# How to Benchmark Your Building

User Guide for Benchmarking with ENERGY STAR® Portfolio Manager®



2018

This document is a reference guide for creating a Portfolio Manager account, and setting up a building profile. For additional help, please refer to the resources available on <u>SMUD's EPA</u> <u>Portfolio Manager page</u>, on <u>SMUD's Benchmarking help website</u>, and in the <u>Portfolio Manager</u> <u>Online Help library</u>.

### **OVERVIEW** ENERGY STAR Portfolio Manager, an online service created by the Environmental Protection Agency (EPA), allows you to track the energy consumption of your facilities and compare them to similar buildings nationwide.

This guide will walk you through the process of benchmarking your building: how to register for a Portfolio Manager account, and how to create a profile for your property. You will also find detailed answers to frequently asked questions on <u>SMUD's Benchmarking help website</u>.

Before getting started, you may want to collect information about your building using the <u>Data Collection Worksheet</u> available on EPA's ENERGY STAR Portfolio Manager Benchmarking Web site.

| TABLE OF | SECTION 1   How to Register a Portfolio Manager Account | 3  |
|----------|---|----|
| CONTENTS | SECTION 2   How to Create a Property Profile            | 6  |
|          | SECTION 3   Additional Resources                        | 19 |

# Section 1 – How to Register a Portfolio Manager Account

Visit the Portfolio Manager welcome page <u>https://portfoliomanager.energystar.gov/pm/login.html</u>

Either click Create a New Account, or, if you already have a User Name and Password, enter it below and Sign In.

| ENERGY STAR®<br>PortfolioManager®   | <u>Help</u><br>Language: <u>English   Français</u>   |
|---|--|
| Welcome to Portfolio Manager         Helping you track and improve energy efficiency across your entire portfolio of properties.         Username:         Password:  | ENERGY STAR<br>Buildings Homepage  |
| I forgot my password.<br>I forgot my username. Sign in<br>Create a New Account  | Learn More About<br>Portfolio Manager      These links provide more information from<br>ENERGY STAR and are not available in French. |
| You are accessing a U.S. Government information system. System usage may be monitored, recorded, and subject to audit, criminal and civil penalties. Use of the system indicates consent to monitoring and recording. | Unauthorized use of the system is prohibited and subject to  |
| Follow Us 🖹 f 🛗 in Contact Us   Privacy Policy   Browser Requ   | irements   ENERGY STAR Buildings & Plants Website  |

To Create a New Account: Fill out the requested information. Your Username can't be changed later, so be deliberate with your selection.

| Create an Acc     | count   | Already have an account? Sign In Her  |
|-------------------|---|---|
| Accessing Your A  | ccount  | Getting Started   |
| Username:         |   | Please complete and submit this form to register for ar<br>account with Portfolio Manager. After submission, you<br>will receive an email confirmation. If your email provide |
| Password:         |   | actively filters spam, please add   |
|                   | Create a password that is at least 8 characters long and includes at least three of<br>the following: lowercase letters, uppercase letters, numbers and/or special<br>characters (such as *, #, %, etc.). | ensure delivery.  |
| Confirm Password: | •   |   |

Continue filling out the required fields. Portfolio Manager's default selection of Yes for Searchability allows others to search for your account, to facilitate making Contact Connections. Don't change this default setting if you intend to enroll in <u>SMUD Web Services</u>, an automated energy data upload option.

