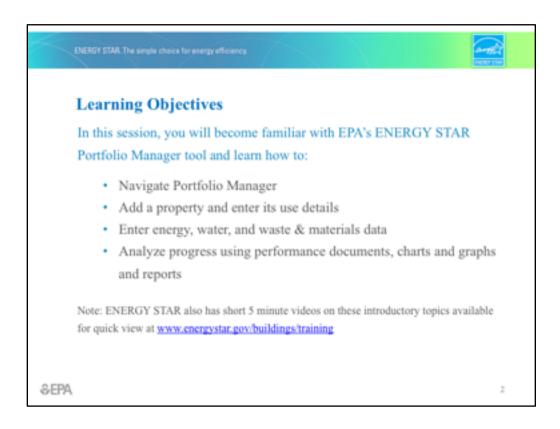
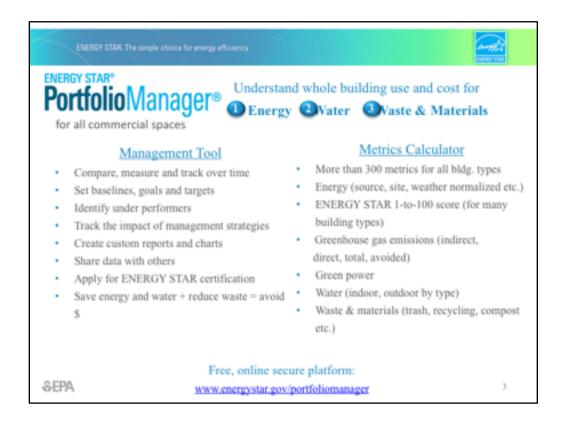


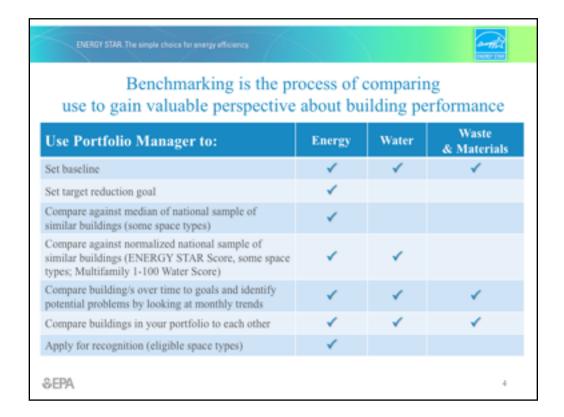
• Hello everyone and welcome to today's ENERGY STAR webinar, "Portfolio Manager 101," which will provide an overview of the tool. Thank you for joining us.



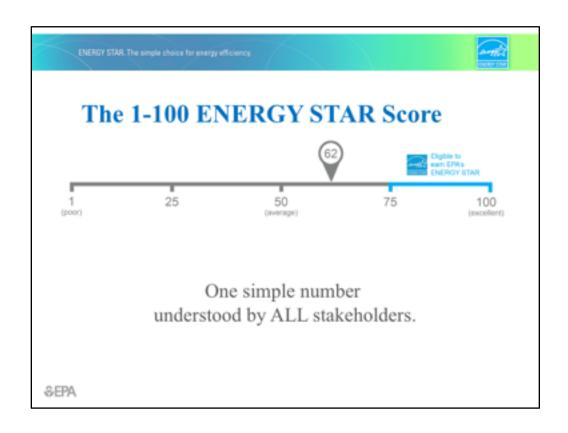
- Today we will demonstrate the core functionality of Portfolio Manager. You will learn all of the essential "how to" information you need to get up and running with Portfolio Manager, so you can start to track your buildings' energy, water, and waste & materials performance.
- Learning objectives include: how to navigate Portfolio Manager, how to add a single property and enter details, how to enter energy, water, and waste & materials data, and how to generate reports and track progress.
- Note that we have short 5 minute videos on many of these basic steps to using Portfolio Manager available at www.energystar.gov/buildings/training. These videos include "How to Set Up a Property in Portfolio Manager" and "How to Set Up Energy, Water, and Waste Meters in Portfolio Manager".



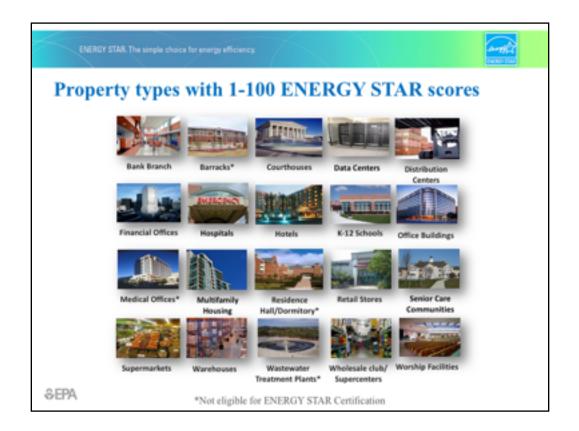
- EPA's ENERGY STAR measurement and tracking tool, Portfolio Manager, is a free, online, secure resource for gaining valuable perspective about whole building energy and water consumption and waste and materials and costs for all types of commercial properties. Access Portfolio Manager via the URL shown on the slide www.energystar.gov/portfoliomanager.
- Portfolio Manager helps to organize and inform your resource management strategy. Use it for all commercial properties to compare, measure and track energy water and waste over time, to set baselines, goals and targets, and set investment priorities by identifying under performing buildings. Resources are limited and the tool can help you be strategic in how you allocate them to get the greatest benefit from your energy and other projects and also track the impact of the projects and management strategies.
- Portfolio Manager comes replete with a standard and custom reporting feature and these
 reports and charts can be shared with other Portfolio Manager users along with your Portfolio
 Manager building records, should you want to share benchmarking duties with your coworkers, for example.
- Part of any good energy management strategy is to acknowledge and reward accomplishments. Certain property types are eligible for special recognition through ENERGY STAR Certification when you use Portfolio Manager.
- However, the ENERGY STAR Score is only 1 of over 300 hundred metrics to measure performance, such as source, site and weather normalized energy use and energy use intensity. Greenhouse gas emission and green power metrics associated with energy purchases and production are also available. For water, Portfolio Manager tracks indoor and outdoor water by type, for example, municipally supplied water and alternative water. For waste and materials, 29 different types of waste and their disposal methods can be tracked, for example, trash, recycling and compost.
- Bottom line: Portfolio Manager is both a management tool and a metrics calculator for tracking and benchmarking any building's energy, water, and waste, which can help identify areas to save and avoid unnecessary spending.



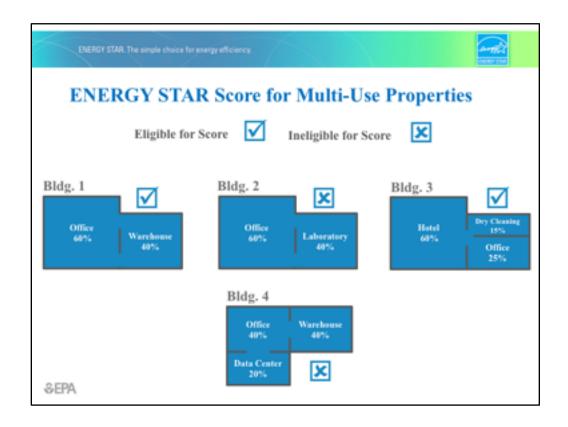
- So, what do we mean by "benchmarking"? Benchmarking is the process of comparing use to gain valuable perspective about building performance; Portfolio Manager offers several ways to compare energy and water use and waste and materials amounts.
- For all three of these things a baseline can be established in Portfolio Manager. The baseline is the starting point, a 12 month period, against which to measure use.
- There are different ways to compare back to the baseline. First, for energy, you can establish a target reduction in Portfolio Manager to compare against a baseline that is the median energy use of a national sample of similar buildings. Second, you can establish a target reduction based on your desired ENERGY STAR Score which reflects your performance when compared to a normalized national sample of similar buildings. Or, third, you can set a target for energy use to be a desired percentage lower than the energy use for the baseline you established. In other words, you can compare a building/s performance—its energy, water and waste and materials use—over time to measure change and assess goals AND to identify problems by looking at monthly trends.
- Buildings can also be grouped in Portfolio Manager and compared to each other.
- And, certain property types, those eligible for the ENERGY STAR Score, can apply for special recognition if the Score is 75 or higher.
- Now there is a water score for multifamily building types as well.



So, what is the ENERGY STAR Score? The Score is a percentile ranking of your building compared to similar buildings nationwide. The Score was developed more than 15 years ago now, to offer context for assessing the relative performance of a building compared to its peers and to provide one simple number understood by all stakeholders. On this scale, 50 represents median performance. A score of 62 means that the property performs better than 62% of it's peers and a 75 means that the property performs better than 75% of similar buildings nationwide, and is the minimum score required to earn ENERGY STAR Certification.



- These are the property types eligible for the ENERGY STAR Score. They are eligible for the score because there is a robust reference data set for these space types where EPA has found meaningful relationships between space types and how they use energy. So, when you enter a property in PM as one of these types, your actual data can be compared to the reference data set to generate the ENERGY STAR Score. If you don't see a particular space type on this list it means that an ENERGY STAR Score for that type is not available. Common examples include museums, libraries, police stations and convention centers. But keep in mind that while there is no Score for these property types, their performance overtime can still be tracked in Portfolio Manager using other metrics, like weather normalized energy use, for example.
- For properties noted with an asterisk (barracks, medical offices, residence halls, and wastewater treatment plants) there is an ENERGY STAR Score, but these properties are not eligible for certification at this time.
- For more information about eligibility: http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/understand-metrics/eligibility



It is not uncommon for a property to have multiple property types within it. A multi-use property can receive the ENERGY STAR Score and receive certification, but these two conditions apply: 1) Seventy-five percent (75%) of the property's Gross Floor Area (GFA) must be comprised of property types that are eligible for an ENERGY STAR Score; and, 2) More than fifty percent (50%) of the GFA must be comprised of one eligible property type (excluding parking).

For example, Building 1 on the slide depicts a property that is 60% office and 40% warehouse. This space is eligible for a Score and certification because both property types are eligible for a Score, and because the office is more than 50% of the total GFA.

In Building 2, even though the office is more than 50% of the GFA, this building is ineligible for the Score because it doesn't meet the 75% minimum requirement. In other words, 40% of the space is comprised of lab, which is an ineligible property type.

Building 3 is eligible for a Score because it does meet the 75% minimum requirement—hotel and office are both eligible space types and combined make up 85% of the building GFA. This building is also eligible because the hotel is more than 50%.

Finally, Building 4 is not eligible for the Score, even though all three space types within it are eligible property types. This is because no one eligible property type is more than 50% of the total GFA.



ENERGY STAR Portfolio Manager - Canada

- The tool has been adapted to include Canadian weather data, postal codes, both official languages, the metric system and other data specific to Canada.
- Property types Include:
 - · Financial Office
 - · K-12 School
 - Hospitals
 - Medical Office
 - Office
 - · Residential Care Facility
 - · Senior Care Community
 - · Supermarket/Grocery Store
- Scores are based on a model developed by Natural Resources Canada using data from Canadian buildings.

&EPA

8

The Canadian property types on this slide can earn the ENERGY STAR Score now that tool has been adapted in partnership with Natural Resources Canada to include Canadian weather data, postal codes, both official languages, the metric system, and other Canadian data.

