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## Overview and objectives

This summer, the U.S. EPA ENERGY STAR program is launching a new opportunity for colleges and universities: The ENERGY STAR® Higher Education Benchmarking Initiative, or HEBI. The initiative will provide a new way for colleges and universities to understand how the energy and water performance of their campus of buildings stack up against that of peer institutions. EPA hopes that the initiative sparks dialogue and action on energy and water efficiency opportunities. All 2- and 4-year colleges and universities in the U.S. and Canada are invited to participate.

### What will you need to do?

To participate, you will need to provide some information about your campus characteristics through a [Supplemental Information Questionnaire](#), as well as campus-wide energy and water (optional) use data for calendar year 2019. Energy and water use data will be collected through the ENERGY STAR Portfolio Manager® tool, using a tool called a data request that enables users to send their data to another user by clicking on a specific URL, which EPA will share with participants. Portfolio Manager is an online benchmarking tool that is free to use and ensures data privacy.

*Please note that if you plan to submit multiple campuses you will need to conduct the steps above for each individual campus.*

### Important Dates

**September 15:** Deadline to submit energy/water use data via Portfolio Manager data request and campus characteristics through the [Supplemental Information Questionnaire](#).

*If this due date presents a challenge for you, please let us know!*

EPA will return results to participating institutions in **late 2020**.



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## Frequently Asked Questions

### What is the HEBI?

The HEBI is a way for colleges and universities to understand how their campus energy and water performance compare with that of peer institutions.

### Why is EPA launching this initiative?

EPA hopes that increased benchmarking and access to this information will spur efforts to reduce building energy use, typically the main source of greenhouse gas emissions at a college or university.

### What will I receive for participating?

Each participating campus will receive a scorecard showing how its campus-level energy and water use ranks against participating peer campuses in their group. Peer groups will be based on institutional characteristics, for example Carnegie Classification, geographic location, or enrollment. The scorecard will also include an anonymized summary of the performance and characteristics of all campuses that participate in the HEBI.

### Is there a cost for participating in this initiative?

No! Participation in the HEBI is completely free. The only "cost" is the time and effort needed to gather your data, benchmark, and complete the Supplemental Information Questionnaire.

### Will my performance data be shared with anyone outside of the ENERGY STAR team?

No! Performance data will be kept anonymous.

### Do I have to share water data for my campus?

Submission of water data is optional but encouraged!

### Why are you asking for 2019 calendar year data as opposed to fiscal/academic year data?

We wanted to provide the most timely comparison possible that would not be impacted by COVID-19. Additionally, not all academic institutions share the same fiscal/academic year.

### What if my institution/team/data is not quite ready to participate right now?

That's okay! If there's interest, EPA plans to offer multiple rounds of HEBI. Please complete the [Expression of Interest form](#) to stay informed on the launch of possible future rounds.

### How might the HEBI evolve over time?

We hope to conduct similar efforts and grow this process in the future. Potential aspects that are under consideration include: analyzing the period of the pandemic and insights into its impact on energy use in higher education, exploring energy consumption trends and factors in specific higher education building types (e.g., student housing, laboratories), and using interest in the HEBI as a springboard for a survey effort that could lead to a 1-100 ENERGY STAR score for college and university campuses.



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## Will my campus or my buildings receive 1-100 ENERGY STAR scores for participating in this initiative?

No. While ENERGY STAR is interested in additional score coverage for college and university buildings, the HEBI will not be a direct way for EPA to develop additional scores.

## How does EPA develop new 1-100 ENERGY STAR scores?

New scores require the collection of many different pieces of data and need to be nationally representative and accurate. Those standards mean EPA can't rely on Portfolio Manager data or efforts like the HEBI to collect data for a score, because the corresponding data may not be representative of the national building stock, and could have information that is too limited and of unverified accuracy.

For most scores EPA relies on the [Commercial Buildings Energy Consumption Survey \(CBECS\)](#) for the underlying data, and otherwise rely on industry-led surveys for specific building types. EPA hopes the HEBI will increase interest in developing additional scores and convince an industry association to conduct a survey.

## What metrics will I receive?

The HEBI will show absolute (total consumption) and intensity (usage divided by floor area) metrics for energy use, water use, greenhouse gas emissions, and more!

## Will the HEBI normalize or adjust campus energy or water performance based on the characteristics of my campus and the buildings I am benchmarking?