| First Name:<br>Last Name:  | •   | If you are creating an account that you intend to us<br>your organization's account, then you may want to<br>consider entering your organization name in the firs<br>and last name fields in order to make it easier for o  |
|--|---|---|
| Job Title:   | •   | Portfolio Manager users to find your organization.<br>Example: First Name: Company ABC, Last Name:<br>Services Division   |
|  |   |   |
| Email:   |   |   |
| Confirm Email:   | •   |   |
|  | Note: We never share your email address with third parties.   |   |
| Phone:   | •   |   |
| Country:   | * Select Country 🗘  |   |
| Language:  | English 🗘   |   |
| Reporting Units:   | Conventional EPA Units (e.g., kBtu/ft <sup>2</sup> )  |   |
|  | Metric Units (e.g., GJ/m <sup>2</sup> )   |   |
| Street Address:  | •   |   |
|  |   |   |
|  |   |   |
|  |   |   |
| City/Municipality:   | •   |   |
| City/Municipality:   |   |   |
| City/Municipality:<br>State/Province:  | *<br>* Select \$  |   |
| City/Municipality:<br>State/Province:<br>Postal Code:  | •<br>• Select •   |   |
| City/Municipality:<br>State/Province:<br>Postal Code:  | •<br>• Select \$  |   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat  | •<br>•<br>•<br>•<br>•<br>•<br>•   | Primary Business or Service   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat  | • Select \$   | Primary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine yo   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:  |   | Frimary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine yo<br>category for a score based on the information, like  |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:  | • • • • • • • • • • • • • • • • • • •   | Frimary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine yo<br>category for a score based on the information, like<br>square footage, that you enter for each of your pro-<br>uses.   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:  | <pre> * * * * * * * * * * * * * * * * * * *</pre>   | Frimary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine yo<br>category for a score based on the information, like<br>square footage, that you enter for each of your pro-<br>uses.   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:<br>Is your organization an<br>ENERGY STAR Partner?   | <ul> <li>Select Primary Business or Service \$</li> <li>Yes</li> <li>No</li> </ul>                                | Frimary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine yo<br>category for a score based on the information, like<br>square footage, that you enter for each of your pro-<br>uses.   |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization an<br>ENERGY STAR Partner?  | <ul> <li>Select Primary Business or Service \$</li> <li>Yes</li> <li>No</li> </ul>                                | Frimary Business or Service<br>If you have more than one "primary business," just<br>the best option. Portfolio Manager will determine you<br>category for a score based on the information, like<br>square footage, that you enter for each of your pro-<br>uses.  |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:<br>Is your organization an<br>ENERGY STAR Partner?<br>Searchability in Portfo  | <ul> <li>Select \$</li> <li>Select Primary Business or Service \$</li> <li>Yes <ul> <li>No</li> </ul> </li> </ul> | Primary Business or Service<br>If you have more than one *primary business,* just<br>the best option. Portfolio Manager will determine yo<br>category for a score based on the information, like<br>square footage, that you enter for each of your pro-<br>uses. Image: Content of Cont |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:<br>Is your organization an<br>ENERGY STAR Partner?<br>Searchability in Portfor<br>Can other people                       | <ul> <li>Select Primary Business or Service \$</li> <li>Yes</li> <li>No</li> </ul>                                | Connecting with Others in Portfolio     Wanager     You can connect with other people in Portfolio Manager  |
| City/Municipality:<br>State/Province:<br>Postal Code:<br>About Your Organizat<br>Organization Name:<br>Primary Business or Service<br>of Your Organization:<br>Is your organization an<br>ENERGY STAR Partner?<br>Searchability in Portfor<br>Can other people<br>search for you and | <ul> <li>Select Primary Business or Service \$</li> <li>Yes</li> <li>No</li> </ul>                                | Primary Business or Service      If you have more than one "primary business," just the best option. Portfolio Manager will determine yo category for a score based on the information, like square footage, that you enter for each of your prop uses.      Connecting with Others in Portfol Manager      You can connect with other people in Portfolio Man to easily share information. Your account must be  |

When finished, click Create My Account.

Once you have created your account, visit the ENERGY STAR homepage https://www.energystar.gov/, and click on Portfolio Manager.



Now enter your new User Name and Password to Log In.



## Section 2 – How to Create a Property Profile

To benchmark your facility in ENERGY STAR Portfolio Manager, you will need to create a profile that has basic information about the property, how it is used, and the energy meters serving it. Have the basic information describing your building ready before proceeding. Refer to the <u>Data Collection Worksheet</u> for help determining what information to collect. You will need details such as Gross Floor Area (<u>not</u> rentable square feet), year built, number of meters of each energy type, and how you would classify your building's primary use. The <u>Portfolio Manager Glossary</u> can be referenced throughout your set up for definitions, or you can hover over any blue text for further information.

To begin, from the My Portfolio tab, add a property by clicking the blue "Add a Property" box to get started.

|             | IGY STAR®<br><b>rtfolio</b> | Manag     | je | r®             |                          | We       | Icome BETH                | IDEMO  | D: <u>Account Settings</u> | Notifications C          | ontacts   Help   Sign Ou   |
|-------------|-----------------------------|-----------|----|----------------|--------------------------|----------|---------------------------|--------|----------------------------|--------------------------|----------------------------|
| MyPortfolio | Sharing                     | Reporting | R  | ecognition     |                          |          |                           |        |                            |                          |                            |
| ſ           | Properties (                |           | 1  | Dashboard      |                          |          |                           |        |                            | Search by I              | D or Name                  |
| Source EUI  | Trend (kBtu/fl              | 12)       |    | Please refrest | to see you<br>erties (7) | r curren | Energy Hi                 | ghligh | ts 🛟                       | Refresh                  | Metrics                    |
| 750         |                             |           |    | Name           | <u>e Groups</u>          | •        | Energy<br>Current<br>Date | ¢      | ENERGY<br>STAR Score +     | Site EUI<br>(kBtu/ft²) * | Source EUI<br>(kBtu/ft²) ÷ |

Enter your property's primary function, number of buildings, and construction status. Then click "Get Started!"

| roperties con<br>uildings. Sinc<br>tart monitorin | ne in all shapes and sizes, from a leased space in a large office building, to a K-12 school with a pool, to a la<br>e there are so many choices, Portfolio Manager can walk you through getting your property up and running,<br>g your energy usage and pursue recognition!  | rge medical complex with lots of<br>When you're done, you'll be ready to   |
|---|--|--|
| -ACME-<br>BANK<br>ВУИК                            | Your Property Type We'll get into the details later. For now, overall, what main purpose does your property serve? Office e Learn more about Property Types.   | Tip<br>To set up a property, you'll need<br>information such as gross floor area and<br>operating hours.   |
| 2   | Your Property's Buildings How many physical buildings do you consider part of your property?  None: My property is part of a building  One: My property is a single building  More than One: My property includes multiple buildings (Campus Guidance) How many?   | Vip Trp<br>Not sure what kind of property you are?<br>Because we focus on whole building<br>benchmarking, you want to select the<br>property bye that best reflects the<br>activity in the majority of your building.<br>Don't worn't you have other temats<br>with different business types, just select<br>the main activity.  |
| $\mathbf{X}$                                      | Your Property's Construction Status Is your property already built or are you entering this property as a construction project that has not yet been completed?  Existing: My property is built, occupied and/or being used. I will be using Portfolio Manager to track energy/water consumption and, perhaps, pursue recognition.  Design Project: My property is in the conceptual design phase (pre-construction); I will be using Portfolio Manager to evaluate the energy efficiency of the design project.  Test Property: This is not a real property. I am entering it to test features, or for other purposes such as training. | Control to enter a properties<br>You may want to enter a property into<br>Proficio Manager that isn't actualy a<br>"real" property, etter to familiaica<br>yoursel with features or maybe to train<br>other people. By telling us this a "Test"<br>property, we can give the option of<br>including this property in your portfolio-<br>well metrice, charts and table or not,<br>depending what your needs are. This<br>can be configured on your <u>Account</u><br>Bettings. |

