How to Benchmark a Campus in Portfolio Manager

Basic instruction on using the Portfolio Manager program is provided in 5-minute **Express Videos** on the EPA Portfolio Manager website. Other helpful information is available on the ENERGY STAR for Buildings **Training** webpage.

Talk to your agency, college or university's Energy Lead Person for instructions on using your agency master Portfolio Manager account, and sharing with other accounts in your agency. Your agency point of contact may instruct you to use the established master account which bears your agency name, or may instruct you to create an account and share access with the college or agency master account.   Each agency will organize their accounts according to their need to manage and access information internally. Your account will have a username and password. You control access to your account. You can share your properties and energy/water meters with other users, and you define what level of access they have (read only, entering utility data, and/or updating facilities characteristics). Determine who in your agency needs access, and what type, when deciding how to share your properties and meters. Please ensure that account details, such as name and email address, are updated when a new person takes responsibility for your Portfolio Manager account.

Within Portfolio Manager, you can benchmark single building properties, as well as multi-building properties (more commonly referred to as campuses). Benchmarking a campus allows you to measure the energy and water performance of single-building properties, while also tracking how these properties contribute to campus-wide performance. In this document the campus-building relationship, and the meters serving the campus, are described using the following terms:

Campus-level terms: Campus // Multi-building property // Parent Property

Building-level terms: Building // Single-building property // Child Property

Utility meter: A meter provided by the electric utility, natural gas utility, or other utility, for which you receive and pay an energy bill. In most cases, the sum of energy measured by all the utility meters entering the campus accounts for all the energy used by the campus buildings. (Some campuses must also account for energy from solar panels or other energy producing systems, or energy deliveries such as propane.)

Owner-installed building meter: A meter installed by the property owner to measure the energy use of a single building. The energy measured by an owner-installed building meter should not be counted in the campus energy use because it has already been counted on the utility meter.

Definitions of other Portfolio Manager terms are available at
https://portfoliomanager.energystar.gov/pm/glossary

Follow the steps in this document to benchmark your campus. Refer to **Appendix A** for detailed answers to frequently asked questions about campus benchmarking.

1 **Create Buildings**

The first step in creating a campus is to create buildings that occupy the campus. This process follows the same steps as benchmarking a single-building property.
Note: See the **Express Videos** on the EPA Portfolio Manager website for more about adding a new property, including how to use an upload template to add multiple properties.

Steps to Benchmark a Campus:

1. Create Buildings
2. Create Campus
3. Add Buildings to Campus
4. Add Meters and Energy Data
5. Confirm Meter Configurations
6. Review Your Campus
7. Share with DES

A. Once you've set up your account and logged in, click "**Add a Property**" on the **My Portfolio** tab.

B. <u>Your Property's Primary Function</u> **-** Select the primary function that best describes the use of the building. See the Identify Your Property Type page for definitions. If no listed property type describes the primary function of the building, choose "Other."

C. <u>Your Property's Buildings</u> - Select "One." At this step ignore the "More than One" option as it only applies to setting up a campus (see Step 2).

D. <u>Your Property's Construction Status</u> - Select "Existing Building."

E. Click the **Get Started** button.

F. <u>About Your Property</u>

   a. **Name – Use this format**: Agency abbreviation Campus Building name (for example, **DOC SCCC Admin Building** or **WSU Vancouver Library).** *Please don't use special characters like commas and dashes.*

   b. Enter address and other required fields.

G. Click the **Continue** button.

H. <u>Property Use Detail</u> – Hover over each detail for definition of each. (*Gross Floor Area should be filled out for you from previous screen.*) You can check the Temporary Value box to use the entered data as a placeholder. Gross floor area must be entered for each building. Other fields, such as number of workers or computers, are optional for campus buildings which are not separately metered. Please complete all fields for buildings that are separately metered.