For more information about benchmarking Canadian properties, please see these FAQs:

https://portfoliomanager.zendesk.com/hc/en-us/articles/211696987-Which-property-types-can-get-a-s core-in-C anada-

https://portfoliomanager.zendesk.com/hc/en-us/articles/211027228-What-is-Canada-s-role-in-Portfolio-Manager-

https://portfoliomanager.zendesk.com/hc/en-us/articles/215876957-Can-I-get-certification-for-my-Canadian-properties-

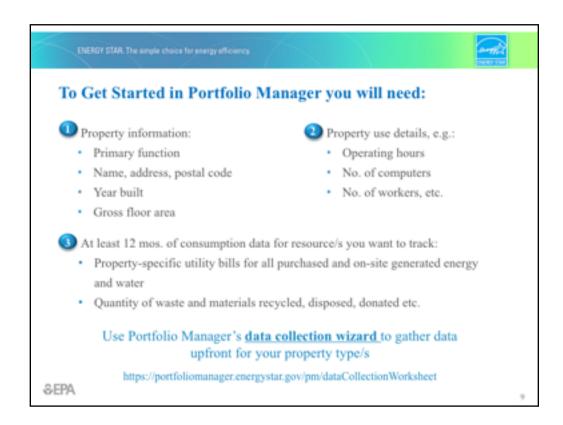
Please direct all questions about Canadian properties to Natural Resources Canada at:

Toll free: 1-877-360-5500 Ottawa local: 613-992-3245

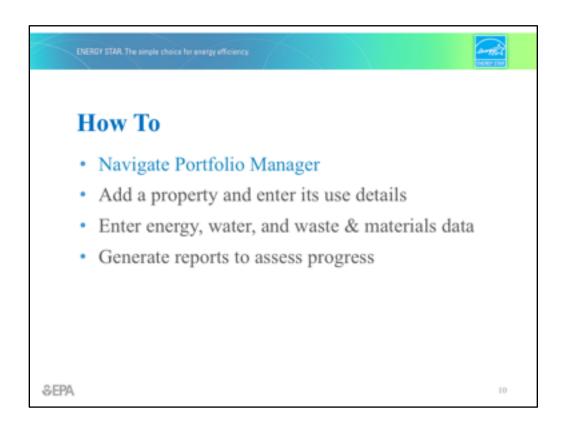
Email: info.services@nrcan-rncan.gc.ca

Website: http://www.nrcan.gc.ca/energy/efficiency/buildings/energy-

benchmarking/13603



- To create a record in Portfolio Manager, all you need are the items listed under number 1 on this slide: the property's primary function, name, address and postal code, the year built and the gross floor area. Enter those details and you have a record.
- If you are interested in generating the ENERGY STAR Score, you will also need property use details. The details are considered in Portfolio Manager to be the drivers of energy use in buildings. They will change according to the property type you are entering and Portfolio Manager will prompt you accordingly. The drivers of energy use in an office building will differ from those of a hotel, for example.
- Lastly, you will need consumption data for the resources you're interested in tracking. To generate metrics you will need at least 12 mos. of data because all metrics in Portfolio Manager are annualized. For energy and water this information typically comes from utility bills which you will need for all purchased and on site generated energy, and the same for water. And for waste, you will need the quantity of waste and materials recycled, disposed, donated, etc. The information may come from a measurement from your waste hauler, or from the size of the bin.
- The ENERGY STAR Program offers a very handy data collection wizard that creates a PDF or a Word document with all of the necessary inputs for the property type or types you wish to enter in Portfolio Manager. You can use the wizard, then collect the necessary data, so that you have everything you need when you sit down at your computer to create the Portfolio Manager record. The collection wizard helps reduce the amount of time you go back and forth to get the data you'll need.
- Find the data collection wizard here: https://portfoliomanager.energystar.gov/pm/dataCollectionWorksheet



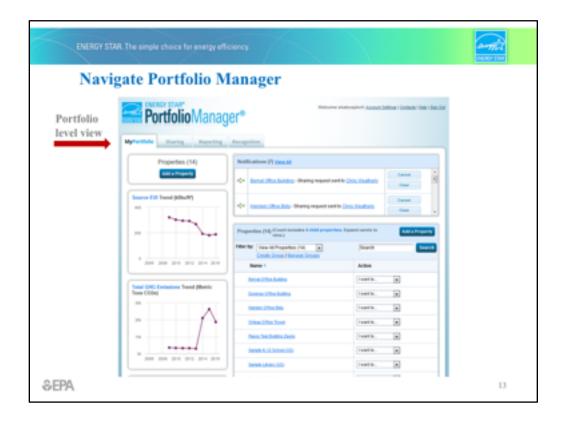
• With this background in mind, let's start with navigating Portfolio Manager.



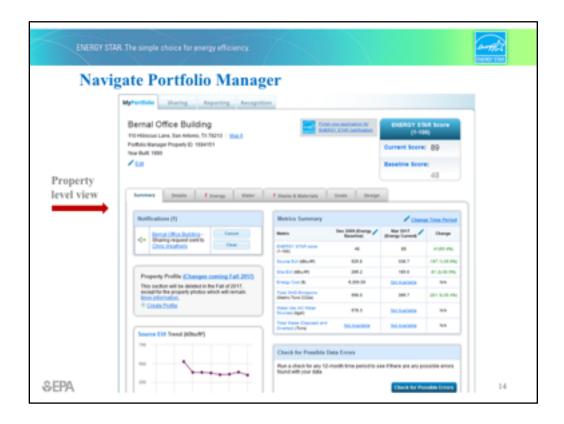
• Portfolio Manager's navigation is very intuitive. It uses a tabbed structure that makes it easy to find your way around the tool. There are four tabs at the portfolio level and 7 tabs at the property level.



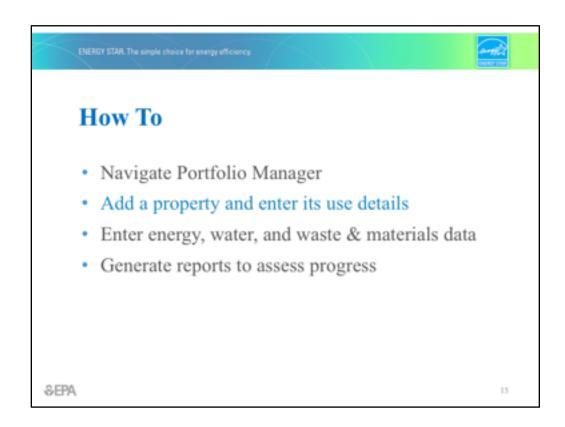
To create username and password and to login go to www.energystar.gov/portfoliomanager and follow the prompts on the screen – creating a new account is very simple.



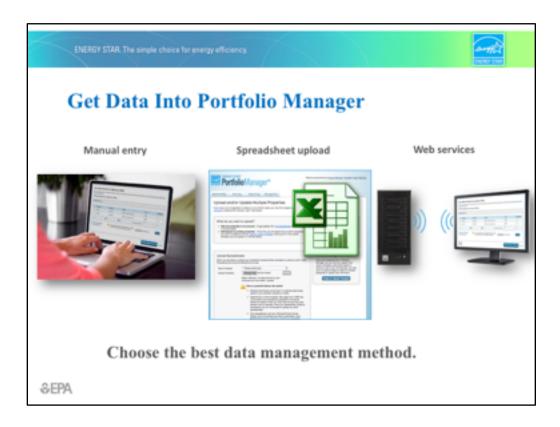
- The point of this slide is to orient you to Portfolio Manager's basic navigation.
- The portfolio-level tabs are listed across the top of the screen. We are looking at the MyPortfolio page here. You can also click on Sharing, Reporting, or Recognition from this page.
- The portfolio page automatically loads with your list of properties, two charts on the left hand side, and a list of notifications. These can be requests to connect with other users, notices that someone accepted a property that you shared, or others.
- The Help button in the top right corner will bring you to the Portfolio Manager help menu.



- After you click on a property name, you will see another set of property-level tabs.
 With these tabs, you can navigate between a summary of the property, property
 details, and meter data. You can also set and track progress against specific
 performance goals, and compare a building's current energy performance against its
 initial design.
- Clicking on the Portfolio Manager logo in the top left-hand corner will always take you back to the MyPortfolio page to see the list of all of your properties.



• This completes our first objective, navigating portfolio manager. Now, we will discuss adding a property and entering details about it.

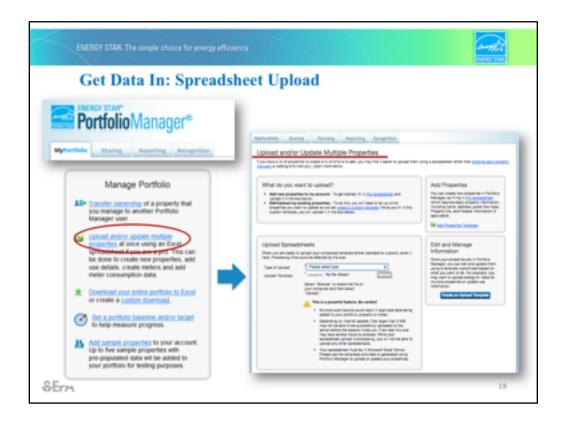


There are three ways to enter data for your property or portfolio:

- 1. The most basic approach is to enter data manually (create/update one property or meter at a time). This presentation walks through the steps of how to manually create a property record.
- 2. Another way is to upload data using spreadsheet templates to enter one building or multiple buildings, use details about the building or buildings, and meters and consumption data for meters.
- 3. The third way is to work with third-party providers that exchange data directly with Portfolio Manager via web services



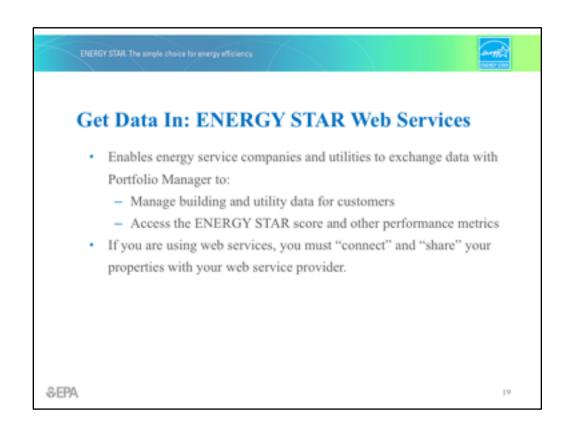
• To add a building manually, select "Add a Property" from the top left corner of the MyPortfolio page. Entering data manually is easier then ever because multiple prompts and tips will guide you in entering your property's information correctly.



• To use spreadsheet uploads, select "Upload and/or update multiple properties" from the Manage Portfolio menu on the bottom left of the MyPortfolio page. Then, from the page Upload and/or Update Multiple Properties, select the type of upload you would like to perform. Your options include adding properties, adding meters, adding meter consumption and updating property information. Portfolio Manager will generate a spreadsheet based on your selection. Fill out the spreadsheet and save it to your computer. Then, return to the Upload and/or Update Multiple Properties page and upload the spreadsheet. The data in your spreadsheet will be added to Portfolio Manager.

• The spreadsheet upload feature is powerful, so be careful:

- Multiple uploads could result in duplicate data being added to your property.
- Depending on internet speeds, files larger than 2 MG may not successfully upload
 to the server before the session times out. Files near this size may take several
 hours to process. While your spreadsheet upload is processing, you will not be able
 to upload any other spreadsheets.
- Your spreadsheet must be in Microsoft Excel format. Please use the templates in Portfolio Manager as they are, don't edit the format of the spreadsheets.
- Portfolio Manager 301 demonstrates how to use spreadsheet uploads in more details, and for more information there is a very handy 5 minute instructional video here: at www.energystar.gov/buildings/training.



- The 3rd option for entering data is to utilize the services of ENERGY STAR partners
 that are set up to exchange data directly with Portfolio Manager via web services.
 This will be an energy service company or a utility. Web services provide the
 advantage of avoiding manual entry. The third party service provider or utility does
 that for you digitally.
- To utilize web services, it is necessary to connect and share with your provider. We discuss how to connect and share in Portfolio Manager 201 and there is very handy 5-minute video available on this topic here: at www.energystar.gov/buildings/training
- Your utility or third party provider will also have a set of instructions for enabling web services. Check with your provider for more details.
- Finally, there is a list of third party providers and utilities who can exchange data located towards the bottom of this page:

 https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/enter-data-portfolio-manager.



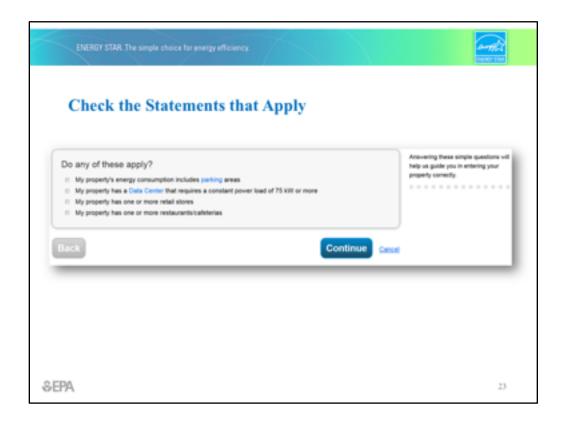
• Now, let's walk through the process of manually entering a building. To start, click the "Add Property" button in the top left-hand corner of the "My Portfolio" tab to access a wizard to "Set up a Property."



- This wizard is the first of many prompts that will help you correctly benchmark your property.
- From here, select the best property type. There are 85 options. Not all of these 85 types are eligible to earn the ENERGY STAR Score. However, as we noted earlier, benchmarking is valuable for all properties, so select the property type that best reflects your property. This will help you analyze the performance of the building and compare it to similar buildings in your portfolio.
- Next, designate the number of physical buildings located on your property, either none, one, or more than one. Choose "None" if you are benchmarking part of building (a space within a building) or "One" if you are benchmarking a single building and "More than one" if you are benchmarking a campus. In the case of the latter, make sure to review the Campus Guidance for tips on entering properties with multiple buildings. Also note that spaces within a building, say a single story for example, will generate an ENERGY STAR Score but are not eligible for ES Certification. The unit for ENERGY STAR Certification is individually metered single buildings, and in some cases campuses for the property types Hotel, Multifamily, Senior Care Center, Hospital or K-12 School.
- Finally, select the Construction Status of your property. Most properties will be "existing," but properties could also be entered as "Design" for buildings that have not yet been constructed. Use the design option to evaluate the energy efficiency of the design project, to apply for Designed to Earn the ENERGY STAR Certification, and to compare designed energy use against actual use once the building is occupied and operational. "Test Property" is another option here, if your entering a fictitious property to test Portfolio Manager's features. You can test a building in the design phase or as an existing building.
- Click "Get Started" to move to the next page.