Enter the property's name, and full address carefully.

TIP: Make sure the city name is accurate and spelled correctly, with no abbreviations (i.e. use Mount, not Mt.) to avoid an error connecting with SMUD's Web Services later. Avoid the use of hashtags (#) and ampersands (&).

| About Your Prope   | erty   |   | <b>Ч</b> Тір  |
|--------------------|--|---|---|
| Name:              | * Demo Office Building   | 1   | The name you choose for your prope<br>does not have to be unique. But, it m                       |
| Country:           | * United States  | \$  | make it easier for you to work with<br>properties in your portfolio if you do n                   |
| Street Address:    | * 100 Main Street  |   | use the same (or similar) names.  |
| City/Municipality: | * Sacramento   |   |   |
| State/Province:    | * California   |   |   |
| Postal Code:       | • 95838  |   |   |
| Year Built:        | 1995   |   |   |
| Gross Floor Area:  | 20,000 Sq. Ft. 🛊 🔲 Temporary Valu  | le  |   |
|                    | Gross Floor Area (GFA) is the total property floor are<br>surfaces of the building(s). Do not include parking. | Temporary Data flag   | or<br>Io flag that indicates  |
| Irrigated Area:    | 0 Sq. Ft. \$   | whether temporary values have<br>any of the Property Use Details<br>workers, or computers).   | e been applied to<br>(such as hours,  |
| Occupancy:         | * 100 <b>*</b> %   | <ul> <li>Yes - One or more tempora<br/>used in the Property Use D</li> <li>No - There are no tempora<br/>Property Use Details.</li> </ul> | ary value was<br>letails.<br>Iry values for any   |
|                    |  | You can view this metric for all<br>(Click to view the full term in the   | properties in<br>e glossary)  |
| Do any of these a  | upply?   |   | Answering these simple questions wil<br>help us guide you in entering your<br>property correctly. |
| My property has a  | Data Center that requires a constant power load of 7   | 75 kW or more   |   |

Finish entering the building data, then click Continue.

If you need to make corrections after finalizing your entries, click "Edit".

| et up a Proper        | ty: How is it used?                    | our property. Fill in the tables belo | w to provide more detailed informat     | tion on how your |
|-----------------------|--|---------------------------------------|---|------------------|
| perty is used.        | so iai, Portiolio Manager has set up y | our property. Fill in the tables beit | w to provide more detailed morma        | lion on now your |
| Basic Information     |  |                                       |   |                  |
| Name:                 | Demo Office Building                   | Country:                              | US                                      |                  |
| Property Type:        | Office                                 | Address:                              | 100 Main Street<br>Sacramento, CA 95838 | Map It           |
| Year Built:           | 1995                                   |                                       |   |                  |
| Property consists of: | 1 building with parking                |                                       |   |                  |
|                       |  |                                       |   | Edit             |

The information requested next will vary depending on the Primary Function selected. For example, if you your building's Primary Function is Office, you would be asked to supply the Gross Floor Area, Weekly Operating Hours, Number of Computers, Number of Workers on Main Shift, and Percent that can be Heated, and Cooled. If your building is a school, you would need to enter additional details, such as Number of Students.

If your site has parking, enter those details.

When finished, click "Add Property" to finalize your building profile.