I. Click the **Add Property** button at the bottom of the screen.

J. **Enter the Office of Financial Management (OFM) Facility Inventory System (FIS) Unique Facilities Identification (UFI) number for each building:** Find the property within the My Portfolio tab, and click on its name to open up the record. Then, click on the "**Details**" tab. In the "**Unique Identifiers**" box at the bottom left side of the page (you will need to scroll down), select "**Edit**." In the "**Standard IDs**" box at the bottom of the page, use the drop-down menu to choose "**State of Washington Unique Facilities Identifier (UFI)**. Enter only the 6 character alphanumeric UFI in the ID field to the right. Be sure to click on "**Save**" at the very bottom of the page.

Standard IDs

Standard IDs are those typically used as part of a data request by an organization (such as a State or local government, or LEED). If you know your property is going to be part of a data request, you may need to select and specify the relevant ID here.

Standard ID(s):

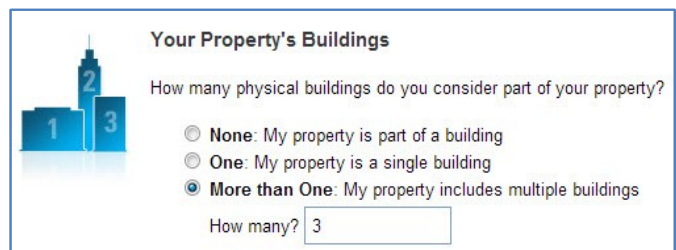| State of Washington Unique Facilities Identifier (UFI) ▼ | ID: | A00321 |

➕ Add Another

K. Repeat process for each building on your campus.

(2) Create Campus

Create the campus and identify the buildings associated with it. This process follows the same steps as benchmarking a single-building property.

Note: See the **Express Videos** on the EPA Portfolio Manager website for more about adding a new property, including how to use an upload template to add multiple properties.

A. Click **Add a Property** on the **My Portfolio** tab. This property will be referred to as the parent property or campus.

B. **Your Property's Primary Function -** Select the primary function that best describes the majority use of your campus. See the Identify Your Property Type page for definitions. If no property type describes the primary function of the campus, choose "**Other.**"

C. **Your Property's Buildings** - Select "**More than One**" and input the number of buildings within that campus.

D. **Your Property's Construction Status** - Select "**Existing Building.**"

E. Click the **Get Started** button.

F. **About Your Property**

 a. **Name – Use this format**: Agency abbreviation Campus (for example, **DOC SCCC** or **WSU Vancouver**). *Please don't use special characters like commas and dashes.*

 b. Enter address and other required fields.

G. Click the **Continue** button.

H. **Property Use Detail** – *Hover* over each detail for definition of each. (*Gross Floor Area should be filled out for you from the previous screen.*) You can check the "**Temporary Value**" box to use the entered data as a placeholder. Please complete all fields. Details such as gross floor area or number of workers on the main shift should be the aggregate of all the buildings on the campus. For example the campus gross floor area should be the sum of the gross floor areas of all the campus buildings.