ENERGY STAR. The simple	choice for energy effic	ency	
Basic Propo	erty Infor	mation	
	Portfoli	• • • • • • • • • • • • • • • • • • •	
		ty: Basic Property Information or propely models are fet plus of use to tok up your propely and its abbress.	
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	Inspired Area	Supplies of the best legal for and health profiting Continues about an addition and the second Supplies Supplie	
&EPA			22

- On the next page, enter general information, including property address, size, gross floor area and occupancy percentage.
- There are different ways of measuring gross floor area but in Portfolio Manager, it is the total property floor area, measured from the principal exterior surfaces of the building. Select the link next to Gross Floor Area on this page for more information.
- Irrigated area is not a required field. It is used in calculating the Water Score for Multifamily housing.
- Occupancy is the percentage of your property's Gross Floor Area (GFA) that is occupied and operational. For example, if you have a 10 story office building, that on average has 9 of its 10 floors fully leased and occupied, the occupancy would be 90%. If there are people working in all floors or areas of the building then it is 100% occupied. Also, there is only one occupancy rate for each property as a whole. The occupancy rate is not used in calculating the ENERGY STAR Score or other metrics, however, there are minimum occupancy requirements for ENERGY STAR Certification for certain property types. Offices, banks, courthouses, and financial centers need to be at least 50% occupied to apply for ES Certification. Hotels require 55% occupancy. Multifamily requires 75% occupancy.



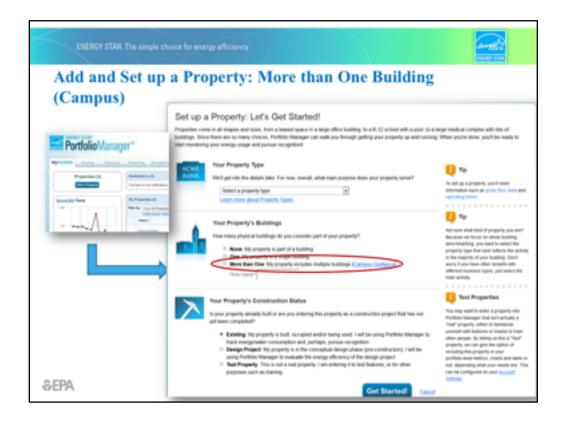
- You will also be prompted to provide answers to a few additional questions that will help Portfolio Manager to guide you in entering your property correctly. The selection choices for "Do any of these apply?" varies depending on which primary function you choose.
- For all property types, there will be a question about parking. If your parking areas are separately metered from the building, you do not need to check this box. However, it is very common for parking areas and buildings to share a meter. If this is the case, check the box. On the next screen, Portfolio Manager will prompt you to enter more information about parking. Then, because the ES Score is an assessment of building performance not parking area performance, Portfolio Manager will estimate the amount of energy parking uses and subtract that out before calculating the building's performance.
- Parking refers to buildings and lots used for parking vehicles. This includes open
 parking lots, partially enclosed parking structures, and completely enclosed (or
 underground) parking structures. Parking structures may be free standing or
 physically connected to the property.



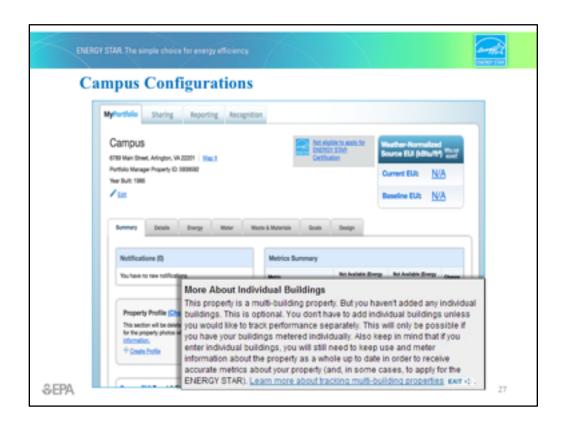
- Next, you will be asked to provide more details for your primary property type. Each property type will have different use details. As you pass your mouse over each use detail, the definition will appear and the glossary will open if you click on the link.
- You may also want to edit the name of your property type to something more specific like Office Space 1, or Occupied Office Space.
- If you are in the middle of benchmarking and realize that you don't have certain pieces of information in front of you, you can always use Default/Temporary values. However, to ensure the accuracy of your metrics and if you're interested in applying for ES Certification, remember to update these default values with actual information once you have it.
- You can also use the drop down menu on this page to "Add another type of use" for multi-use properties where the additional use type isn't already included in Portfolio Manager's definition of your primary property type. A good rule of them is to enter as few property types as possible. There are 4 exceptions to this rule when you should create a separate Property Use:
 - If it is a <u>Property Use Type that can get an ENERGY STAR Score</u> (note: Retail can only get a score if it is greater than 5,000 square feet):
 - If it accounts for more than 25% of the property's GFA
 - If it is a vacant/unoccupied Office
 - If the Hours of Operation differ by more than 10 hours from the main Property Use
- Select "Add Property" when you are done entering use details.



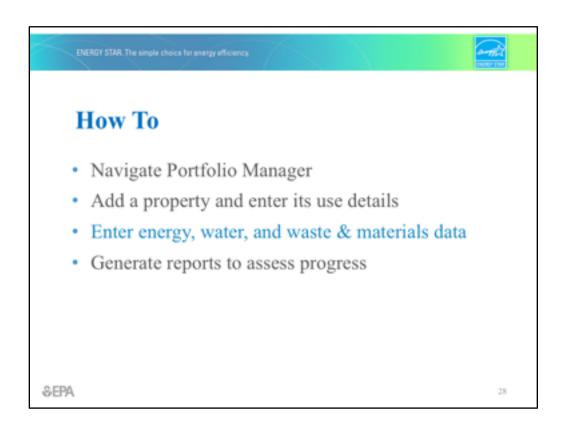
- Now the property is created! This is the property Summary tab. From here you can view the property's details, enter data for energy, water and waste, and set goals.
- Notice that there are no summary metrics displayed in the box in the top right. This is because there's no meter and consumption data entered for the property. So, next, we will cover how to set up meters.



- Before moving on, here is some additional information about campuses. Campuses are entered as a single "parent" property with multiple "child" buildings. This allows you to report on metrics at the campus level, while still being able to track performance of the individual buildings that make up this campus (assuming that you have the necessary building-level energy, water, and waste & materials data). For properties with multiple buildings, only Hotel, Hospital, K-12 School, Multifamily, and Senior Care Communities are eligible to receive a 1-100 ENERGY STAR score at the campus level.
- For more information about how to benchmark a campus, visit http://www.energystar.gov/buildings/tools-and-resources/how-benchmark-campus



- Once you define the campus as the main property there's flexibility in how you benchmark it. You can either benchmark the campus in aggregate, benchmark individually-metered buildings on the campus, or both.
- If you enter individual buildings, you will need to keep use and meter information up to date at both the building and campus level.



• This completes our second objective, adding a property and details. Next, we will learn about entering energy, water, and waste & materials data.



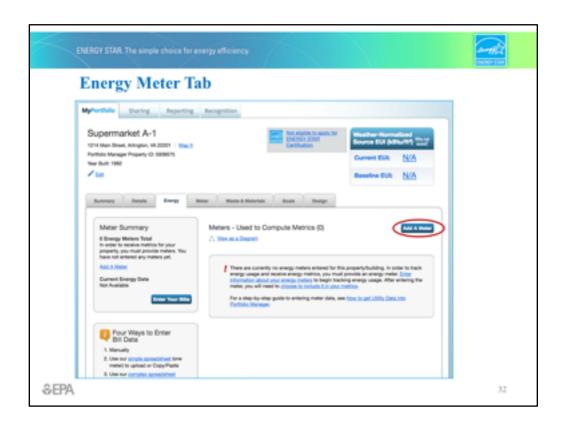
- In the property record, there are property-level tabs for energy, water and waste &
 materials. For each resource you would like to benchmark you will use the tabs to set
 up meters and enter utility data to receive related performance metrics for your
 property.
- Next, we'll give an overview of each meter. Then we'll walk through the entire process of setting up a meter using the energy meter as an example.



- Use the Water tab to enter water meters and water consumption.
- To get started, click 'Add a Meter" and follow the prompts offered by the handy wizard to enter water meters and then consumption data.
- Portfolio Manager tracks water meters based on the water source. There are four types: Municipally Supplied Potable or Reclaimed Water, Well Water and Other water (e.g., condensate or rainfall collection). The metrics for each of these water sources are tracked as Indoor, Outdoor or Mixed.
- Once water meters and consumption data are entered, the water metric display on the left will display water use intensity representing all sources of water entered. For multifamily properties it will display the Water Score for Multifamily if irrigated area has also been entered.



- Use the Waste and Materials tab to create meters and enter waste and materials, for example, trash, recyclables, composting, and 29 others like building materials and electronics.
- To get started, click 'Add a Meter" and follow the prompts offered by the handy wizard to enter waste and materials.
- You will be prompted to select what type of waste or material you would like to track, and then whether it is recycled, composted, donated/reused or disposed, and how often it is collected. Finally you are prompted to provide the weight and volume of what is collected, or Portfolio Manager provides an estimate based on the container size.
- You can further categorize your disposed waste by its destination, whether it ends up in a landfill, gets incinerated, or is converted to energy.
- You can also track waste or material according to whether it is picked up on a regular basis (like trash or recycling), or if the pick up is "intermittent" or one-time only like a donation of old office furniture.
- Next, let's walk through the entire process of setting up a meter using the energy meter as an example.



- Use the Energy tab to create meters and enter energy consumption.
- To get started, click 'Add a Meter" and follow the prompts offered by the handy wizard to enter energy meters and then consumption data.



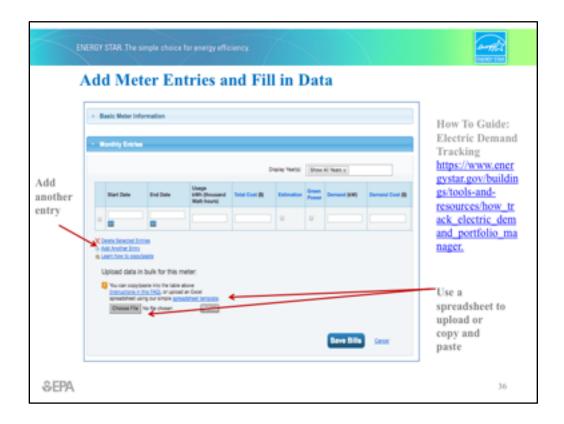
- On the "Getting Started Setting Up Meters" page, you will be prompted to identify all sources of energy consumed at the property, as well as the number of meters for each fuel source. Make sure to include every fuel consumed.
- For electricity, you will be asked to indicate whether the energy was purchased from the grid, or generated onsite via solar or wind power.



- On the "About Your Meters" page, click anywhere in the table to add data about your meters
- To enter units, select the accurate unit from the drop down menu.
- The "Date Meter Became Active" can be the date the building was built-typically, your meter becomes active when construction is complete and the building starts operating—or it can be the first day of the first bill for the first 12 mos. period you wish to benchmark.
- You only need to enter a date the meter became inactive if you want to note that a meter has been decommissioned.
- If your fuel is delivered in bulk (like fuel oil or propane) then check "Enter as Delivery."
- You can also add an additional meter from this page, if on the previous page you forgot one.
- Once you have defined the general characteristics of each meter, select "Create Meters" to begin entering your bills.



- On the next page, you will see the meters you have established. To expand each meter record, click the arrow to the left of the meter you would like to edit.
- All meters will be presented on the same page. This allows you to add data to
 multiple meters at the same time (no need to click through multiple meter entry
 pages).



- Next, enter consumption data for each meter by selecting "Add Another Entry" to enter the start and end date, usage, and cost. As with the prior page, you can click anywhere in the table to edit the corresponding data field. When you enter a start date, Portfolio Manager auto-populates the end date. Portfolio Manager will also auto-populate the next start date when you select "Add Another Entry" again.
- A quick note that PM now tracks demand and includes these three metrics in custom reports: Annual Maximum Demand (kW), Annual Maximum Demand (MM/YYYY), and Annual Maximum Demand (Meter Name (Meter ID))." We have a How to Guide on this topic: https://www.energystar.gov/buildings/tools-and-resources/how track electric demand portfolio manager.
- "Usage" is required. Cost is not required. However it is a best practice to enter cost to have access to handy metrics like energy cost per sq. foot, for example. Use "Estimation" whenever <u>you</u> make an estimation, for example if you have not received your bill yet. If the value you are entering comes directly from your utility bill, you do not need to check estimated, even though some utility bills are marked this way when they contain small estimates based on how the utility read your meter.
- To generate accurate metrics, enter at least 12 consecutive months of data for all fuels consumed in the building. For the most accurate metrics, enter the start and end dates on your utility bill. If the start and end dates fall in the middle of the month, you will need to enter 13 billing periods in order to get a complete 12 calendar months of data. For more information about acceptable meter entry time frames, see this FAQ: https://portfoliomanager.zendesk.com/hc/en-us/articles/211027768-Can-I-enter-energy-bills-that-are-not-monthly-Can-I-enter-one-energy-bill-for-the-entire-year
- You can also enter purchased solar and wind power by checking the "Green Power" box, which will then prompt additional questions about where the energy was purchased and what type of green power it is. Tracking green power purchases will affect the greenhouse gas emissions metrics for your property. More information about entering both purchased and onsite generated green power is available here:

 http://www.energystar.gov/buildings/tools-and-resources/portfolio-manager-technical-reference-green-power.
- Another option is to use a spreadsheet to upload consumption data, which is available on this page. It's a simple spreadsheet; there are only 5 columns. Once you have filled in the necessary data, you can upload the spreadsheet back into Portfolio Manager via this page, OR even easier, Cut and Paste into the first box.
- Make sure to select "Continue" after you populate the page.

