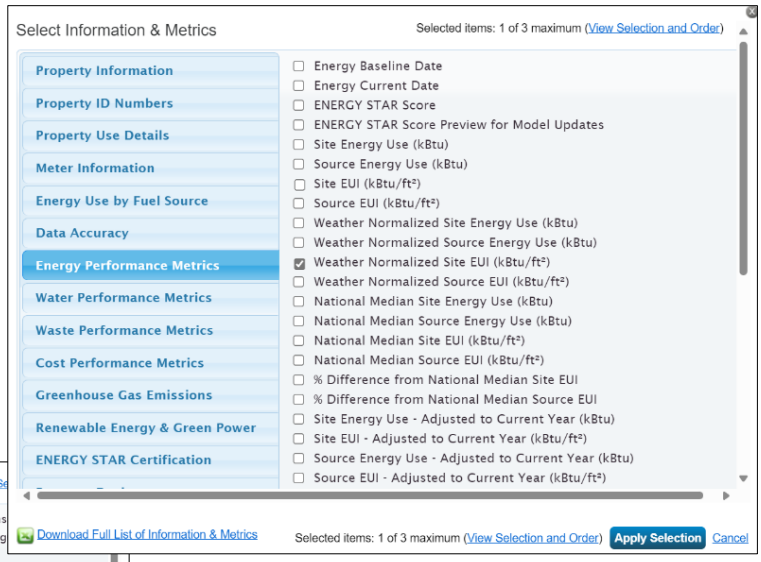
2. Click **Edit** under the Actions column. Or create a new view if desired.

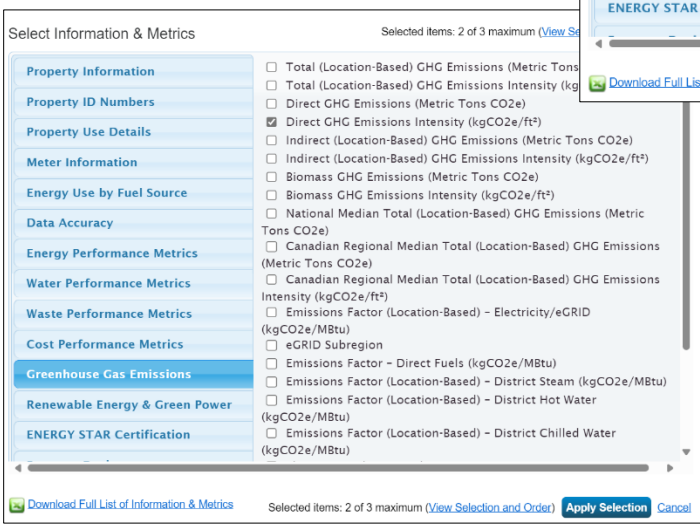


3. Then, you'll be directed to the **Edit Portfolio View: Energy Highlights** page. Click **Select Information & Metrics** under step 3.
    a. Because there is a maximum of 3 metrics that can be selected at a time, you will most likely need to deselect a metric before selecting any new metrics.

b. Select **Weather Normalized Site EUI (kBtu/ft2)** and **Direct GHG Emissions Intensity (kgCO2e/ft2)** from the navigable sidebar since these are the reporting requirements in MDE BEPS.

i. **Weather Normalized Site EUI (kBtu/ft^2)** is located under Energy Performance Metrics.