I. Click the **Add Property** button at the bottom of the page.

3 Add Buildings to Campus

A. Click on the **Summary tab** of the campus that you want to add the building to.

B. Click the **Add a Building** button.

C. Search for the existing buildings by name, location, or Portfolio Manager ID.

D. Check the box next to the buildings you want to add to the campus.

E. Click the **Add to Property** button.
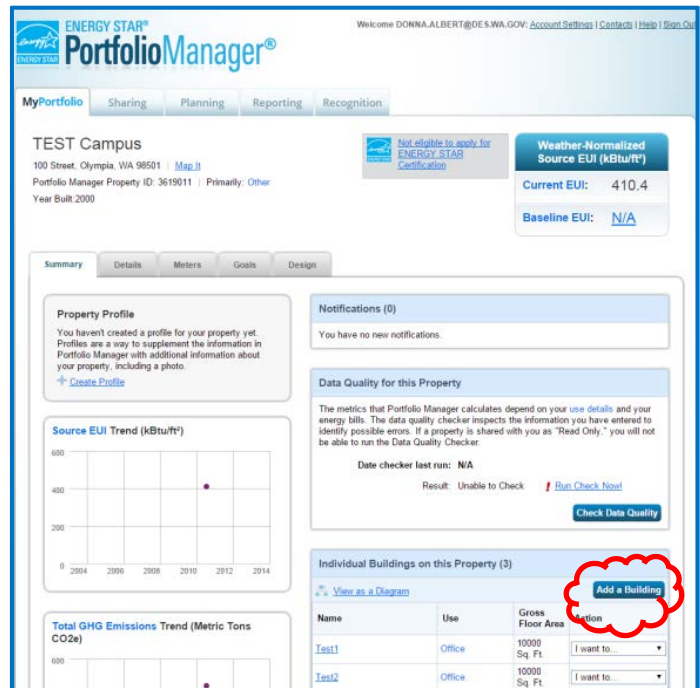
On the **MyPortfolio** tab, all your buildings and campuses will be available to view and edit. A drop down arrow to the left of the campus name and will reveal all of the buildings associated with that campus.

Note: Property use information from buildings doesn't automatically roll up to the campus level. If you make changes to a Building's use details, be sure to update the Campus to reflect these changes. Keep property types and square footages up to date in both the Building details and the Campus details. More information is provided in **Appendix A**.

4 Add Meters and Energy Data

The next step in creating a campus is to add meters that track building-level and campus-level energy consumption. Utility meters that serve more than one building on a Campus must be added at the Campus level. Meters that measure the energy consumption for a single-building property can be added at the Building level.

Meter data can be entered at the building or campus level:

- Add a meter in Portfolio Manager at the building level only if a building has its own meters, and those meters account for all of the energy used in that building.

- Add a meter in Portfolio Manager at the campus level when a meter serves more than one building.

If your utility offers automated data entry, request it for all your utility meters. Follow the utility's instructions to automate benchmarking, and skip to Step 5 **"Confirm Meter Configurations**." If your utility does not offer automated data entry, you can make use of the spreadsheet upload templates referenced in Step 1 above or follow the instructions below for manual entry:

To Create a Meter for a Building

Go to the **Meter** tab for that building and click **Add a Meter**. Follow these steps:

A. **Sources of Your Property's Energy** - Select the source or sources of your property's energy usage. It will prompt you to identify source and the number of meters.

> **Note**: If your fuel source doesn't have a meter, put a 1 in the box.
>
> **Note**: If you want to add water meters, the choice is yours.

B. Click **Get Started** button.

C. Enter "**Units**" and "**Date Meter became Active**" for each meter. The date that a meter becomes active must be after the year built date of the property.
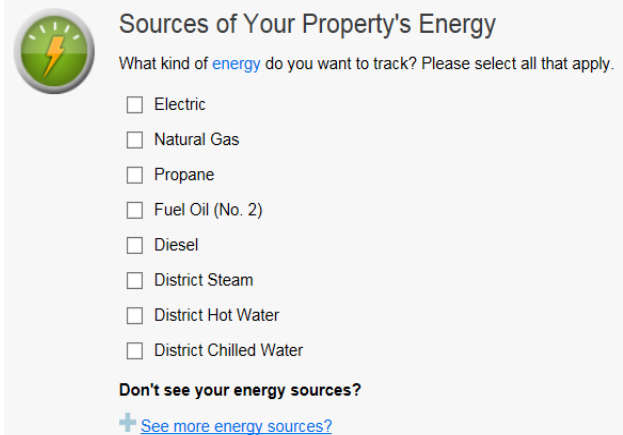
Sources of Your Property's Energy
What kind of energy do you want to track? Please select all that apply.
- [ ] Electric
- [ ] Natural Gas
- [ ] Propane
- [ ] Fuel Oil (No. 2)
- [ ] Diesel
- [ ] District Steam
- [ ] District Hot Water
- [ ] District Chilled Water

Don't see your energy sources?
➕ See more energy sources?