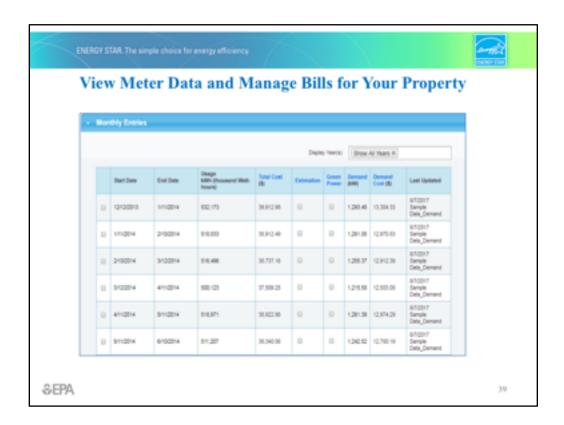


- The next step is to select meters to include in metrics. This page is important for Portfolio Manager to understand which meters should be applied to the total property energy consumption, and therefore should be used for calculations. Indicate that the meters do account for total energy consumption or that they do not account for total energy consumption.
- A note about campuses: If you are setting up a multi-building campus, and want to roll up any building-level meters to the larger property, this is where you will do it. In the campus scenario, be aware that you need to define the meters at the building level first, before you can associate them to the property level. To avoid double counting any energy, do not add sub-meters to property totals if the energy consumption they are tracking is also captured by the main meter.
- When you are done, click "Apply Selections."

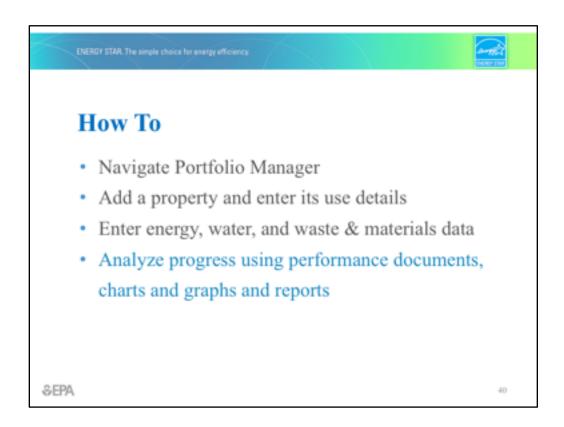


- Now, your meters are set up and you will see a note of congratulations back on the Energy tab.
- Here you can review a summary of and access the energy meters that are set up for the building.
- If you want to add your latest bills or update past entries, select "Enter Your Bills" or select the relevant meter.

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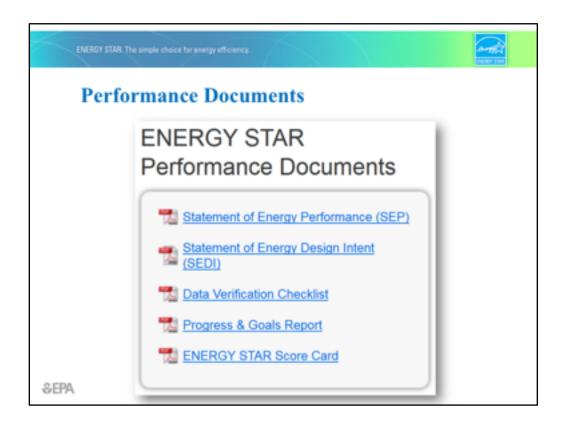
• After selecting "Enter Your Bills" or clicking on the relevant meter you can add billing periods or make any necessary edits.



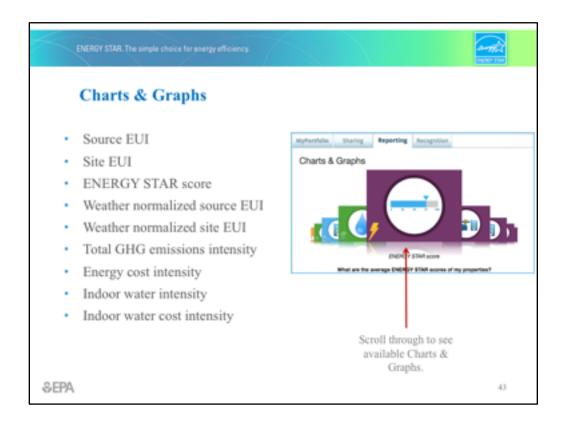
• That completes our third objective, entering energy, water, and waste & materials data. Now, we will discuss how to generate performance documents, charts and graphs and reports to analyze performance.



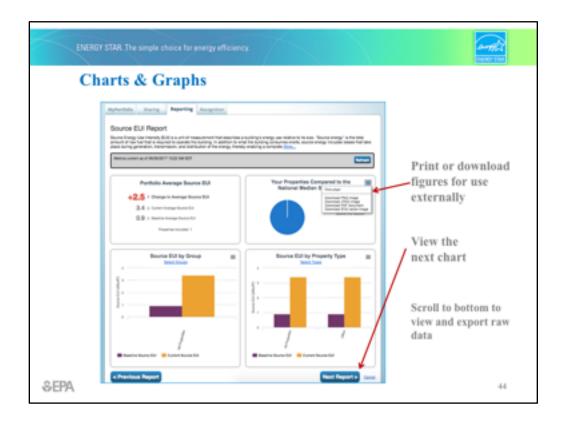
- Benchmarking can only drive action if you can clearly access and interpret the data you have entered into Portfolio Manager. The features on the Reporting tab will help you do this. From this tab you can download Performance Documents, generate charts and graphs and create pre-loaded and custom reports to export useful energy, water and waste and materials metrics to analyze building performance across a variety of measures.
- Today we'll provide an overview of these items and we discuss them in more details during Portfolio Manager 301.



- Performance Documents reflect details and performance about individual properties you have entered. There are five Performance Documents to choose from:
 - Statement of Energy Performance
 - Statement of Energy Design Intent
 - Data Verification Checklist
 - Progress and Goals Report
 - ENERGY STAR Scorecard
- Click on the one you'd like to generate and follow the additional prompts to select which property to include in the report which downloads in .PDF format.
- To save the Performance Document save the .PDF on your computer. Generated Performance Documents are not saved in Portfolio Manager.



- The charts & graphs feature is a pre-defined collection of metrics for at-a-glance results for your entire portfolio. Generate these charts by selecting the name of the chart or its icon. There are nine to choose from:
 - Source EUI Based on the total amount of raw fuel required to operate my properties, how much energy are my properties consuming relative to their sizes?
 - **Site EUI** Based on the energy consumption measured by my meters, how much energy are my properties consuming relative to their sizes?
 - **ENERGY STAR Score** What are the average ENERGY STAR scores of my properties?
 - Weather normalized source EUI source energy use intensity adjusted for weather
 - Weather normalized site EUI site energy use intensity adjusted for weather
 - Total GHG emissions intensity emissions intensity based on fuel mix
 - Energy cost intensity cost per square foot based on user-entered cost data
 - Indoor water intensity water consumption per square foot
 - **Indoor water cost intensity** cost per square foot based on user-entered cost data



- Here's an example of the "Source EUI" report. It includes portfolio averages, comparison to the national median, and energy use intensity by group and property type.
- You can select a specific group and specific property types to view.
- Each chart and graph in the reports can be printed or exported in a variety of formats (PDF, JPEG, PNG, SVG) for easy integration into external reports and presentations.
- At the bottom of this page, you can also view and export the raw data used to create each chart/graph.

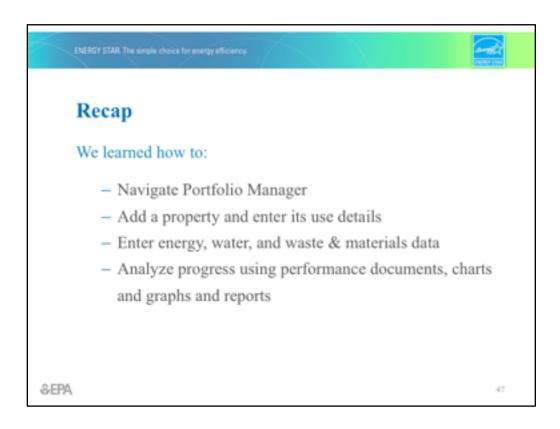


Towards the bottom of the Reporting tab, you will see a set of nine standard reports (listed on next slide).

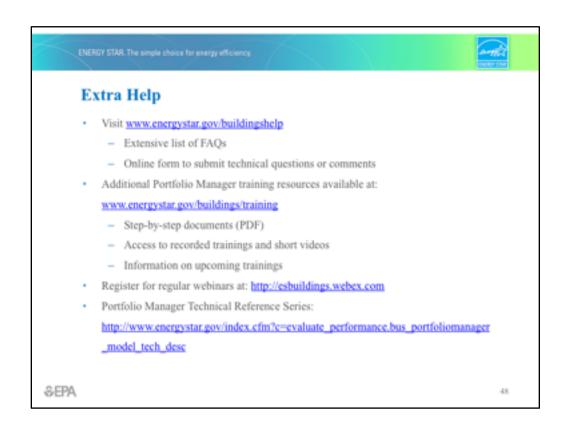
- These reports contain key metrics and information that you can use to easily assess your portfolio's performance and progress across a variety of parameters.
- To generate any of these reports, go to the "Action" drop-down menu and select "I want to... Generate New Report." You will be asked to select the timeframe for this report, as well as the properties to include.
- Once you generate the report, you will be able to view it from the "Action" dropdown menu. You can also download the report in Excel and XML formats, update the report to include additional properties and/or new timeframes, and generate a new report.
- In the third training, Portfolio Manager 301, we will discuss how to use the custom reporting feature to further tailor the specific reports that you can generate for your properties.



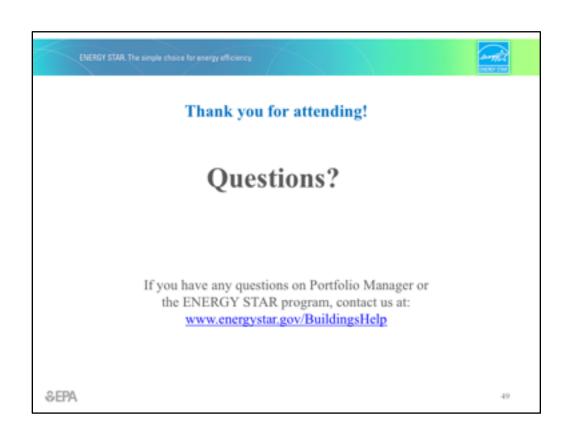
- Here is a list of the 9 standard reports that are pre-loaded with popular combinations of metrics.
- EPA has also developed a PDF document that summarizes each of these reports, as well as the list of metrics delivered for each report, available here: https://www.energystar.gov/buildings/tools-and-resources/portfolio-managerstandard-reports



- In conclusion, these are the topics we discussed today.
- We hope that you will attend the follow-on training session, "Portfolio Manager 201." In that session, you will take a deeper dive into more advanced Portfolio Manager functionalities such as:
 - editing existing property data
 - correcting and updating historical information
 - using the Data Quality Checker
 - sharing property data

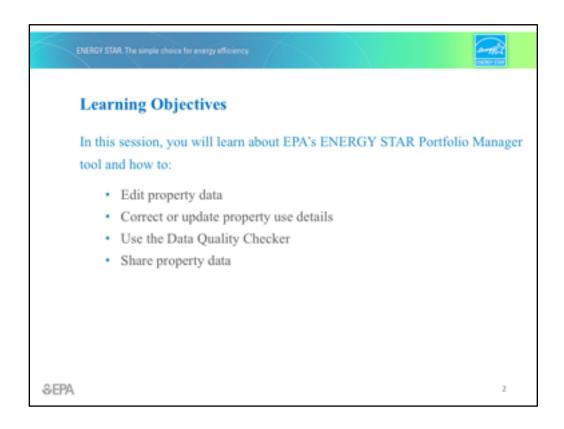


• Please be aware of these additional resources, which will help you as you get started in Portfolio Manager.