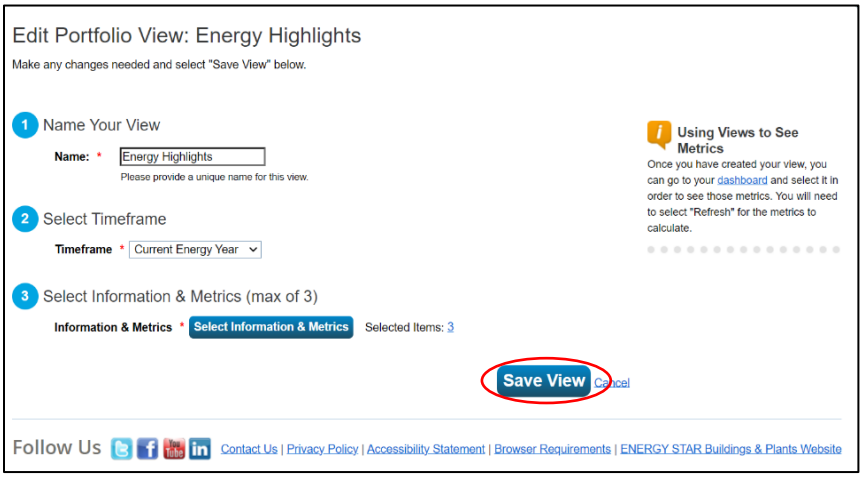




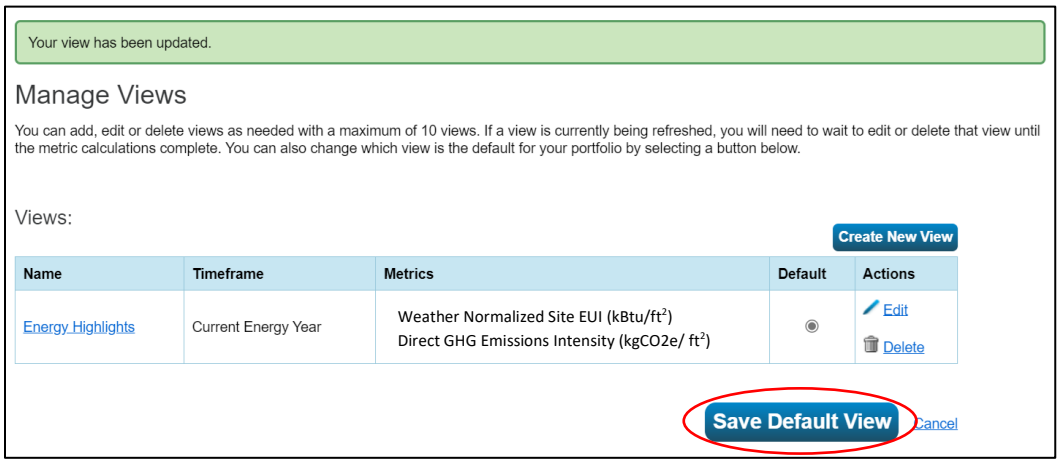
ii. **Direct GHG Emissions Intensity (kgCO2e/ft^2)** is located under Greenhouse Gas Emissions.

c. Click **Apply Selection**.

4. Back on the **Edit Portfolio View: Energy Highlights** page, click **Save View**.



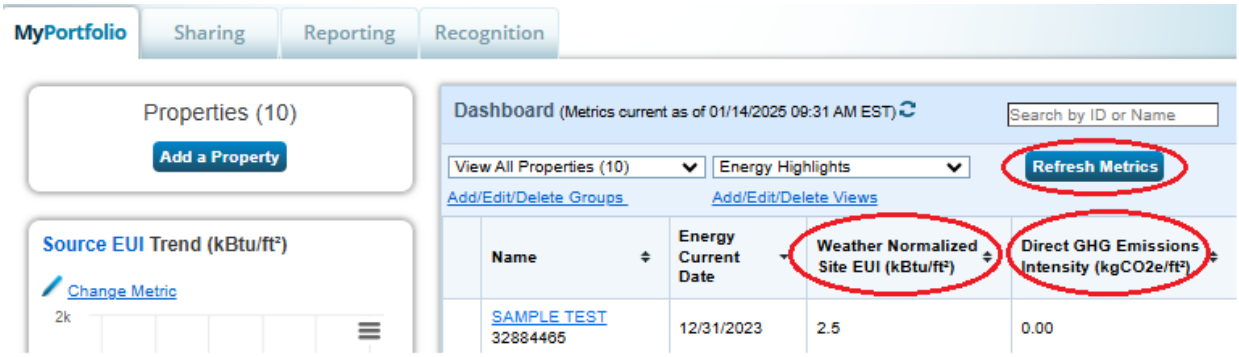
5. On the **Manage Views** page, click **Save Default View**.