Aside from intensity metrics (usage divided by floor area), or possibly weather-normalized energy use metrics, no, the HEBI will not normalize or adjust campus energy and water performance metrics.

## Why is EPA requesting data at the campus level?

The decision to request campus level data in this first round was based on several reasons, including:

- To keep the initial barrier to entry low given the current pandemic, particularly for those who are new to benchmarking; and
- To ensure a fair point of comparison since many institutions lack building-level metering.

## Will the HEBI include building-level performance comparisons in the future?

Possibly. EPA may try to include building-level comparison in a future round of HEBI if the initiative gains traction and there is interest in building-level comparison.

## How do I define the boundary of my campus?

For the purposes of this initiative, EPA is defining the campus as a geographically contiguous collection of buildings that function as a single property and that include a variety of building types typical of a college or university.

Please do NOT submit data at scales/granularities other than "campus". For example, participants should NOT submit individual building-level data, groups of buildings that lack the variety of building types typically found at a "[College/University](#)", or institution-level data in the case that the institution comprises multiple campuses.



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## Which buildings and usage data should I include?

You should include all classrooms, laboratories, offices, cafeterias, maintenance facilities, arts facilities, athletic facilities, and residential areas.

In all, the usage data and floor area you submit should meet the definition of a [“College/University”](#) and be as complete as possible in representing the total of your campus buildings, excluding parking. You’re still welcome to participate if you can’t meet this standard perfectly, but keep in mind that the further you are from the standard the less meaningful the results will be for you and your peers.

EPA is available to answer any questions you may have, such as if your institution is more spread out across an urban area and lacks a traditional campus.

## What part(s) of those buildings should I include?

All of them! You should benchmark the Gross Floor Area of your campus. This includes **all space within the building(s)**, including classrooms, laboratories, offices, cafeterias, maintenance facilities, arts facilities, athletic facilities, residential areas, storage rooms, restrooms, elevator shafts, and stairways.

## Are there buildings or spaces that I should exclude?

Please do not submit energy and water data for individual buildings that your institution owns but that are not part of the campus, such as separate administrative buildings located in a city center.

## What if we lease buildings that are part of the campus?

Include floor area and usage data for buildings that the institution wholly leases where that usage data is available and that are located on campus, like auxiliary student housing.

## What property/space type should I select when benchmarking my campus in Portfolio Manager?

Please select “College/University” as the Portfolio Manager property type for your campus.

## Can I submit more than one campus?

You’re welcome to submit more than one campus, such as satellite campuses. If you do that, you will need to create a new property or parent property for each campus and submit individual responses to the Supplemental Information Questionnaire for each campus.

We ask that you differentiate and describe your campuses using the Property Name field in Portfolio Manager (i.e., please do not submit two campuses named “Boston University”, but please do submit “Boston University – Charles River Campus” and “Boston University – Medical Campus”). All submittals must still meet the campus definitions described above.

## How do I actually add energy and water use data into Portfolio Manager?

There are three ways: manual entry; spreadsheet entry; and web services. [Please see this guide for more info.](#)

## How do I enter district steam, district hot water, or district chilled water? What about cogeneration or combined heat and power? What about my central utility plant?

Please see [this FAQ for district energy](#). Please see [this FAQ for cogeneration](#) (CHP). If you have a central utility plant that serves the campus or part of it, you can simply benchmark the input fuel in Portfolio Manager using a meter for that fuel.



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## Preparing Campus-Level Data in ENERGY STAR® Portfolio Manager®

This guidance describes how to properly benchmark your institution's energy use data (and optionally water use data) in order to participate in the HEBI. All participants should ensure that their data submission aligns with the instructions below prior to submitting their data to EPA via the Portfolio Manager data request.

In order to compare institutions at the same scale, EPA needs all participants to submit data at the **campus-level**. A "campus" is defined as a collection of two or more buildings that function as a single, cohesive property with a single, shared primary function. The campus-level property that you submit should represent all your campus building floor area, energy use, and water use (optional.) Before preparing campus-level data in Portfolio Manager (outlined in steps 1-4 below,) please complete the following:

### Confirm the institutional boundary for the campus that you will be submitting.

- You're welcome to submit more than one campus to participate in the HEBI, but you will need to create a new campus-level property and fill out a separate Supplemental Info Questionnaires for each one.
- Differentiate each campus using a property name that clearly describes what the institutional boundary represents. For example: "Howard University," "University of Wisconsin- Madison," "University of Calgary- Downtown Campus."
- **Do** include buildings that the institution leases where usage data is available and that are located on campus, like auxiliary student housing.
- **Do not** submit energy and water data for individual buildings that your institution owns which are located outside of the institutional boundary that you are submitting for, such as administrative buildings that are separate from the rest of the campus.