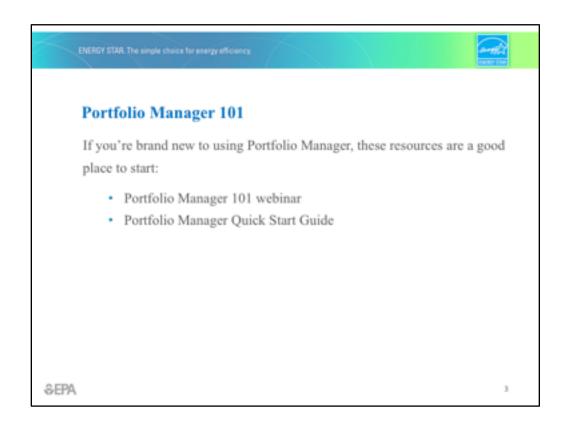




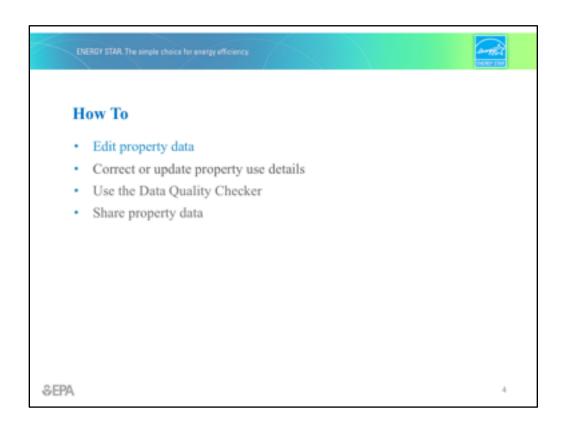
 Hello to everyone and welcome to today's ENERGY STAR webinar, "Portfolio Manager 201," which will provide a closer look at some of the more advanced features of the tool. Thank you for joining us.



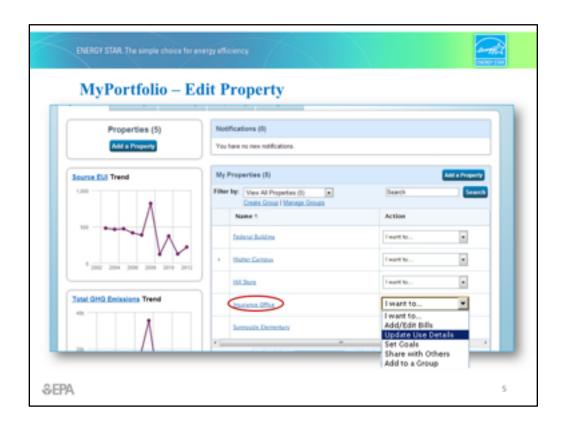
• Today we'll dive a little deeper and look at how to maintain accurate data in Portfolio Manager. These are today's learning objectives.



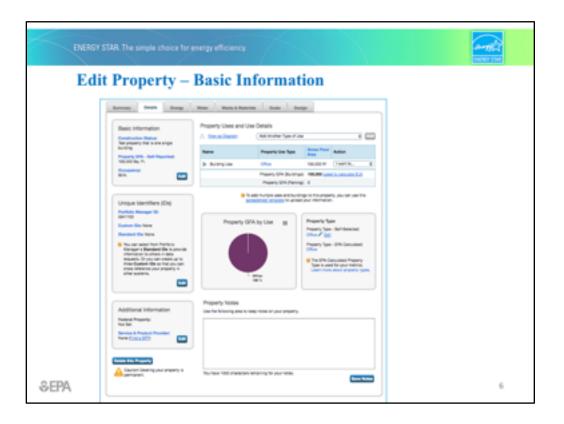
- We'll jump right into these learning objectives, assuming that you're already familiar with the initial step of creating records in Portfolio Manager.
- If not, please take a look at PM 101 to learn how to enter a property.
- Another great resource is the PM Quick Start Guide. It's a 3-page pdf that walks through
 the steps of entering a building for the first time. It's available at:
 https://www.energystar.gov/buildings/facility-owners-and-managers/existingbuildings/use-portfolio-manager/get-started-benchmarking



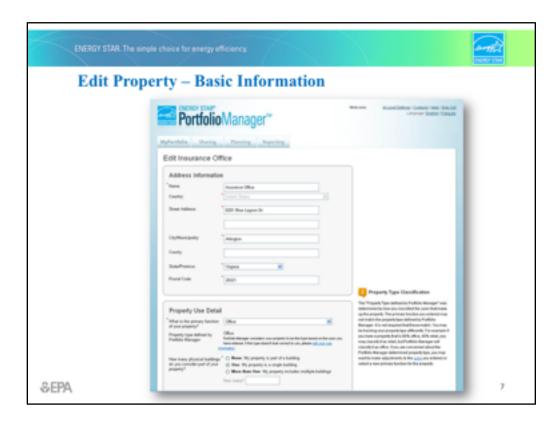
• Let's start with editing property data.



- Now that you have your building set up and you've entered the essential information in the tool, you should ensure that the property is set up in a way that best reflects how it actually functions. If necessary, you can correct or update your property's information.
- From the MyPortfolio page, you can click on the name of the building that you would like to edit, and then navigate to the Details tab. Or you can select "Update Use Details" from the drop-down list next to the building's name.



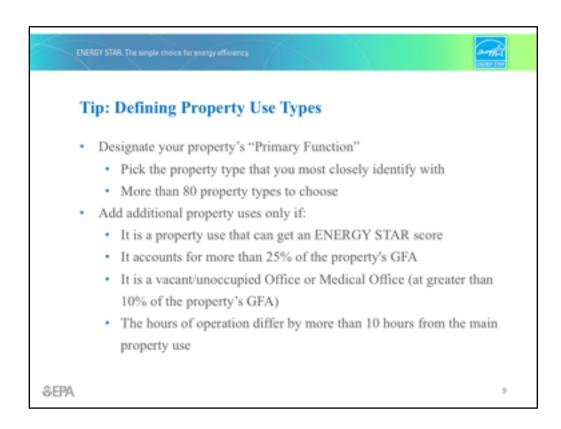
- From the "Details" page, you will be able to:
 - Edit basic property information
 - Edit Property IDs
 - Designate a Service and Product Provider (SPP)
 - Edit Property Use Details (number of hours/workers)
 - Add an additional Property Use (if necessary)
- To edit basic property information, select "Edit"



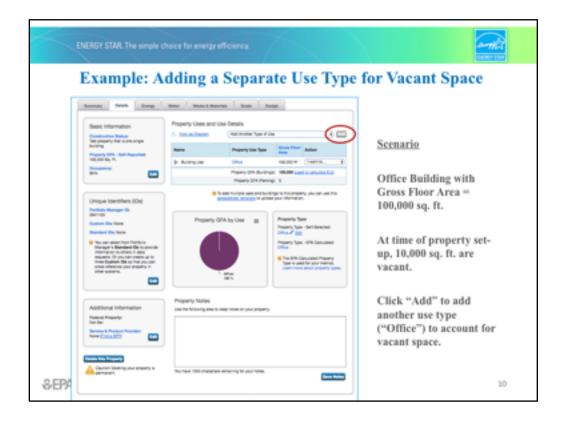
- From here, you will be able to edit the property's address, though the country cannot be changed (for more info see: https://portfoliomanager.zendesk.com/hc/en-us/articles/211029098-Can-I-change-my-property-s-country-location-)
- Then, you will be able to edit additional property information.



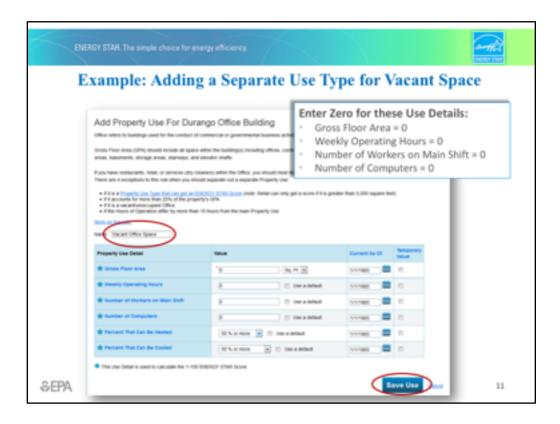
- Under "Property Use Detail," you can edit all of the basic information that you initially entered for your building, including:
 - Primary function
 - Whether the property is part of a larger building, is a single building, or includes multiple buildings
 - Change the total Gross Floor Area for the property
 - Change the reported occupancy
 - Identify whether the property's data is maintained by a service and product provider (if it is, you will be prompted to indicate the SPP, who must be in your contacts list. This is important, as it allows SPPs that are ENERGY STAR partners to get credit for assisting with the benchmarking of a building).
 - Indicate whether or not the building is a Federal property
- If you make any changes on this page, click **Update Property** at the bottom



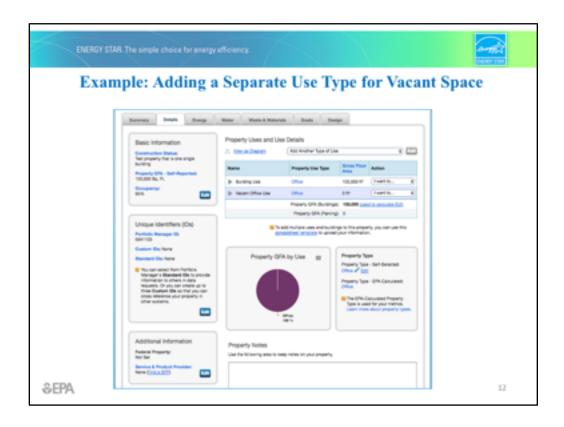
- The Primary Function is the Property type with which the building most closely identifies. You can change it at any time. If you have a property that is half hotel, half office, which do you think of it as? Refer to the glossary for Property Use definitions if you are unsure what category your building falls under. Typically, a building's primary function will be represented by a majority of the building's square footage.
- And, depending on the property type you selected when setting up the building, and how you responded to specific prompts, the tool may have already guided you in setting up additional property-specific use types, such as parking, data centers, and/or swimming pools.
- You may wonder if it is necessary to add additional Property Uses to your building. For
 example, if you have an Office with ground floor retail, do you add the retail as a
 separate Property Use? The short answer is probably not. In general, the goal is to add
 as few Property Uses as possible. But there are 4 exceptions to this rule listed here. You
 would not break out a ground floor retails shop unless it met one of the exceptions.
- Another example are the supporting spaces in office buildings such as conference rooms, common areas, and mechanical rooms. The definition for the property type "office" in Portfolio Manager's glossary says to include these spaces within the gross floor area for office, therefore they do not need to be added as additional property types.



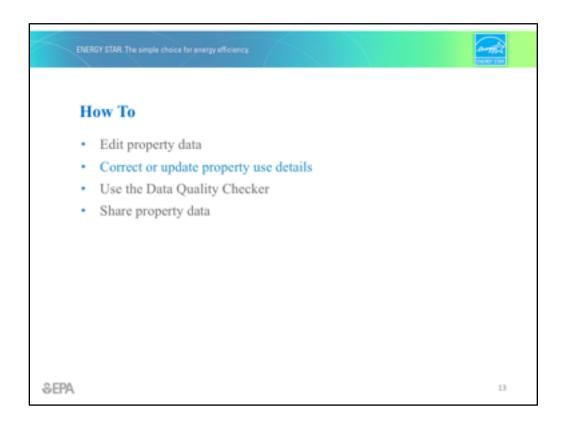
- Let's use the example of vacant space to demonstrate how to add an additional property use type. If you have an office or medical building where vacancy fluctuates over time, it is necessary to break out the vacant space as a separate property use, in order to get an accurate ENERGY STAR Score.
- In this example, there is currently 10,000 sq ft of vacant space that recently came open.
 We're going to add this vacant space as if it existed when we first started tracking the building.
- To add a new vacant space go the Property Use drop down menu on the Details tab, choose the Property Use that best matches the vacant space (typically, this would be the same as the primary building function), and then click "Add."
- "How Do I Add A New Property Use to An Existing Property."



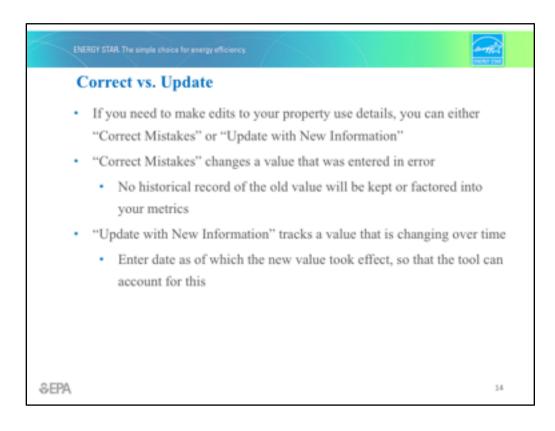
- The first thing you may want to do is to rename the space to distinguish it as vacant space and then, "Save Use."
- When defining the Property Use Details for vacant space, you will enter zero for gross floor area, weekly operating hours, number of computers, number of workers. Select the appropriate percent of the vacant space floor area that can be heated and cooled, typically 50% or more.
- The "Current as Of" date will default to the year built. Do not change this date.