| oss Floor Area (GFA) should include all space within t   | he building(s) including offices   | , conference rooms and audi                                     | toriums, break rooms, kitc                     | hens, lobbies,     |
|--|--|---|--|--------------------|
| ess areas, basements, storage areas, stairways, and<br>ou have restaurants, retail, or services (dry cleaners)   | elevator shafts.<br>within the Office, you should r                          | nost likely include this square                                 | footage and energy in the                      | Office Proper      |
| e. There are 4 exceptions to this rule when you shoul  | d create a separate Property L   | Jse:  |  |                    |
| If it is a <u>Property Use Type that can get an ENERG</u><br>If it accounts for more than 25% of the property's C<br>If it is a vacant/unoccupied Office<br>If the Hours of Operation differ by more than 10 hou   | <u>STAR Score</u> (note: Retail can<br>GFA<br>urs from the main Property Use | only get a score if it is greate<br>e                           | r than 5,000 square feet)                      |                    |
| re on this rule.   |  |   |  |                    |
| Property Use Detail  | Value  |   | Current As Of                                  | Temporary<br>Value |
| 🚖 Gross Floor Area   | * 20,000   | 🛔 🛛 Sq. Ft. 🛊   | 1/1/1995                                       |                    |
| * Weekly Operating Hours   | 65   | Use a default   | 1/1/1995                                       |                    |
| Aumber of Workers on Main Shift  | 46   | Use a default   | 1/1/1995                                       |                    |
| The second secon | 40   | Use a default   | 1/1/1995                                       |                    |
| Percent That Can Be Heated   | 50 % or more 🗘 🔲   | Use a default   | 1/1/1995                                       |                    |
| That Can Be Cooled   | 50 % or more \$  | Use a default   | 1/1/1995                                       |                    |
| This Use Detail is used to calculate the 1-100 ENER  | GY STAR Score.   |   |  |                    |
| Parking Use 🧪 Edit Name  |  |   |  | Del                |
| rking refers to buildings and lots used for parking vel<br>underground) parking structures. Parking structures   | nicles. This includes <u>open park</u><br>may be free standing or physi      | ting lots, partially enclosed partially connected to the proper | <u>rking structures,</u> and <u>com</u><br>ty. | pletely enclose    |
| Property Use Detail  | Value  |   | Current As Of                                  | Temporary<br>Value |
| Open Parking Lot Size  | * 0  | Sq. Ft.   | 1/1/1995                                       |                    |
| Partially Enclosed Parking Garage Size   | * 5000   | Sq. Ft. \$  | 1/1/1995                                       | •                  |
| Completely Enclosed Parking Garage Size  | * 0  | Sq. Ft. \$  | 1/1/1995                                       |                    |
| Supplemental Heating   | No 🗘 📃 Use a defa  | ult   | 1/1/1995                                       |                    |
|  |  |   |  |                    |

A green banner confirms your success in creating your new property profile.

| MyPortfolio    | Sharing           | Reporting           | Recognition            |            |  |
|----------------|-------------------|---------------------|------------------------|------------|--|
| Congratulation | ns! You have succ | cessfully created y | our property.          |            |  |
| Add energy     | gy use informatio | n, so that you can  | see your energy perfor | e metrics. |  |

Before you move on to the energy use section, be sure you have fully described your building by including a "Use" for each of the functions your building provides. Not sure if you need to add a use? Read more about the rules at <u>SMUD's Benchmarking Help</u> website.

#### Adding Another Type of Use

Portfolio Manager uses the phrase "Type of Use" to characterize the various spaces within a building. Your building may have one or more space types. For example, an office building might have occupied office space, a retail space, and parking. Each of these should be entered as a separate "Type of Use" and will require different inputs. If more than 10% of a building's gross floor area is vacant, the vacant square footage should be entered as a distinct space type.

To add another space use to your facility, go to the Details tab of your building, and look for the Add Another Type of Use dropdown. Select the type of space you would like to add, then click Add.

| Portfolio  | Sharing   | Reporting                                      | Recognition                                  |   |   |
|--|---|--|--|---|---|
| Congratulatior<br>Next, you can:<br>• <u>Add energ</u>       | ns! You have succ<br>:<br>gy use information                | cessfully created yo<br>n, so that you can     | our property.<br>see your energy performance | metrics.  |   |
| Demo O<br>00 Main Stree<br>ortfolio Manag<br>ear Built: 1975 | ffice Build<br>t, San Francisco,<br>ger Property ID: 5<br>5 | <b>ding</b><br>CA 94105   <u>Map</u><br>706630 | <u>It</u>                                    | Not eligible to apply for<br>ENERGY STAR<br>Certification | Weather-Normalized<br>Source EUI (kBtu/ft?)       Why.not<br>scon?         Current EUI:       N/A         Baseline EUI:       N/A |
| Summary  | Details   | Energy W                                       | ater Waste & Material                        | s Goals Design  |   |
| Basic I  | nformation  |  | Property Uses and                            | I Use Details   |   |
| Construe   | ction Status:   |  | Rev as Diagram                               | ✓ Add Another Type of Us                                  | se Add  |
| Existing p<br>building                                       | GEA - Self-Rep  |  | Name   | Bank Branch<br>Financial Office                           |   |
| 20,000 So  | q. Ft.  | orted.   | Building Use                                 | Adult Education   | <b>+</b>  |
| Occupar<br>100%  | 1су:  | Edit   | Parking Use                                  | K-12 School<br>Pre-school/Daycare<br>Vocational School    | \$  |

Enter the necessary data, using a zero to indicate none, as needed. When complete, click Save Use.

#### Add Property Use For Demo Office Building

Retail Store refers to individual stores used to conduct the retail sale of non-food consumer goods such as clothing, books, toys, sporting goods, office supplies, hardware, and electronics. Buildings containing multiple stores should be classified as enclosed mall, lifestyle center, or strip mall.

Gross Floor Area should include all space within the building(s), including sales areas, storage areas, offices staff break rooms, elevators, and stairwells.

To receive an ENERGY STAR score, a Retail Store must be a *single store* that is at least 5,000 square feet and has an exterior entrance to the public. The ENERGY STAR score applies to: Department Stores, Discount Stores, Supercenters, Warehouse Clubs, Drug Stores, Dollar Stores, Home Center/Hardware Stores, and Apparel/Specialty Stores (e.g. books, clothing, office products, toys, home goods, and electronics). Eligible store configurations include: free standing stores; stores located in open air or strip centers (a collection of attached stores with common areas that are not enclosed); and mall anchors.