## 1 If you are new to the tool, create a Portfolio Manager account. Otherwise skip to Step 2!

Go to [www.energystar.gov/portfoliomanager](http://www.energystar.gov/portfoliomanager) and register for a new account. Once your account is set up, you are ready prepare campus-level energy and/or water data. If you have an existing Portfolio Manager account, proceed directly to step 2.

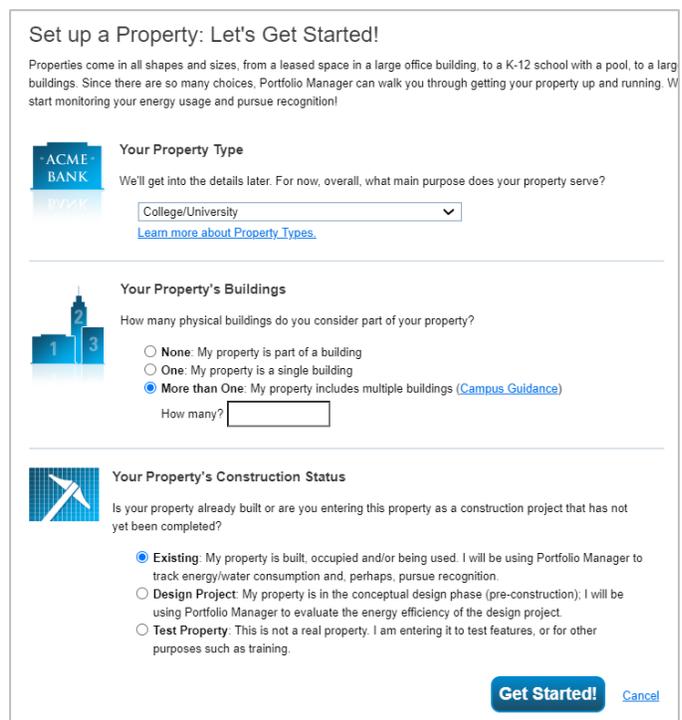
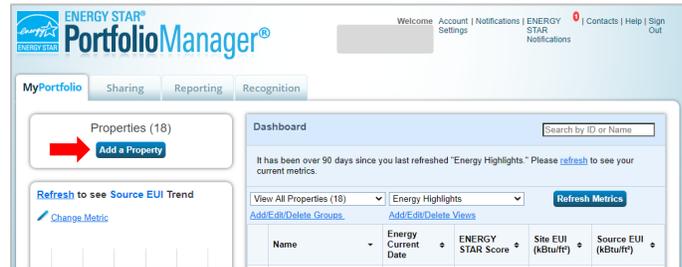
## 2 Set up your Campus-Level Property (Referred to as a "Parent Property" in Portfolio Manager)

**Note:** Since we will only be assessing performance at the campus-level, **please complete step 2 even if you are already benchmarking some or all of your campus buildings at the individual building level.** You will be able to associate any buildings already in Portfolio Manager and their energy/water meters to the new campus-level property after it created.



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1. Click **Add a Property** on the MyPortfolio tab to get started.
2. On the *Set up a Property: Let's Get Started* page, select the following:
  - “College/University” for Your Property Type.
  - “More than One” for Your Property’s Buildings. Indicate the number of buildings on your campus in the “How many” field. (Note: It is not critical to provide the exact number of buildings, but please provide your best estimate.)
  - “Existing” for Your Property’s Construction Status.
3. On the *Set up a Property: Basic Property Information* page, enter information about the campus being benchmarked.
  - Give your campus a descriptive name so it will be clear to you as well as to EPA what institutional boundary it represents, i.e. “Howard University,” University of Wisconsin- Madison,” “University of Calgary-Downtown Campus.”
  - Enter an appropriate address for your campus.