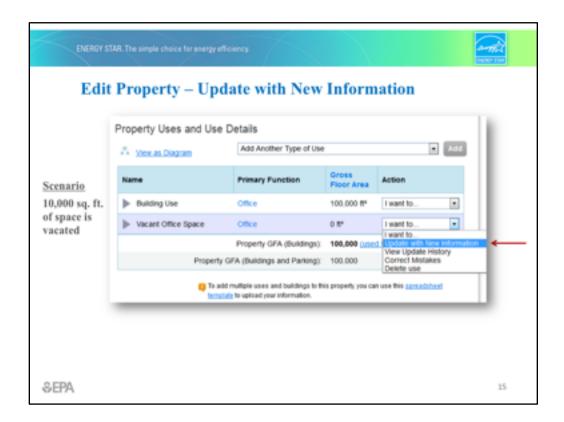
- The result is a record that includes both property uses, the occupied office space and the vacant office space. Now that the vacant space is added, the next step will be to update the vacant space with the correct square footage. We'll do this next.
- But first, note that we have focused on the specific example of adding another Property Use to reflect vacant space in a building. But the same process holds any time you need to add an additional Property Use: first, make sure that you really need to break out that Property Use; next, use the "Add Another Type of Use" function to set up the new Property Use; and finally, do a double-check to make sure that the gross floor area of your uses ("Property GFA (Buildings)") matches the Gross Floor Area you initially entered when setting up the building ("Property GFA Self-Reported"). In this example, there is no discrepancy because we've entered "0" for the vacant space square footage. As we update the square footage to reflect the fluctuation in vacant space, a discrepancy will occur. If there is a discrepancy, an alert will appear and will prompt you to make sure to update or correct the record as necessary. We'll talk about this in the next section.



Now, we will discuss correcting and updating Property Use Details.



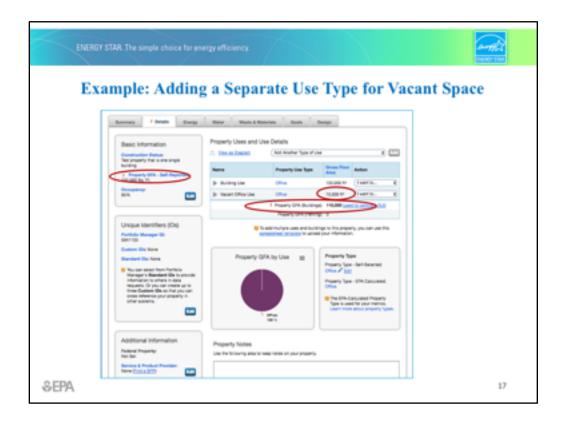
- If you need to make edits to your Property Use Details, you can either "Correct Mistakes" or "Update with New Information."
- The key difference is that you would use "Correct Mistakes" to change a value that was
 entered in error. No historical record of the old value will be kept or factored into your
 metrics.
- You would use "Update with New Information" to track a value that has changed over time. When updating a value, you indicate the date as of which the new value took effect, so that the tool can account for this. Updating information like parking areas works the same way as updating any other space type.



- We're going to start with "Update with New Information" to correctly account for the vacant space we added in the last step.
- From the Action drop down menu next to the Property Use that needs to be changed, select "Update with new Information."



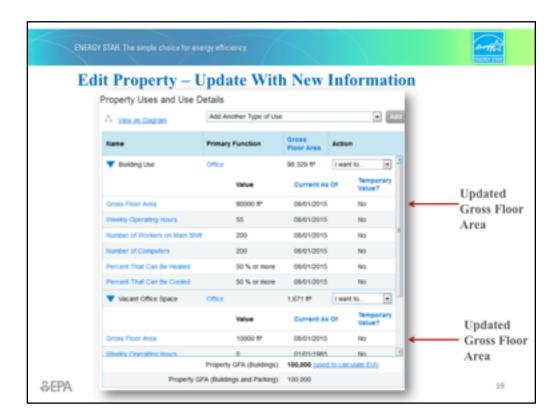
- Next, select the "Updated Value" box to update the gross floor area to reflect the amount of vacant space. For "Current as Of" note the date the space became vacant.
- No change is required to the value or date for weekly operating hours and number of workers and computers if these remain"0", which is likely for vacant space.
- Then select, "Save Update."



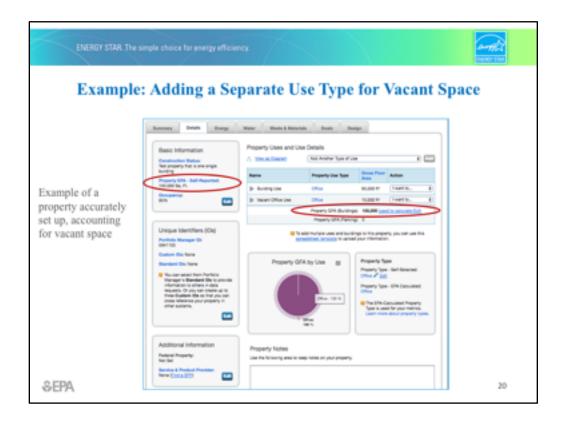
- Once the update is saved, you will notice that Portfolio Manager displays a gross floor area that is different from the number you entered. This is not an error. The difference occurs because the gross floor area is a time weighted average of the varying sq. ft. over the selected period. For more information: https://portfoliomanager.zendesk.com/hc/en-us/articles/211696587-What-does-timeweighted-mean-
- You will also notice that your property now appears to have more floor area than you originally indicated when setting up the property. This is indicated by the red exclamation point alerts next to "Property GFA (Buildings)" and "Property GFA Self-Reported". To address this error, a second update must be made to the main property use type to account for the loss of occupied space. In essence, you are "moving" square footage from one Property Use to another, so you need to reflect this in both property uses.



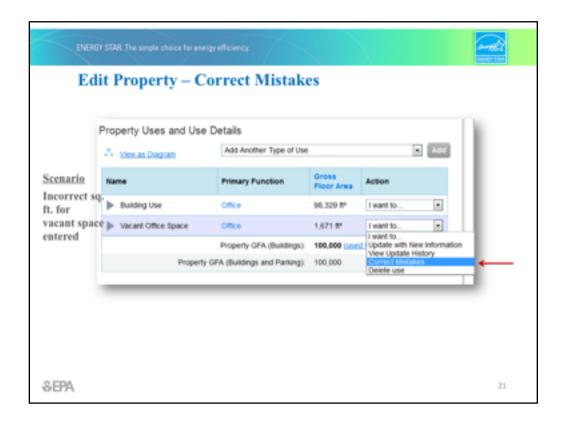
- To make the second needed update to the main property use, select "Update with New Information" from the drop down box for the main property use type.
- On this screen, select the "Updated Value" box to update the gross floor area to reflect the accurate sq. ft. of occupied space. In this case, the gross floor for occupied space is 90,000, since 10,000 sq. ft. is now vacant. For "Current as Of" note the date that the value changed, which should be the same as the date that vacant space came open.
- The reduction in occupied space likely means the reduction of weekly operating hours, number of workers, and number of computers. Update these values and the "Current As Of" date accordingly.
- Then select, "Save Update."



• On the property details page, use the arrow to expand the spaces and notice that your updates have been accepted and the "current as of dates" are reflected in your Property Use Details.



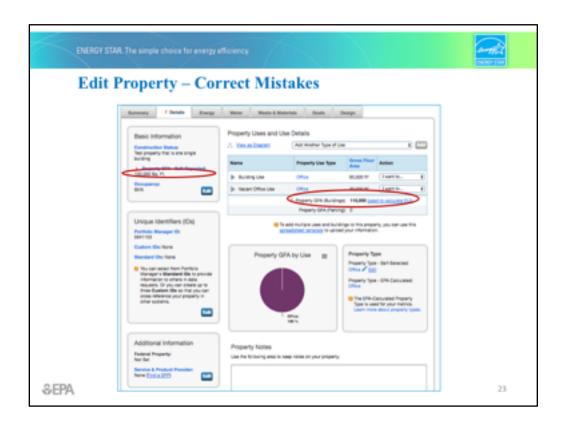
- Once you have edited your Property Uses to reflect the appropriate Gross Floor Area and other use details, you will have an accurate record of occupied and vacant space. Note that the red exclamation point alerts are gone and that "Property GFA (Buildings)" and "Property GFA – Self-Reported" now match.
- As time goes on and more floor space gets leased, you can go through this process again to update vacant and occupied space accordingly.
- If your property becomes fully rented with no vacancies, keep the Vacant Property Use, just change the GFA to 0.



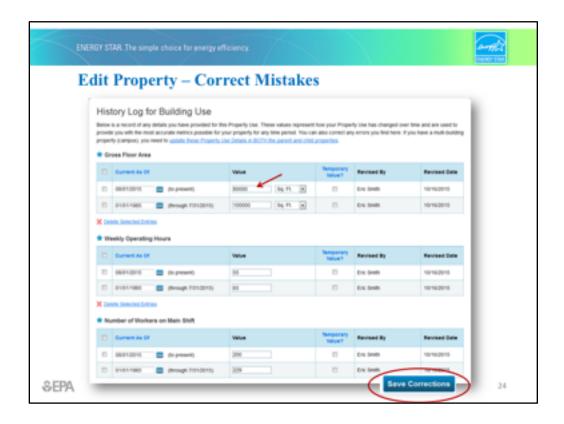
- Now, let's say that we need to correct data that was entered in error. For example, let's say that instead of just 10,000 sq. ft., we actually have 20,000 sq. ft. of vacant space.
- To fix the error, select "Correct Mistakes" next to Vacant Office Space.



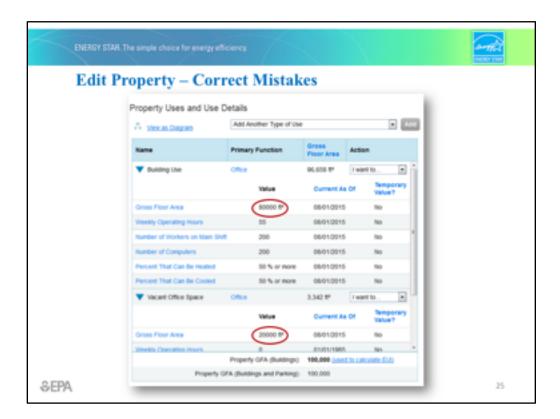
- Next, correct the "Value" for the gross floor area, in this case from 10,000 to 20,000 sq. ft. The "Current as Of" date will not change, nor will any of the other property use details.
- Then select, "Save Corrections." The old value will not be saved and the new, correct value will be in effect.



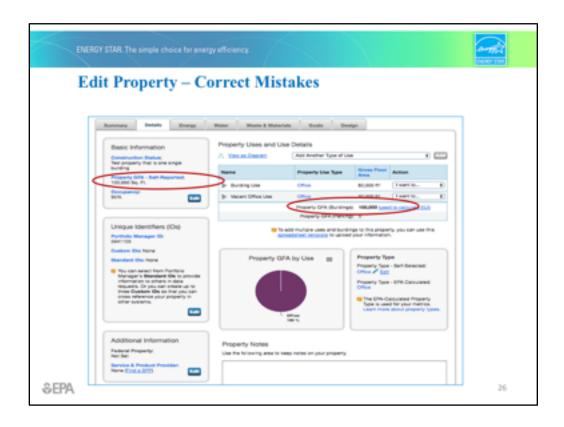
You will notice again that your property now appears to have more floor area than you originally indicated when setting up the property. This is indicated by the red exclamation point alerts next to "Property GFA (Buildings)" and "Property GFA – Self-Reported". To address this error, a second correction must also be made to the main property use type.



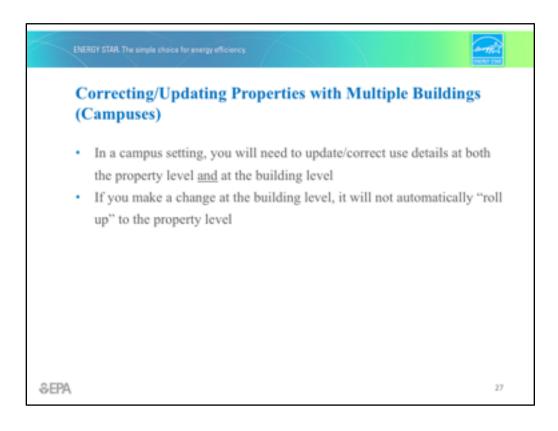
- To make the second correction to the main property use, select "Correct Mistakes" from the drop down box for the main property use type.
- On this screen, correct the "Value" for the gross floor area for the most recent value, in this case from 90,000 to 80,000 sq. ft. of occupied space because 20,000 sq. ft. is vacant. The "Current as Of" date will not change, though you may need to correct the other use details if they were also entered in error.
- Then select, "Save Corrections." The old value will not be saved and the new, correct value will be in effect.



• On the property details page, use the arrow to expand the space use types and notice that the corrections have replaced the old values.



- Once you have corrected your Property Uses to reflect the correct Gross Floor Area and other use details, note that the red exclamation point alerts are gone and that "Property GFA (Buildings)" and "Property GFA – Self-Reported" now match.
- As you update and correct information in Portfolio Manager, make sure that you address
 alerts noting discrepancies between the "Property GFA (Buildings)" and "Property GFA –
 Self-Reported."
- And remember, if you need to make edits to your property use details like we've done in these examples, you can either "Correct Mistakes" or "Update with New Information." The key difference is that you will use "Correct Mistakes" to change a value that was entered in error. No historical record of the old value will be kept or factored into your metrics. You would use "Update with New Information" to track a value that has changed over time. When updating a value, you indicate the date as of which the new value took effect, so that the tool can account for this.