Retail configurations not eligible to receive an ENERGY STAR score include: enclosed mails; individual stores located within enclosed mails; lifestyle centers; strip mails; and individual stores that are part of a larger non-mail building (i.e. office or hotel).

Convenience Stores, Automobile Dealerships, and Restaurants are not eligible to earn an ENERGY STAR score as Retail. Supermarkets are eligible for an ENERGY STAR score under the Supermarket property type.

Note: In order to be eligible to earn ENERGY STAR certification, your building must be located in the US or its territories, or owned by the US government outside of the US.

Name: \* Retail Store Use

| Property Use Detail  | Value                                      |                   | Current As Of | Temporary<br>Value |
|--|--|-------------------|---------------|--------------------|
| Trans Floor Area   | •  | (Sq. Ft. ¢)       | 1/1/1995      |                    |
| The Gross Floor Area<br>The Gross Floor Area (GFA) is the square fortage massured between  | e total property                           | Use a default     | 1/1/1995      |                    |
| ★ Number of Wor<br>surface of the exterior walls of th<br>includes all areas inside the built<br>supporting areas GEA is not the | the building(s). This<br>ding(s) including | Use a default     | 1/1/1995      |                    |
| * Number of Cor<br>space, but rather includes all are<br>building(s).  | a inside the                               | Use a default     | 1/1/1995      |                    |
| Number of Cas to view the full term in the gloss   | areas, co (Click<br>ary)                   | Use a default     | 1/1/1995      |                    |
| * Number of Open or Closed<br>Refrigeration/Freezer Units  |  | Use a default     | 1/1/1995      |                    |
| Length of All Open or Closed<br>Refrigeration/Freezer Units  |  | Ft. \$            | 1/1/1995      |                    |
| * Number of Walk-in Refrigeration/Freezer<br>Units   |  | Use a default     | 1/1/1995      |                    |
| Area of All Walk-in Refrigeration/Freezer<br>Units   |  | Sq. Ft. \$        | 1/1/1995      |                    |
| * Single Store   | 🔹 🌒 🔲 Use a default                        |                   | 1/1/1995      |                    |
| * Exterior Entrance to the Public  | 🔷 🖨 Use                                    | 🔷 📋 Use a default |               |                    |
| Cooking Facilities   | \$   | •                 |               |                    |
| That Can Be Heated   | <b></b>                                    | Use a default     | 1/1/1995      |                    |
| The Percent That Can Be Cooled   | <b></b>                                    | Use a default     | 1/1/1995      |                    |

This Use Detail is used to calculate the 1-100 ENERGY STAR Score.



Continue with this "Add a Use" procedure until your building's gross floor area is completely entered. Be sure the sum of all space uses is equal to the total gross floor area of the facility.

After saving each of your Use entries, you will see a green banner at the top of the Details tab, confirming you have successfully added each Use.

Notes about the data integrity of the values entered for your space attributes:

- Some fields give you the option to "Use a Default" (which inserts the national average for that attribute). Or, it is possible to check the "Temporary Value" box, to indicate that you used an estimate for that attribute.
- Neither of these kinds of values are intended to be an accurate representation of your property.
- While it is okay to use a default or temporary value as a placeholder, a true value must be added before submitting a benchmarking report for official purposes.
- Be sure to collect and enter actual data for your facility as soon as you can, and remove the default and temporary notations.
- Adjust default or temporary values by using the "Correct Mistakes" feature. See the FAQ section of <u>SMUD's Benchmarking Help</u> website for more information on clearing temporary or default data.

#### Setting up Energy Meters

#### Overview:

As you add meters, be sure to include all meter types required to fully describe the site's energy consumption. As you chose different fuels, additional fields requesting more data may appear. For SMUD electric meters, you should select "purchased from the grid".

You may also track your property's water usage and waste generation, but these metrics are not required by Portfolio Manager to accurately benchmark your property. Water consumption and waste generation do not factor into your benchmarking score.

If you skip a meter and need to add it later, you can easily go back and add another meter in the future. If you accidentally select the wrong units for your meter, additional steps are required to fix this inaccuracy *only if* data has already been added to the meter. If no energy data has yet been added to the meter, you can adjust your unit selection without issue.

If there is renewable energy generation such as solar or wind at the site, refer to the FAQs section of <u>SMUD's Benchmarking Help</u> website for guidance adding green meters.

If you don't intend to set up Web Services automated meter uploads because you prefer to add your energy consumption data to Portfolio Manager by hand, add one electric grid meter to Portfolio Manager for each SMUD electric meter at the site.

If you do intend to enroll in Web Services, the next section contains very important information for you.

#### Setting up Energy Meters – Web Services User Notes

If you enroll in Web Services, SMUD will provide an automated upload of site energy consumption data into Portfolio Manager in one of two formats. You can request either individual meter data\*, or aggregated (summed) whole building data. The energy meter set up is different for each of these options.

\*Individual meter data is not available to large SMUD accounts on Campus Billing. These customers may only receive aggregated usage data.

For individual meter data: For each SMUD meter that you are enrolling in Web Services, add one electric grid meter to Portfolio Manager. Obtain a recent SMUD billing statement, and note the Account Number and Location Number associated with each meter at the site. Each SMUD meter will have a unique Meter Number, but may share a Location Number and Account Number with other meters.