> **Note:** If it is a bulk fuel purchase, such as a propane delivery, we recommend selecting the "**Enter as Delivery**" checkbox so that the tool does not require you to provide monthly entries for that fuel type in order to receive performance metrics.
>
> **Note:** Change the meter name here to help you identify which meter is which. Start each meter name with the meter number that appears on the utility bill.

D. Click **Create Meters** button.

E. If you have no data entries to make, click the **Continue** button.

F. **Property Totals** – Select "**These meter(s) account for the total energy consumption for this property.**"

G. Click the **Apply Selections** button.

H. In each Building property, click on the **Meters** tab to view the building meters you have created.

I. Click on **Click to Add an Entry** under the meter and enter energy data. Enter energy data for all meters that includes at a minimum all of the most recent full year from January 1 through December 31. Check **Estimation** if the data you are entering is not actual measured data.

J. Enter **Cost** to track your savings.

To Create a Meter for a Campus

Go to the **Meter** tab for that campus and click **Add a Meter**. Follow these steps:

A. <u>**Sources of Your Property's Energy**</u> - Select the sources of your property's energy usage and the number of meters at the property for each fuel source.

> **Note**: If your fuel source doesn't have a meter, put a 1 in the box.

> **Note**: If you want to add water meters, the choice is yours.

B. Click **Get Started** button.

C. Enter "**Units**" and "**Date Meter became Active.**" The date that a meter becomes active must be after the year built date of the property.

> **Note:** If it is a bulk fuel purchase, such as a propane delivery, select the "**Enter as Delivery**" checkbox so that the tool does not require you to provide monthly entries for that fuel type in order to receive performance metrics.

> **Note:** Change the meter name here to help you identify which meter is which. Start each meter name with the meter number that appears on the utility bill. Consider describing the meter location in the name.

D. Click **Create Meters** button.

E. If you have no data entries to make, click the **Continue** button.

F. <u>**Property Totals**</u> – Select "**These meter(s) account for the total energy consumption for this property.**"

G. Click the **Apply Selections** button.

H. In the Campus property, click on the **Meters** tab to view meters you have created.

I. Click on **Click to Add an Entry** under the meter and enter energy data. Enter energy data for all meters that includes at a minimum all of the most recent full year from January 1 through December 31. Check **Estimation** if the data you are entering is not actual measured data.

J. Enter **Cost** to track your savings.

For additional information about metering issues specific to campuses, see **Appendix A**.

⑤ Confirm Meter Configurations

After you enter meter data at the campus and building levels, you must indicate the meter configuration for each Building and for the Campus as a whole. For campuses, you must indicate if and how a building-level meter is associated with the campus in order to calculate accurate campus-level metrics.

A. In the Campus, go to the **Meter** tab and click on the "**View/Edit Configuration**" button in the **Meters for Performance Metrics** box.

> *a.* Check the box next to each Campus meter in the **Property Totals** box.
>
> *b.* Do not check any boxes next to any Building meters, unless they are utility meters (for which you receive a utility bill).
>
> *c.* Always choose "These meter(s) account for the total energy consumption of this property," for each meter." Never try to show partial energy use for a campus.

B. At each blue arrow, view the meters for each building and:

> *a.* Check the box next to each Building meter ONLY IF THOSE METERS ACCOUNT FOR ALL ENERGY THAT BUILDING USES. If the meters listed do not account for all energy that building uses, leave the boxes unchecked.
>
> *b.* Select "**These meter(s) account for the total energy consumption for this property**."
>
> *c.* Click on **Apply Selections** button.