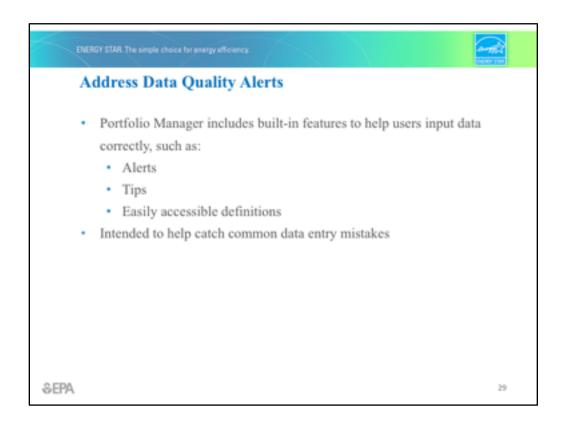


- One thing to note if you are benchmarking a campus is that you will need to make any updates or corrections at both the individual building level, as well as at the property level. If you make a change to data at the building level, it will not automatically roll up to the property level.
- So if you have a property in a campus layout, be sure to check the details at the property level each time you make a building-level edit to Use Details.
- For more information, please see the related FAQ at
 http://portfoliomanager.supportportal.com/ics/support/KBAnswer.asp?questionID=344

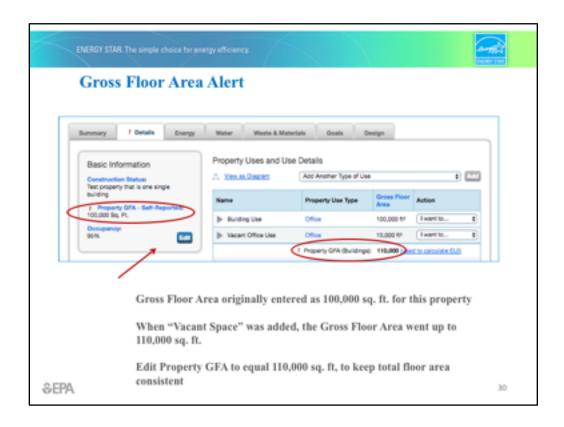
 88. Also, see the "How to Benchmark a Campus" guide, available at
 http://www.energystar.gov/buildings/tools-and-resources/how-benchmark-campus.



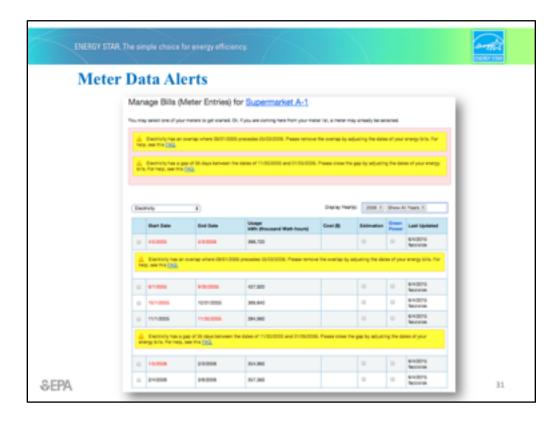
Now we will take a look at some of the "alert" functionalities in the tool.



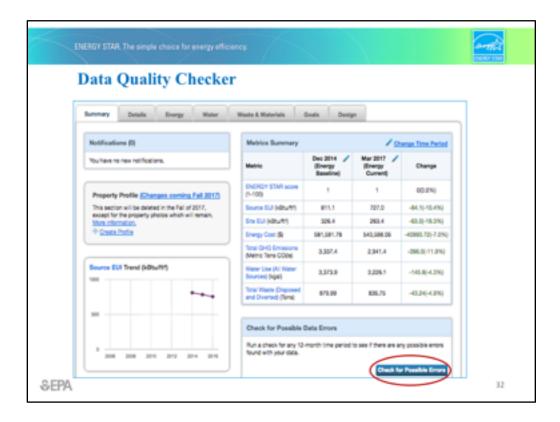
• You have likely noticed that Portfolio Manager provides guidance in the form of alerts, tips and easily accessible definitions that are intended to prevent common data entry mistakes.



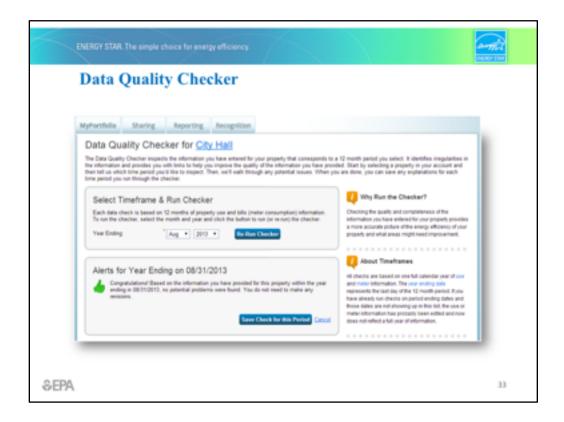
- For example, if the Gross Floor Area that you entered for the property when setting it up initially is different than the sum of the Gross Floor Area of the Property Uses, then an exclamation point will indicate the Gross Floor Area Alert in Basic Information and in Property Uses and Use Details.
- You can continue to work with your property without immediately addressing this
 discrepancy however, if you go to apply for the ENERGY STAR label and there is still an
 inconsistency in your Gross Floor Area, you will need to fix this.



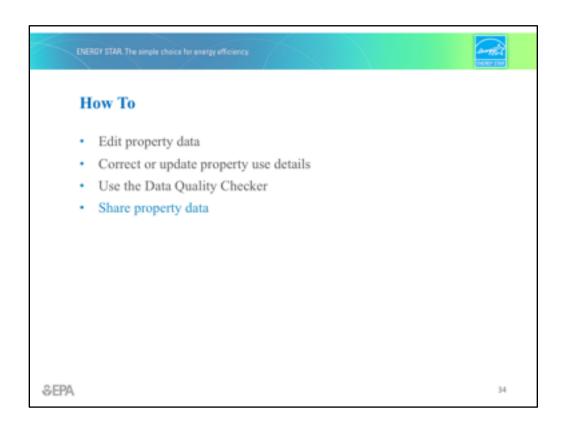
- Similarly, Portfolio Manager will identify issues with your meter data. Specifically, any gaps or overlaps in your meter entries will be called out.
- Alerts will be shown at the top of the page as well as below the row that needs to be edited.
- To address these alerts, simply click on the table to make the changes or at the bottom of the page click "add an entry" to enter a new line of information.
- You will be able to move on from this page even if the data alerts have not been
 addressed. If gaps and overlaps exist in a meter, you will see a yellow alert next to the
 meter name on the Meters tab. This is intended to call out to users which meters have
 errors. This saves you the trouble of going in to each meter and searching for data
 issues.



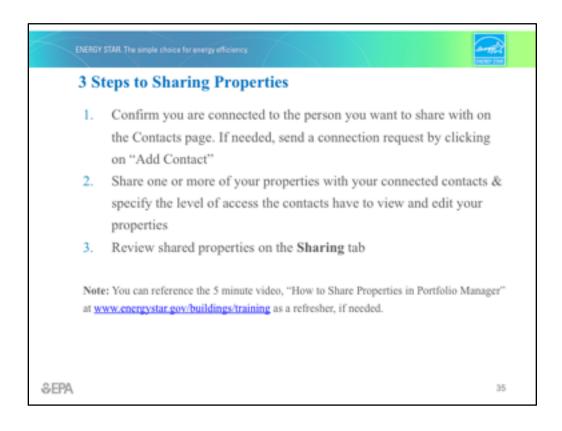
- Another feature to identify erroneous or anomalous data is the Data Quality Checker. This tool reviews all entries for an individual property to identify problems with meter data, property use details, and property information.
- From the Summary tab of any property record, select "Check for Possible Errors" to get started.



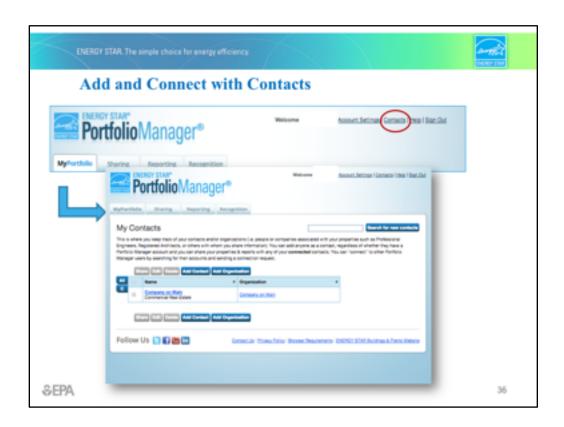
- The Data Quality Checker checks a "Metric Year" which is a 12-month time period because all metrics are based on 12 months of data.
- Select the Year Ending date using the drop down options and click Run Checker.
- The checker will scan your property and immediately return the results. Expand each
 alert using the dropdown arrow to see a summary of the issue and a description of how
 to fix it:
 - A green thumbs up means there are no issues.
 - An exclamation point and yellow yield sign indicates atypical data, e.g., unusually high or low values. If you receive an alert like this, but you know the information is correct, you can ignore the alert.
 - An exclamation point and red stop sign indicates that data is incomplete or missing. This type of alert will likely prevent metrics from calculating and the issue should be resolved as soon as possible.
- The checker runs the same checks that are used during the ENERGY STAR Certification process so it's a good idea to use the Data Quality Checker if you're interested in certification and, generally to have more confidence in your building metrics.



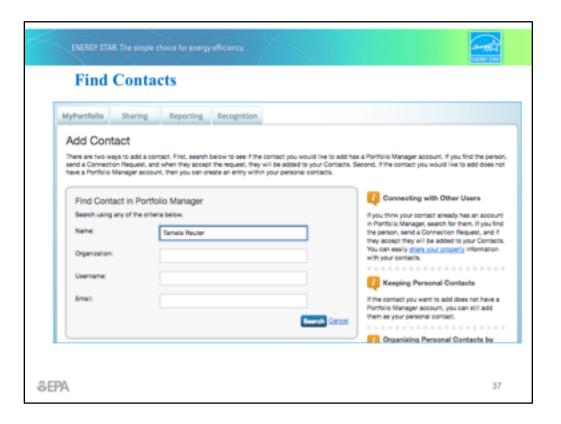
That complete are third objective. Now, we will learn how to connect and share data with other Portfolio Manager users.



- Sharing allows you to share a property record with another Portfolio Manager for viewing, reporting, and in some cases editing.
- Sharing is broken up into 3 steps: (1) connect with a Portfolio Manager user; (2) share one or more properties with one or more connected contacts, at a specified level of access; and (3) easily check/review your sharing settings for every building in your portfolio and make changes/edits as necessary.



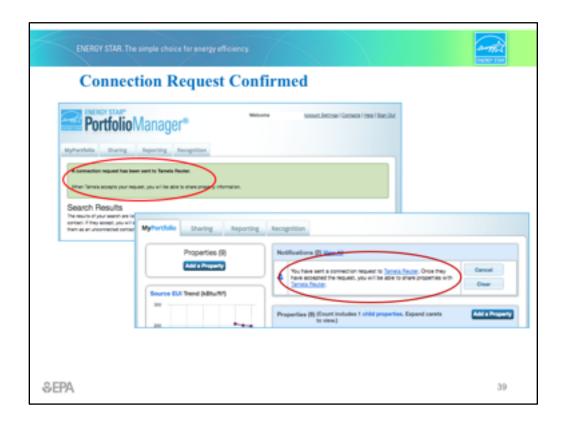
- The first step is to "connect" with the PM user with whom you wish to share. To do this, go to the "contacts" link in top right corner of any Portfolio Manager page.
- The "My Contacts" page will display your current contact list. The list includes two types of contacts: contacts you have manually added to your contacts list and contacts with whom you are connected via Portfolio Manager. "Connected" contacts are indicated by a chain link icon.
- Select "Add a Contact" to search for users to connect with.



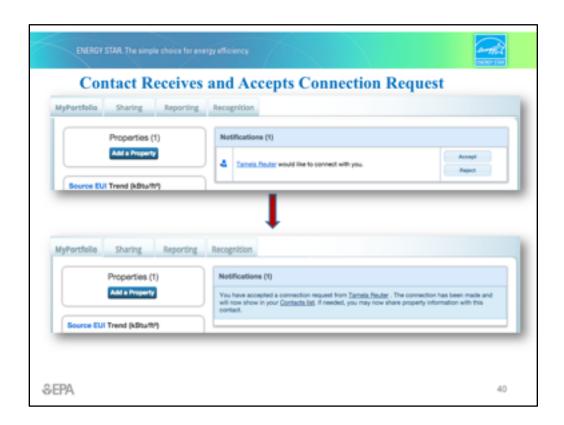
- From this page, you will be able to search for other Portfolio Manager users (i.e., established PM accounts) by name, organization, username or email.
- If you are trying to connect to a user and they are not coming up in the search, please ask them to look at the Preferences tab under Account Settings to make sure that they are "searchable." The default setting for all existing Portfolio Manager accounts is to be "searchable." However, this can be changed under Account Settings in the top right hand corner of any Portfolio Manager page.
- On the bottom of the Add Contact page, you can also simply add a contact to your address book by typing in their name and contact information, however, this is not the same thing as making a connection request. One example of a situation where you may want to add a contact without actually connecting with them is if you're working with a licensed professional to obtain ENERGY STAR Certification. Adding them to your address book will allow you to select the provider when completing the online application.