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- For “Year Built,” provide your best estimate for when the majority of building on campus were built.
- Enter the Gross Floor Area for all of the campus buildings included in the institutional boundary that you are submitting, excluding parking areas. This value should correspond to the energy and/or water use data that will be accounted for in your submission. For more information on what to include in the GFA, [click here](#) and search for “College/University.”
- It is not required to enter a value for “Irrigated Area.” [Find the definition here](#) if you want to enter a value.
- As a default, you can select 100% for “Occupancy” – this field will not affect your energy or water use metrics.

**Set Up a Property: Basic Property Information**  
Tell us a little bit more about your property, including a name that you will use to look up your property and its address.

**About Your Property**

Name:

Country:

Street Address:

City/Municipality:

County:

State/Province:

Postal Code:

Year Built:

Gross Floor Area:    Temporary Value

Irrigated Area:    Temporary Value

Occupancy:  %

Property Photo (optional):  No file chosen  
Select an image file on your computer with the format type of .jpg, .jpeg, .png or .gif; photos will be resized to fit a space of 2.78 inches wide x 2 inches tall.

Do any of these apply?

My property's energy consumption includes parking areas

**Building Use** [Edit Name](#)

College/University refers to buildings used for the purpose of higher education. This includes public and private colleges and universities.

Gross Floor Area should include all space within the building(s), including classrooms, laboratories, offices, cafeterias, maintenance facilities, arts facilities, athletic facilities, residential areas, storage rooms, restrooms, elevator shafts, and stairways.

Property Use Detail	Value	Current As Of	Temporary Value
Gross Floor Area	<input type="text" value="2,000,000"/> <input type="text" value="Sq. Ft."/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>
Weekly Operating Hours	<input type="text"/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>
Enrollment	<input type="text"/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>
Number of Full Time Equivalent (FTE) Workers	<input type="text"/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>
Number of Computers	<input type="text"/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>
Grant Dollars	<input type="text"/>	<input type="text" value="1/1/1950"/>	<input type="checkbox"/>

- Under the “Do any of these apply” section, check the box if your energy meters include parking energy use. On the next screen you will enter more details about your parking so that parking energy use can be factored out of your building energy use metrics, since we are looking to assess the efficiency of your buildings, not your parking. If your parking energy use is submetered or you don’t have any parking area, leave the box unchecked, and don’t include the parking energy use in the total energy use for the campus – in that case you won’t need to enter anything about parking on the next screen.

- On the *Set up a Property: How is it used?* page, there is a “Building Use” section with several fields to enter property use details. The only field that is required to be entered in Portfolio Manager for the purposes of the HEBI is “Gross Floor Area.” Enrollment and FTE information will be asked in the Supplemental Information questionnaire instead.

**Note:** These values only have an impact if something changed during a period for which metrics are being run. For example, since we’re looking at 2019 data in the first round of this analysis, please make sure that ‘current as of’ values



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are accurate for all of 2019. For example, be sure to account for changes in GFA if a building came online or was demolished in 2019.

- If you checked the parking box in step 3, you will see a section called “Parking Use”. Enter the square footage of each type of parking on campus that’s using energy and can’t be easily excluded from your campus-level energy use data because it isn’t submetered. By entering details about your parking here, the parking energy use can be factored out of your building energy use metrics. When you are finished entering property use details and parking information, click **Add Property**.

Property Use Detail	Value	Current As Of	Temporary Value
Open Parking Lot Size	<input type="text"/> Sq. Ft. ▾	1/1/1950	<input type="checkbox"/>
Partially Enclosed Parking Garage Size	<input type="text"/> Sq. Ft. ▾	1/1/1950	<input type="checkbox"/>
Completely Enclosed Parking Garage	<input type="text"/> Sq. Ft. ▾	1/1/1950	<input type="checkbox"/>
Supplemental Heating	▾ <input type="checkbox"/> Use a default	1/1/1950	<input type="checkbox"/>

- Once you have successfully created your new campus-level property, the following screen will appear.

*Note: If you are already benchmarking all campus buildings in Portfolio Manager, proceed to step 3 to associate these buildings with the newly created campus-level property. If you do not already have individual campus buildings benchmarked in your Portfolio Manager account, proceed directly to step 4 to add energy and water (optional) use information to your campus-level property.*

## 3 Associate Individual Buildings Already in Portfolio Manager to Your New Campus-Level Property

- Confirm that all buildings within the campus have been benchmarked before proceeding!**
- Once you have benchmarked all campus buildings in Portfolio Manager, click **Enter specific information about your individual buildings** on the MyPortfolio tab to get to the *Add a Building* page. You can also click **Add a Building** on the **Summary** tab of the new campus-level property to get to this page.