Individual meter data is updated by SMUD monthly, after an initial transfer of up to 24 months of historical data.

For aggregated, whole building data: For SMUD meters that you are enrolling in Web Services, add one electric grid meter to Portfolio Manager for each Location Number at the site. If the site has multiple addresses, there may be a distinct Location Number for each address. SMUD will aggregate data for meters associated with each Location Number separately. Obtain a recent SMUD billing statement, and note one Meter Number associated with each Location Number at the site associated with each Location Number at the site.

Aggregated Data is provided in a one-time transmission of up to 24 months of historical, calendarized data. Monthly updates of aggregated data are not available.

Refer to the next section for more information on locating the Account Number, Location Number and Meter Number(s) on your SMUD Energy Statement.

Please see the rcompanion SMUD document <u>How to Enroll in Web Services</u> for full details about obtaining automated data uploads from SMUD.

#### Sample SMUD Billing Statement:

Please locate the Account Number, Location Number, and Meter Number.

|                                   |                       |   |                       |  |             |   |                          |  | C<br>Ph<br>Po           | USTOMER<br>one Inquiries 1 (<br>wer Outages 1 ( | BILL<br>888) 742-768<br>888) 456-768 |
|-----------------------------------|-----------------------|---|-----------------------|--|-------------|---|--------------------------|--|-------------------------|---|--------------------------------------|
| <b>9</b> 2                        | D. Box                | 1 <b>UD</b><br>15830, Sacra   | amen                  | to, CA 95852                                   | 2-0830      |   |                          |  |                         |   | Page 10                              |
| Account<br>SUSAN L<br>ssue Date   | Nun<br>CUST<br>e: 02/ | 9<br>nber: 12345<br>10MER<br>14/14                                      | 6                     |  |             |   | Past I<br>Curre<br>Total | Due Balance<br>nt Charges, I<br>Amount | Due Imme<br>Jue 03/25/1 | diately<br>4                                    | \$159.54<br>\$123.54<br>\$283.10     |
| Location:                         | 123 A                 | NY STREET   |                       |  | Usage       | History   |                          | Dates                                  | Days                    | kWh / Day                                       | \$/Day                               |
| SACRA<br>Rate: RSGH:<br>Cycle: 08 |                       | AMENTO 90000<br>H: Standard Residential Rate<br>Location Number: 876543 |                       | Billing Period<br>Last Year<br>Last Month      |             | 01/23/14 - 02/21/14<br>01/24/13 - 02/22/13<br>12/20/13 - 01/22/14 |                          | 30<br>30<br>34                         | 29.3<br>27.0<br>31.0    | \$4.12<br>\$3.70<br>\$4.64                      |                                      |
| Meter N                           | lo.                   | Current Mtr. F  | lead                  | Previous Met                                   | er Read     | Differe   | ence                     | Multiplier                             | Usage                   | Usage T   | ype                                  |
| 3456                              | 789                   | 299   | 998                   |  | 29119       | 8   | 379                      | 0                                      | 879                     | kWh   |                                      |
| Your avera                        | ge kW                 | h use per day   | ELE                   | CTRIC SERVICE                                  | E CHARGE    | ES/CRED   | ITS                      | USAGE                                  | TYPE                    | RATE  | TOTA                                 |
| 42-<br>24-                        | I                     | iluli   | Base<br>Base<br>Syst  | - Usage<br>Plus Usage<br>em Infrastructure     | Fixed Ch    | e016  |                          | 690<br>189                             | Winter kW<br>Winter kW  | h@ 0.095500<br>h@ 0.177100                      | 65.9<br>33.4<br>14.0                 |
|                                   |                       | JASONDJ   | Sola<br>Sacr<br>State | r Surcharge<br>amento County "<br>e Surcharge" | Tax*        |   |                          | 879                                    | kW                      | h @ 0.001500                                    | 1.3<br>8.6<br>0.2                    |
| 201                               | ,                     | 2014  | A) T<br>ACC           | OTAL ELECTRI                                   | C SERVIC    | E CHAR  | GES / C                  | OREDITS                                |                         |   | \$123.5                              |
|                                   |                       |   | Begi                  | nning balance fr                               | om last Sta | atement   |                          |  | /                       | 1   | 159.5                                |
|                                   |                       |   | B) P                  | REVIOUS BALA                                   | NCE         |   |                          |  |                         |   | \$0.0                                |
|                                   |                       |   | C) ]                  | TOTAL DUE                                      | (A+B)       |   |                          |  |                         |   | \$283.1                              |

About the Location Number(s) on your Energy Statement

- A SMUD Location Number is associated with an individual postal address, and is tied only to meters associated with that address.
- A building may have more than one Location Number if it has more than one postal address.
- Those seeking whole-building aggregated data should determine if their site has more than one Location Number. Contact <u>benchmark@smud.org</u> for assistance if needed.

# Setting up Energy Meters

To begin adding meters, go to the Energy tab and click "Add A Meter".