Note: If energy consumption on a building meter is also being captured by a master meter at the campus level, the building meter data should not be included in the campus energy consumption totals, as this would double count the energy consumption data. Each meter for which you get a bill from energy utilities must be included in the campus energy use total.
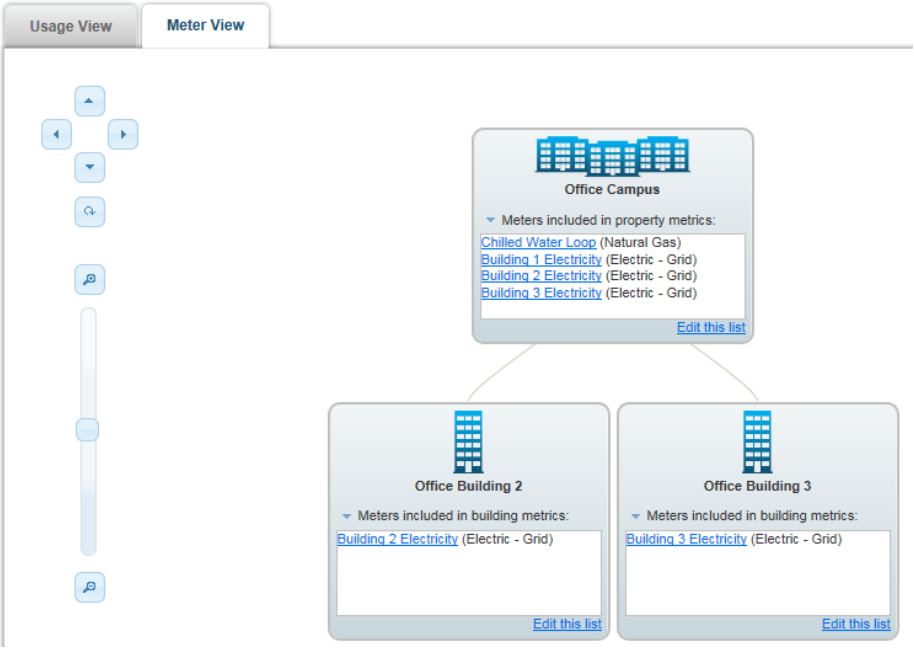
Note: When a meter is disconnected or removed, do not delete the meter in Portfolio Manager. To preserve the energy data in Portfolio Manager, Edit Basic Meter Information to enter the date the meter became inactive, and add INACTIVE to the beginning of the meter name. (The utility will occasionally replace a meter for maintenance or upgrade purposes. No action should be required by you when this happens, and automated benchmarking will not be interrupted. Please track the performance of utility meters, and contact your utility for assistance if the data stops or does not look complete.)

6 Review Your Campus

Portfolio Manager provides a diagram to help you review the relationship of buildings to the campus, as you set it up in Portfolio Manager. The diagram also shows the metering arrangements at the level of the building and campus. This allows you to see, at a glance, how each building relates to the campus, as well as how building-level meters contribute to campus totals. To view the diagram, click **View as a Diagram** on the property's **Summary, Details**, or **Meters** tab. This works best for small campuses.

When you have entered a full year of utility data into the campus meters, you will see an EUI value displayed in the upper right-hand corner of the campus property page.

To verify the total campus energy use is accurate:

1. Under My Portfolio View, scroll down and click Download Entire Portfolio link. Please note that based on the size of your portfolio, this download may take a few minutes.
2. Look for the downloaded Excel file, in a pop-up window or at the bottom of your screen, depending on your internet browser. Open the Excel file.
3. Choose the worksheet tab "Meter Consumption Data."
4. To check that the all the data for the energy entering the campus is in the campus meters, compare the campus meters in the "Meter Consumption Data" worksheet to your utility bills.
5. If energy data is displayed in Portfolio Manager for a metered building on the campus, check that all the energy used by that building is shown in that building's meters in the "Meter Consumption Data" worksheet.

If you need assistance benchmarking separately metered buildings on your campus, please call Donna Albert at 360-489-2420. If you are a WSU Plant Operations Consortium member, call Larry Covey at 360-239-0504.

7   **Share with DES**

Share the properties in your account with the Department of Enterprise Services (DES) master account. The master account user name is WASTATEGENERALADMINISTRATION. Choose read-only access, so that DES can post the energy use of your facilities for public viewing, and create reports. Each building on a campus, and the campus itself, must be specifically shared to give access.