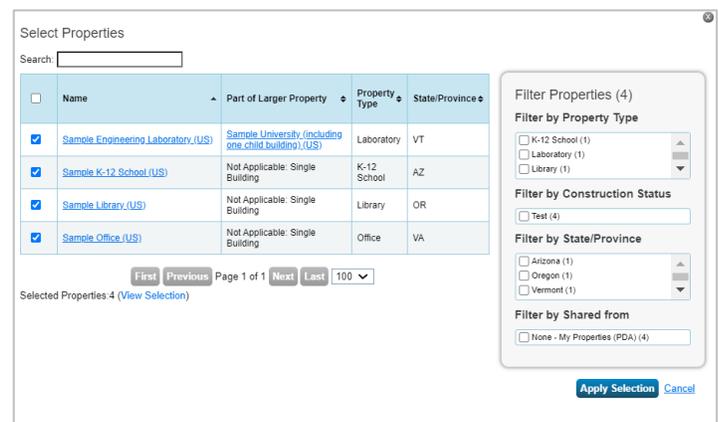
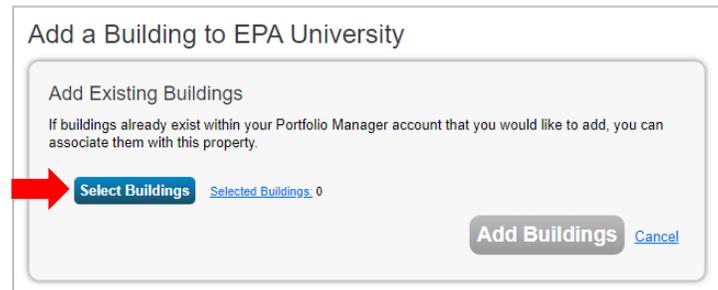


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- Go to the **Add Existing Buildings** section and click **Select Buildings**. Check the box next to each building you want to associate with the new campus-level property you created. You can use the search bar to find buildings by name, location, or Portfolio Manager ID. Once all of the buildings you would like to associate to your campus-level property are checked, click **Apply Selection**, then click **Add Buildings**.

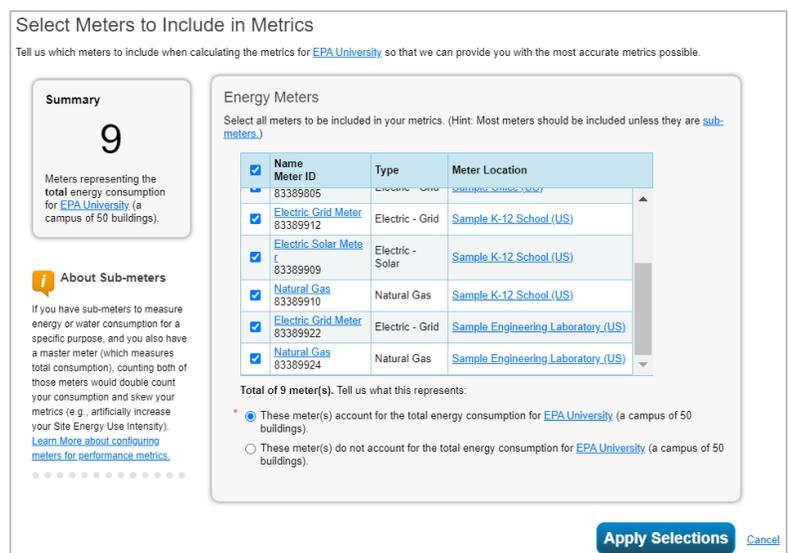
**Note:** Property use information from child properties does not automatically roll up to the campus level. If you make changes to a child property's use details, you should update the parent property to reflect these changes.

- On the *Select Meters to Include in Metrics* page, check the box next to each meter that you want to associate with the new campus-level property. Once all of the meters to be included are selected, indicate whether the selection accounts for the energy consumption of the entire campus, or if it is only a portion of the total energy use. Click **Apply Selections**. If you are currently benchmarking water, repeat this step with water meters on the next page. If you have navigated away from this page, you can return to it via the **Energy** or **Water** tab on your campus-level property by clicking **You Are Tracking: Edit**, located on the left.