Click a meter type, like Electric or Natural Gas, to get started. Here we are adding one of each of the most common types of meters, Grid Electric, and Natural Gas, but all SMUD meters are electric. Indicate the sources of your property's energy. As you select different fuels, additional fields will appear. For SMUD electric meters, you should select "purchased from the grid".

| <ul> <li>Sources of Your Property's Energy</li> <li>What kind of energy do you want to track? Please select all that apply.</li> <li>Electric <ul> <li>purchased from the grid</li> <li>generated onsite with my own solar panels</li> <li>generated onsite with my own wind turbines</li> </ul> </li> <li>Natural Gas <ul> <li>How Many Meters?</li> <li>Propane</li> <li>Fuel Oil (No. 2)</li> <li>Diesel</li> </ul> </li> </ul>  | e are four ways to enter meter data. First, you can enter manually, starting below. Second, you can se<br>atted spreadsheet with just your bill data. Third, for advanced users, you can use our upload tool that<br>And finally, you can hire an organization that exchanges data to update your energy data automatica | t up your meters below, then upload a specially<br>allows you to set up all of your meters and enter bill<br>lly.   |
|---|--|---|
| How Many Meters?     1       Propane     Image: Construction of the second of the sec                               | Sources of Your Property's Energy<br>What kind of energy do you want to track? Please select all that apply.<br>Electric<br>purchased from the grid<br>How Many Meters? 1<br>generated onsite with my own solar panels<br>generated onsite with my own wind turbines<br>Natural Gas                                      | Tracking Energy<br>To track your energy, create an energy<br>meter for each source of energy from a<br>utility, a neighboring building, or an<br>onsite solar or wind panel. If you<br>purchase a raw fuel (e.g. gas) and<br>produce your own fuel (e.g., electricity<br>chilled water), you only need a meter for<br>the fuel you purchased (e.g. gas), and<br>not for the fuel you produce. |
| Propane     Image: Construction of the second | How Many Meters? 1   |   |
| Fuel Oil (No. 2)     If you've got onsite Solar (or Wind     Diesel     Solar (or Wind     still need to enter an Electric Grid   | Propane  | Two Meters Needed for Onsite Solar/Wind   |
| Diesel still need to enter an Electric Grid   | Fuel Oil (No. 2)   | If you've got onsite Solar (or Wind), yo  |
|   | Diesel   | still need to enter an Electric Grid Met  |

Once you have selected the number and types of meters that account for the total energy consumption at your site, click "Get Started" to continue.

| District Hot Water<br>District Chilled Water<br>Fuel Oil (No. 4)<br>Fuel Oil (No. 5 and No. 6)<br>Coal (anthracite)<br>Coal (bituminous)<br>Coke<br>Wood<br>Kerosene | Automate Your Meter<br>Characteristic Constraints and the service of |
|--|--|
| Fuel Oil (No. 1) Other: Get Started!   | Cancel   |

Indicate the Units for each fuel type by clicking in the field under Units and selecting from the drop-down menu that appears. Then, enter the date each meter was first billed in the format MM/DD/YYYY. This is normally the date the building went into service. (Use January 1 of the year the site was built if you are not sure).

| □ Natural Gas Natural Gas GJ 95 🗹  |   |
|--|---|
|  |   |
| Electric Grid Met Electric - Grid  Electric - Grid  Met Electric - Grid  Met Multiplication Btu) Multiplication Btu Multiplicat | 0 |

You can rename any meter by clicking into the meter name text field. It may be helpful to use "Aggregated Electric Meter - Location Number" for your Meter Name, to remind you that these meters contain summed site data.

Finally, click "Create Meters".

Tip: For SMUD meters, the units should be kWh. For natural gas meters, use therms.

You will see a green banner indicating you successfully created your meters, noting options for adding meter data.

| Your meters have been created!<br>up your meters and enter your en<br>OUR Meter Entries<br>ow we need actual energy consu                            | If you have your energy consum<br>nergy bills later.<br>for Demo Office<br>mption information in order to s    | nption information for the<br>Building<br>tart providing you with yo | se meters, you can enter it | : below. Or, you can <u>continue with s</u><br>your score! | setting |
|--|--|--|-----------------------------|--|---------|
| P. Energy Meter(s) for Den   | no Office Building   |  |                             |  |         |
| Start Date   | End Date   | Usage<br>therms  | Cost (\$)                   | Estimation   |         |
| Click to add an entry<br>Delete Selected Entries<br>Add Another Entry  |  |  |                             |  |         |
| Learn how to copy/paste Upload data in bulk fr Vou can copy/paste into the FAQ), or upload an Excel of spreadsheet template. Choose File No file chi | or this meter:<br>table above <u>(instructions in this</u><br>readsheet using our simple<br>osen <b>Upload</b> |  |                             |  |         |
| Electric Grid SAID 6099091   | 662  |  |                             |  |         |
| Electric Grid SAID 0988981   | 002  |  |                             | Continue   | Cancel  |

Data Entry Options:

- To add monthly meter entries <u>manually</u>, select "Click to add an entry". You will then need to type in the billing Start Date, End Date, and Usage as shown on your energy statements (cost is optional).
- Or, you can upload an Excel spreadsheet to add multiple meter entries at once by using the "spreadsheet template". There are help resources on the page to support this method of data entry.
- However, if you intend to enroll in <u>SMUD's Web Services</u> to upload your meter's usage automatically, simply click "Continue".

Next you will "Configure Your Meters", to let Portfolio Manager know which meters to count toward the total site energy use.

#### Selecting Energy Meters for Performance Metrics

Using the checkboxes, indicate which meters should count toward your total site energy consumption. Then, indicate whether the meters you selected account for all the energy consumed at the site. Finally, click "Apply Selections".