- After searching for a user to make a connection in order to share a property record, from the "Search Results" page, select the user with whom you wish to connect.
- The search results will display the users' name above their title and organization. It does not display their username.
- To send a connection request, click the "connect" button next to your contact's name.



- Once the connection request has been sent, you will receive a confirmation notice.
- But, you can't share a property until the contact accepts your request.



Here is what your contact will see upon receiving a sharing request. They will have the
opportunity to accept or reject your request and you will receive a confirmation of the
action that they took.



• Once your contact has accepted your connection request, you will receive a confirmation.



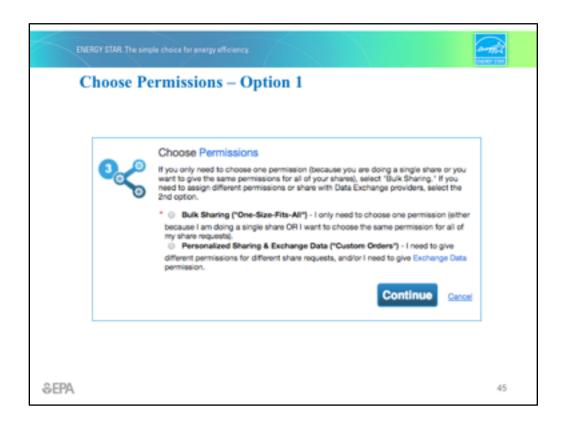
- Once you are connected with your contact, click on the "Sharing" tab and start by clicking "Share (or Edit Access to) a Property."
- Or, if you are interested exchanging data via web services with a third party service provider or utility, select "Set Up Web Services/Data Exchange".



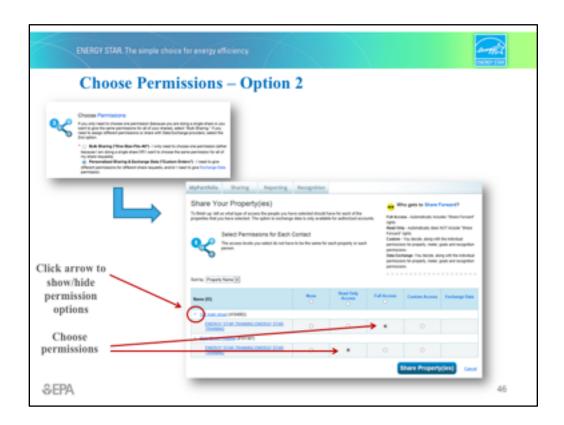
- Next, you will be taken to the "Share Your Properties" page.
- From here, you will choose from a drop down menu which properties you wish to share.
 You have the option to share one property, to select multiple properties, or to share all properties.
- On this page, you will also be asked to select one or more connected contacts with whom you would like to share. You can select multiple names at once by holding the "Control" key as you click names.



- If you select multiple properties, a pop up window will allow you to filter and select the specific properties you want to share.
- You can filter by region or building type, or use the check boxes to select one property at a time. You can also "Filter By Group," if you have created one or more groups and assigned properties to these groups
- When you are done, click "Apply Selection."



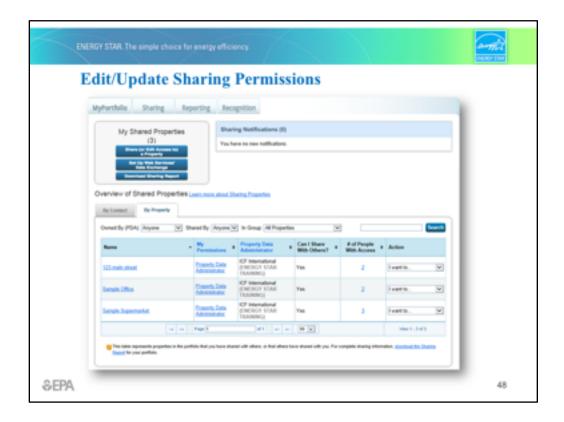
- After selecting which properties and contacts, the next step is to assign permissions, in other words, to assign users a particular level of access to the property record.
- You can choose "Bulk Sharing" if you have a single share OR if you're giving the same permissions for all of your shares.
- With this option, you will choose one of 3 access levels (read-only, full, or custom).
- Read only access means that your contact can look at your property data and include the property in their reports, but they will not be able to edit or update any of the Property Use Details or meter consumption details.
- Full access allows your contact to make any edits to property.
- Custom access allows you to select different levels of access for different aspects of your property record. For example, you can specify full access for some meters but not others; or can provide full access to meters, but read-only access to Goals.



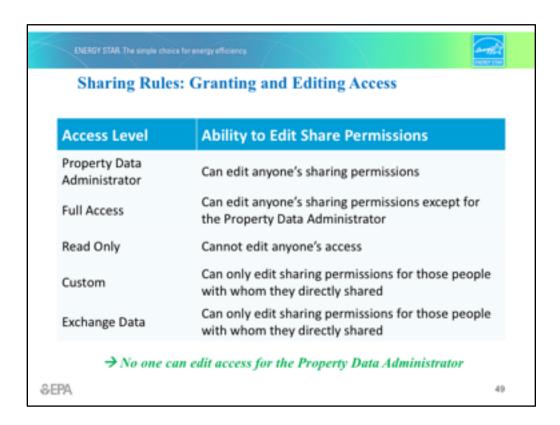
- Choose "Personalized Sharing" if you need to assign different access rights across different properties/contacts. This option allows you to assign specific access rights across each property record and user.
- "None" is offered as an option you have selected multiple contacts to share multiple properties, but certain contacts don't need access to certain properties.
- "Custom Access" allows you to grant different permissions for different parts of each property record, e.g., the property information, meter information, goals, improvements, and recognition. It's also here where you will find the option to allow the shared user to "share forward." We'll talk more about this is just a bit.



- Once you've completed your sharing request, sharing notifications appear in both accounts (sharer and recipient).
- Sharer will see a confirmation that request was sent.
- · Recipient has option to accept or reject.
- NOTE: if you share a property and then "clear" the notification telling you that you have shared, it will be removed from your Notifications box. You can later cancel this share (or remove access if they have already accepted), from that property's Summary tab, in the "Sharing This Property" box.



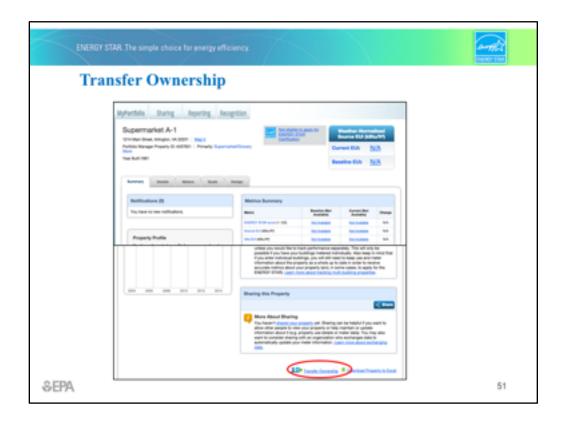
- Once your contact has accepted your sharing request, they will show up in your list of shared properties on the "Sharing" tab.
- You can sort the Sharing Table by contact or by property. Either way, you will be able to view information regarding the sharing status of every property, including who has access to the property, what specific permissions they have.
- Using the "Action" drop-down menu, you will be able to view and (in some cases) edit the sharing settings that have been assigned to each contact for each building. Your ability to edit another user's permission levels will depend on the access rights that you have. [See next slide]
- •Everyone who has access can see the names of *everyone else* with access, regardless of your specific permissions



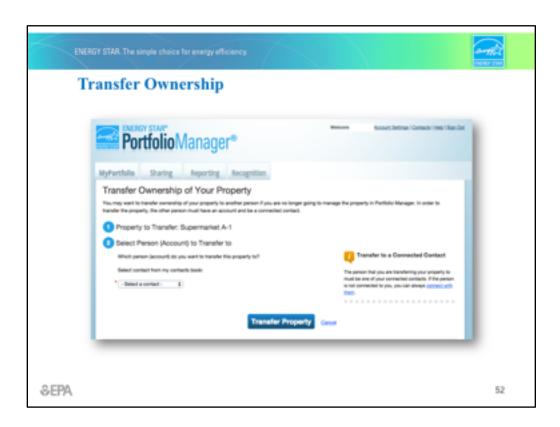
• This information is provided within Portfolio Manager, but is summarized here for your convenience.



• You can "re-share" or "share forward" a property that has been shared with you — as long as you have the right permission. This slide summarizes the "share forward" capability associated with each sharing access level. When sharing a property with a recipient, consider whether they may need to share the property forward, and take this into account when assigning access levels.



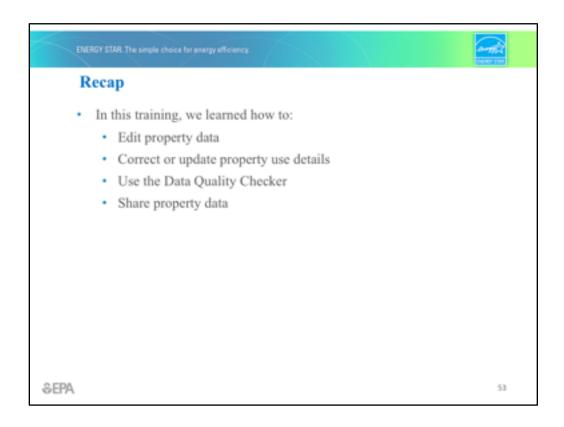
- The Transfer Ownership link, located at the bottom of the Property Summary tab, allows
 users to transfer individual properties between accounts. This is not the same as sharing
 a property with Full Access. Transferring ownership removes a building from one
 account and places it in another user's complete control. You can only transfer
 ownership of a building if you are its Property Data Administrator essentially the
 "owner" of the building in Portfolio Manager.
- There is also a link to transfer ownership in the Manage Portfolio menu in the bottom left corner of the MyPortfolio tab.



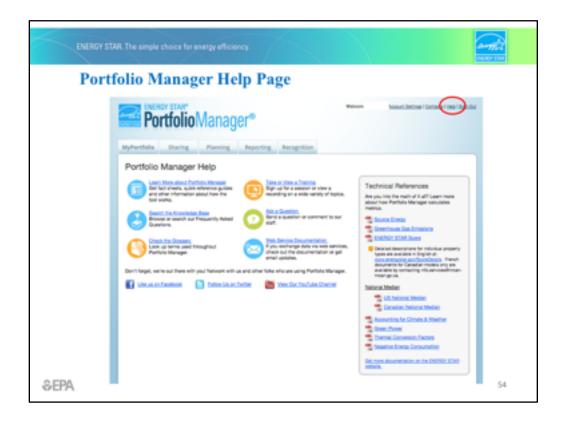
- Note: when you transfer ownership of a property all of the "shares" for that property will stay intact.
- One last note about sharing and transferring: If you need access to an existing building record in Portfolio Manager, but the property data administrator for that record is unknown are cannot be reached, EPA can transfer the properties on behalf of the former owner IF we can verify in the database that both accounts are registered under the same company. If not, the property record may need to be recreated. Contact the help desk using the link in the top right hand corner to inquire as to your options. These FAQs provide more information:

https://portfoliomanager.zendesk.com/hc/en-us/articles/211028858-Someone-left-my-company-how-can-l-get-access-to-their-buildings-in-Portfolio-Manager-

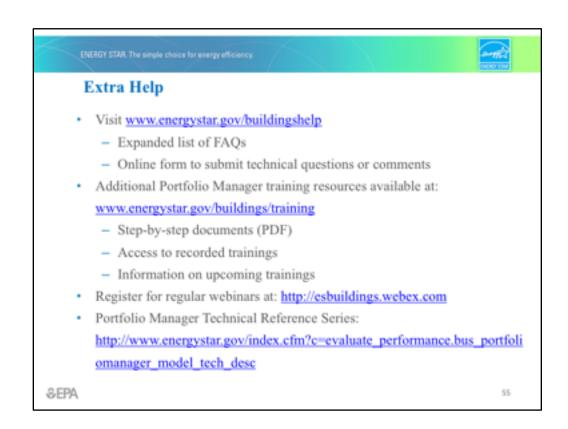
https://portfoliomanager.zendesk.com/hc/en-us/articles/211698277-How-do-I-get-access-to-a-property-my-organization-has-recently-acquired-



• In conclusion, we have touched on the following topics today: [read slide]



- At any time, you can click on "Help" in the upper right-hand corner of any Portfolio Manager screen to be taken to the help page. From here you can access:
 - "How To" guides and other printed resources
 - FAQs
 - The Portfolio Manager Glossary
 - Registration for live trainings/webinars
 - Recorded trainings
 - Form to submit questions & technical issues
 - Portfolio Manager technical references/documentation
 - Web services documentation



You can also access many of these resources from the links provided above. You don't have to be logged in to Portfolio Manager to access this information.

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Thank you for attending!

Questions?

If after this webinar you have any questions on Portfolio Manager, contact us at:

www.energystar.gov/BuildingsHelp

&EPA

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