## HELPFUL TIP

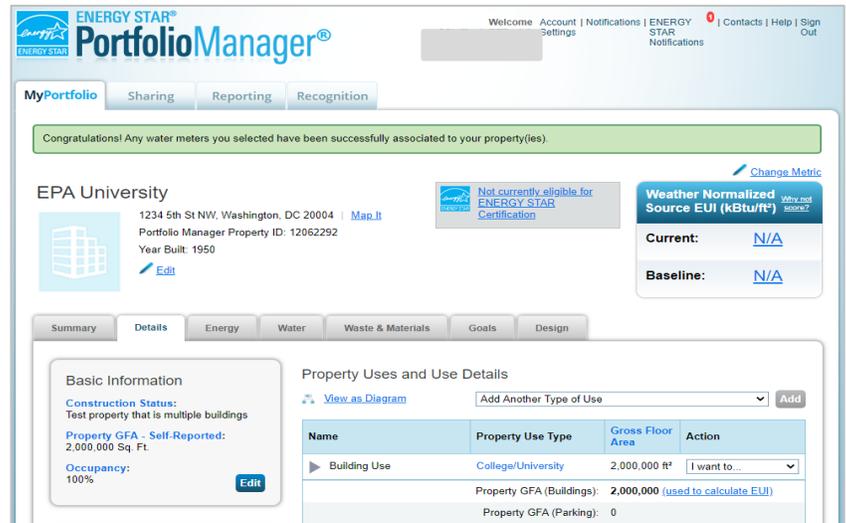
Portfolio Manager provides a diagram to help you review the relationship of child properties to the parent property, as you set it up in Portfolio Manager. The diagram also shows the metering arrangements at the level of the child and parent properties. This allows you to see, at a glance, how child properties relate to the parent property, as well as how child property-level meters contribute to campus totals. To view the diagram, click View as a Diagram on the property's Summary, Details, or Meters tab.





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- It is important to note that the gross floor area of individual buildings will not automatically roll up to your new campus-level property after you associate them. Please ensure that the “Property GFA” on the Details tab accounts for the combined square footage of all of the individual buildings you associated with the campus-level property. If it does not, click Edit on the Basic Information section and update the Gross Floor Area field in the Property Details section on the resulting page to represent the floor area of the entire campus being submitted.



## 4

### Enter Energy and/or Water Use Data

- After you create your campus-level property (which Portfolio Manager refers to as a “Parent” property,) click **Add energy use information** to add meters to track campus-level energy performance. You can also click **Add a Meter** on the **Energy** tab of the new campus-level property to get to this page.
- On the Get Started Setting Up Meters page, select all of the energy sources that your campus buildings use and the number of meters you would like to create (if you will be aggregating all data for each energy source, enter “1” in the **How Many Meters** field.) Then click **Get Started!**
- On the About Your Meters page, click on each meter to enter **units** and check the boxes for **In Use**. For **Date Meter became Active**, enter the date you want to start benchmarking, such as 1/1/2019. If any of your meters reflect a bulk fuel purchase for an energy meter, select the **Enter as Delivery?** checkbox. Once you’re finished entering this information, click **Create Meters**.
- Click the blue arrow next to each meter to expand the section on the Your Meter Entries

About Your Meters for EPA University

Enter the information below about your new meters. The meter's **Units** and **Date Meter became Active** are required. You can also change the meter's name.

2 Energy Meters for EPA University (click table to edit)

<input type="checkbox"/>	Meter Name	Type	Other Type	Units	Date Meter became Active	In Use?	Date Meter became Inactive	Enter as Delivery?	Custom Meter ID 1 Name
<input type="checkbox"/>	Natural Gas	Natural Gas				<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>	Electric Grid Meter	Electric - Grid				<input checked="" type="checkbox"/>		<input type="checkbox"/>	

[Delete Selected Entries](#)  
[Add Another Entry](#)



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page. Click **Add Another Entry** under each meter and enter campus-level energy data. Your entries should cover the entire 2019 calendar year. Once you're finished adding entries, click **Continue**.