Tip: To accurately benchmark you building, you must account for all sources of energy consumed at the site. If you are benchmarking for official purposes, your Benchmarking Report will be rejected if you select "These meters do not account for the total energy consumption for your site".

Indicating which meters should be used to calculate your building's energy metrics, and whether the selected meters account for the building's entire energy consumption, is also known as "configuring your meters". This step is critically important, because these parameters are used by ENERGY STAR to determine your score.

Note: Submeters tracking tenant energy use should not be applied toward the total site energy consumption in cases where this energy use is also being tracked by a Master Meter.

At left you can review the total number of meters you entered, and the number of meters being used by Portfolio Manager to compute the site's performance metrics

| Portfolio Sharing Reporti  | ng Recognition  |  |                            |   |
|--|---|--|----------------------------|---|
| Demo Office Building   | lap It  | Not eligible to ap<br>ENERGY STAR<br>Certification | weather Source             | er-Normalized<br>EUI (kBtu/ft²) Why not<br>score? |
| ortfolio Manager Property ID: 5945543<br>ear Built: 1995   | -   |  | Curren                     | nt EUI: <u>N/A</u>                                |
| Edit   |   |  | Baselin                    | ne EUI: <u>N/A</u>                                |
|  |   |  |                            |   |
| 2 Energy Meters Total<br>2 - Used to Compute Metrics   | Meters - Used to Co<br>Change Meter Selections  | mpute Metrics (2)                                  |                            | Add A Meter                                       |
| 2 Energy Meters Total<br>2 - Used to Compute Metrics<br>Add A Meter  | Meters - Used to Co<br>Change Meter Selections<br>View as a Diagram<br>Name<br>Meter ID | Energy Type +                                      | Most Recent<br>Bill Date   | Add A Meter In Use? (Inactive Date)               |
| Meter Summary<br>2 Energy Meters Total<br>2 - Used to Compute Metrics<br>Add A Meter<br>Current Energy Date<br>Not Available | Name<br>Meter ID<br>Electric Grid Meter<br>30676635                                     | Energy Type +<br>Electric - Grid                   | Most Recent<br>Bill Date ≑ | Add A Meter In Use? (Inactive Date) Yes           |

The data you add to your meters in the next steps can now be used by Portfolio Manager to compute your site's EUI or ENERGY STAR score accurately. To adjust which meters which are being counted toward your site metrics in the future, from the Energy tab, click on "Change Meter Selections."

| Meter Summary               | Meters - Used to Co     | moute Metrics | (2) |             |                 |
|-----------------------------|-------------------------|---------------|-----|-------------|-----------------|
| Weter ourninary             | Meters - Osed to Ot     |               | (2) |             | Add A met       |
| 2 Energy Meters Total       | Change Meter Selections | J             |     |             |                 |
| 2 - Used to Compute Metrics | View as a Diagram       |               |     |             |                 |
|                             |                         |               |     |             |                 |
| Add A Meter                 | Name                    |               | . 1 | Most Recent | In Use?         |
|                             | Meter ID                | Energy Type   | •   | Bill Date   | (Inactive Date) |
|                             |                         |               | -   |             |                 |
| Current Energy Date         | Electric Grid Meter     | A SALESSAN    |     |             |                 |

Your property profile set-up is complete! See the "<u>How to Enroll in Web Services</u>" User Guide for next steps in setting up automated data uploads from SMUD, if desired.

# Section 3 – Additional Resources

#### How can I improve my ENERGY STAR score?

SMUD wants to help you save energy and improve your score! To find out more about the many programs that can help you save energy and money, check out:

- SMUD's Business Solutions page: <u>https://www.smud.org/en/Business-Solutions-and-Rebates/Manage-My-Energy</u>
- SMUD's Rebates, Financing, and Workshops page: <u>https://www.smud.org/en/Rebates-and-Savings-Tips</u>

#### Where can I get more help with Benchmarking and Web Services questions?

- Visit this SMUD-sponsored website for helpful hints and troubleshooting tips to help you benchmark your building and connect with Web Services: <u>https://smudbenchmarkinghelp.com/</u>
- ENERGY STAR Portfolio Manager offers extensive <u>help resources</u> to assist users. Explore resources designed to empower you to find solutions on your own.
- ENERGY STAR encourages users to explore the Portfolio Manager <u>Frequently Asked</u> <u>Questions (FAQs)</u> archive here: <u>https://portfoliomanager.zendesk.com/hc/en-us</u>.
- To access answers to many Frequently Asked Questions, visit <u>https://smudbenchmarkinghelp.com/pages/benchmarking-faqs</u> If you have a question you would like to see answered here, please feel free to submit it to <u>info@sellingenergy.com</u>. The benchmarking expert will be happy to help!
- You can contact SMUD at <u>Benchmark@SMUD.org</u> or (916) 732-7399.

#### Helpful Websites:

ENERGY STAR Portfolio Manager Login page: <u>www.energystar.gov/portfoliomanager</u>

California Energy Commission Benchmarking Mandate:

To keep up to date about the CA benchmarking mandate via email, subscribe to the "Benchmarking" list serve by completing the subscription box found on the right of <u>this webpage</u>. (http://www.energy.ca.gov/benchmarking/)

"SMUD" refers to the Sacramento Municipal Utility District, a publicly owned Electric Utility.

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