For more information and resources:
http://www.des.wa.gov/services/facilities/Energy/EnergyStar

Appendix A: Frequently Asked Questions about Campus Benchmarking in Portfolio Manager

Below is a set of frequently asked questions about benchmarking a campus, which fall into these categories: campus and building-level associations, ENERGY STAR score, metering, reporting, and sharing. If you do not see the answer to your question here, please visit www.energystar.gov/buildingshelp.

Campus and Building-Level Associations

Can a single-building property be associated with more than one campus?

Yes. This is allowed because there are no "nested" campuses in Portfolio Manager; there are only campus and buildings. A college provides a good example of how you can associate a single-building property with more than one campus. In this example, you could benchmark a college's ten buildings together, and also benchmark the four dormitories at the college together. In this case, you would create two campuses (college and dormitories), and associate the dorms with both campuses.

I understand that a single-building property can be associated with a parent property, or campus. Can a building be associated with another building?

No. There is no building-to-building relationship in Portfolio Manager. Buildings can only be associated with a campus.

Why doesn't property use information at the building automatically roll up to the campus level?

The information does not automatically roll up because use details at the campus level could be different than the use details for the buildings that make up the campus. For example, think of a college that includes an office, dormitory, and laboratory. In this case, it is not logical to combine the different use details for the different property use types. If you make changes to a building's use details, you should update the campus to reflect these changes. EPA always recommends that you enter as few uses as possible. Therefore, we would recommend that an entire college campus be benchmarked with one college/university use rather than a myriad of sub-functions. When you follow our recommendations, it will often be the case that your campus is a different use type than buildings associated with that campus.

ENERGY STAR 1-100 Score

What types of campuses can receive an ENERGY STAR score?

The only multi-building properties eligible to receive an ENERGY STAR 1-100 score at the campus level are those designated as a hotel, hospital, K-12 school, multifamily housing or senior care community. These property types can also earn an ENERGY STAR score as single-building properties.

Metering

Is it possible to associate a single meter to multiple properties?

A meter that serves multiple properties in a campus situation can be associated to the entire campus that it represents, but a meter cannot be assigned to multiple buildings. In addition, a meter cannot be associated with multiple campuses. In a situation where a meter serves a subset of properties, the individual buildings (properties) on the campus should sub-meter usage on a building-by-building basis.

When I generate metrics for a campus, are the meters from associated buildings automatically included in calculations? If not, how can I include the sub-properties?

Portfolio Manager does not automatically "roll up" information from buildings to the campus level. As such, metric calculations for a campus with buildings will only use data from meters that are directly associated to the campus. The reason the meters are not rolled up is because meters on the buildings may be "sub-meters" of energy represented on a master meter at the campus level. Therefore, simply rolling everything up might double count some energy use.

If you would like to associate the same set of meters to both a campus and its buildings, you must add the meters to the individual buildings first, and then associate the meters to both the campus and building property. Note that an association must be done at both the campus and building levels, as an association at the campus level only will not trickle down the hierarchy.

Imagine working your way up the hierarchy as you assign meters to single building, and then multi-building properties. After correctly associating the meters, metrics at both the campus and building level, take the meters into account.

Reporting

If I run a spreadsheet report for a campus, will all properties associated with the campus automatically appear in the report?
No. While the building and campus properties are linked through the campus setup, they are still distinct properties within Portfolio Manager, as reflected by their individual listing on the **MyPortfolio** tab. You must select the buildings and campuses separately when running a report. Likewise, you need to do the same if you are responding to a data request. For more information about reporting and responding to a data request, see www.energystar.gov/buildings/training.

If I run a chart or graph from the Reporting tab, will the campus as well as the buildings be included in the output?
Yes.

Sharing

When I share a campus, are the buildings on that campus automatically shared?
No. You must share properties individually if you want to grant access to both the campus and buildings on a campus. For more information about sharing, see http://www.energystar.gov/buildings/tools-and-resources/how-share-data-other-users-portfolio-manager.