5. On the Select Meters to Include in Metrics page, check the box next to each meter to confirm that they should be associated with the new campus-level property. Once all of the meters to be included are selected, indicate whether the selection accounts for the energy consumption of the entire campus, or if it is only a portion of the total energy use. Click **Apply Selections**.
6. *Optional:* If you plan to submit water use data, click **Add a Meter** on the **Water** tab of the new campus-level property to get to this page and complete steps 4B-E for water use.
7. For more information about how to add meter data in Portfolio Manager, please view the guide [How to Get Utility Data Into Portfolio Manager](#), or the video [How to Set up Energy, Water, and Waste Meters in Portfolio Manager](#).

**Summary**

2

Please tell us what your meters represent.

**About Sub-meters**

If you have sub-meters to measure energy or water consumption for a specific purpose, and you also have a master meter (which measures total consumption), counting both of those meters would double count your consumption and skew your metrics (e.g., artificially increase your Site Energy Use Intensity). [Learn More about configuring meters for performance metrics.](#)

**Energy Meters**

Select all meters to be included in your metrics. (Hint: Most meters should be included unless they are [sub-meters](#).)

<input type="checkbox"/>	Name Meter ID	Type
<input checked="" type="checkbox"/>	Natural Gas 84068777	Natural Gas
<input checked="" type="checkbox"/>	Electric Grid Meter 84068778	Electric - Grid

**Total of 2 meter(s).** Tell us what this represents:

These meter(s) account for the total energy consumption for [Brandon Test](#) (a campus of 50 buildings).

These meter(s) do not account for the total energy consumption for [Brandon Test](#) (a campus of 50 buildings).

**Apply Selections**

## Supporting Resources

### Portfolio Manager & Energy and/or Water Data Submission

The following resources may be helpful as you prepare to submit campus-level energy and/or water data through Portfolio Manager.

- [Portfolio Manager Quick Start Guide](#): Follow the steps in this two-page guide to get started using the Portfolio Manager to benchmark your properties, assess performance, and view results.
- [Portfolio Manager 101](#): Watch this webinar to learn how to navigate Portfolio Manager; add a property and enter details about it; enter energy and water consumption data; and generate template performance reports to assess progress.
- [How to Set up Energy, Water, and Waste Meters in Portfolio Manager®](#): Short video clip with step-by-step instructions on how to set up energy, water, and waste meters.
- [How to Get Utility Data Into Portfolio Manager®](#): Four-page guide to learn options for getting data into Portfolio Manager, whether its uploading new buildings for the first time or updating existing buildings.
- [How to Respond to a Data Request in Portfolio Manager](#): This short video demonstrates how to respond to a data request in Portfolio Manager, which will be required in order to participate in the ENERGY STAR Higher Education Benchmarking Initiative. This [guide](#) describes the data request process in more detail.
- [How to Benchmark a Campus](#): This six-page guide provides the general steps for benchmarking multi-building properties, commonly referred to as campuses, in ENERGY STAR® Portfolio Manager® and may help you answer some basic questions. **Please note that we have provided specific guidance on how to benchmark your campus for the HEBI above**, along with a list of frequently asked questions about campus and building-level associations, the ENERGY STAR score, metering, reporting, and sharing.



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## Data Submission Checklist

The checklist below outlines how to submit all information necessary to participate in the ENERGY STAR Higher Education Benchmarking Initiative.

### **Ensure You Have Campus-Level Data in Portfolio Manager**

Please see the Preparing Campus-Level Data in ENERGY STAR® Portfolio Manager® guidance above before submitting your Portfolio Manager data request to the EPA.

### **Submit Your Portfolio Manager Data to EPA**

Please view this [short video](#) about how to respond to data requests, if you aren't familiar with them. Once you've reviewed that, [please click on this link to submit your data to EPA](#). As a reminder, data from participating institutions will be anonymized in the scorecards.

### **Submit Institutional Characteristics to EPA**

Please fill out this [Supplemental Information Questionnaire](#) on Microsoft Forms to help us gather additional information that we will need to group you with similar institutions and complete our analysis. Please keep in mind that while not every question requires an answer, your responses to more fields allows us to conduct analysis along more dimensions of the data and will provide you with more informative results.

A [PDF version of the Supplemental Information form](#) is available for your reference. Please note that we will only be accepting Supplemental Information form responses via Microsoft Forms and the link provided above.

## Please contact us with any questions!

For more information, please contact Brendan Hall, U.S. EPA Commercial Buildings Program, Higher Education: [Hall.brendan@epa.gov](mailto:Hall.brendan@epa.gov)