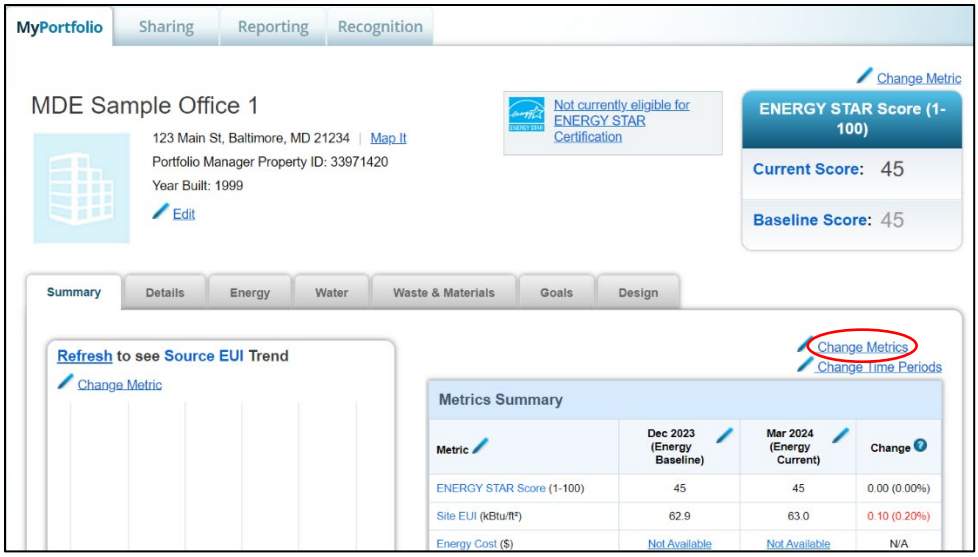
6. Navigating back to the **MyPortfolio** tab, you should see both the Weather Normalized Site EUI and the Direct GHG Emissions Intensity metrics in your property dashboard. Click **Refresh Metrics** to populate the table.

Adding Metrics to an Individual Property's Page

1. On the Summary tab of an individual property's page, locate the Metrics Summary table. If you do not see **Weather-Normalized Site EUI (kBtu/ft²)** and/or **Direct GHG Emissions Intensity (kgCO2e/ft2)** in the table, add them with the following steps.



2. Click **Change Metrics**.



3. Because there is a maximum of 7 metrics that can be selected at a time, you will most likely need to deselect a metric before selecting any new metrics.
4. Select **Weather Normalized Site EUI (kBtu/ft2)** and **Direct GHG Emissions Intensity (kgCO2e/ft2)** from the navigable sidebar.
    a. **Weather Normalized Site EUI (kBtu/ft2)** is located under Energy Performance Metrics.
    b. **Direct GHG Emissions Intensity (kgCO2e/ft2)** is located under Greenhouse Gas Emissions.
5. Leave and/or add any other metrics you deem appropriate for your own awareness.
    a. Additional metrics that might be useful if building owners have exempted energy use: Electric Vehicle Charging Station - Portfolio Manager-Estimated Site Energy (kBtu), Parking - Portfolio Manager-Estimated Site Energy (kBtu) and Heated Swimming Pool - Portfolio Manager-Estimated Site Energy (kBtu). These metrics are located under the Property Use details tab
6. Click **Apply Selections**.
7. On the **Summary** tab, you should see both the Site EUI and the Direct GHG Emissions Intensity metrics in the Metrics Summary table.