



# How to Track Waste and Materials in Portfolio Manager<sup>®</sup>



# Agenda

- Waste Tracking in Portfolio Manager
  - Overview and Terminology
  - Demonstration
- Q&A Session



## Management Tool

- Assess whole building energy and water consumption and waste & materials management
- Track changes in energy, water, waste & materials, greenhouse gas emissions, and cost over time
- Track green power purchasing
- Share/report data with others
- Create custom reports
- Apply for ENERGY STAR certification

## Metrics Calculator

- More than 300 metrics available
- Energy consumption (source, site, weather normalized)
- Water consumption (indoor & outdoor)
- Waste & materials management
- Greenhouse gas emissions
- ENERGY STAR 1-to-100 score for energy efficiency (available for many building types)

Accessible in a free, online secure platform:

<https://www.energystar.gov/buildings/benchmark>



# Benchmarking with Portfolio Manager is the Industry Standard



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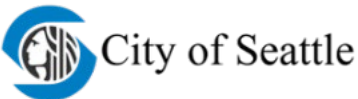
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STAPLES



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CBRE

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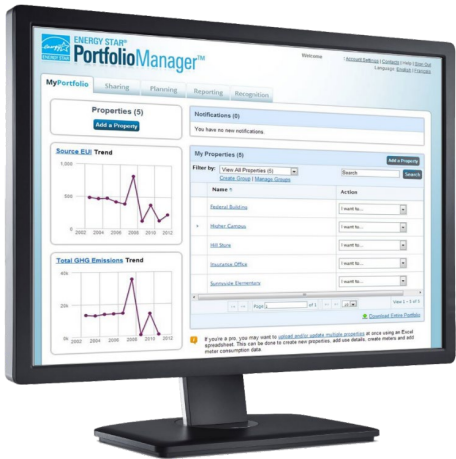


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verizon

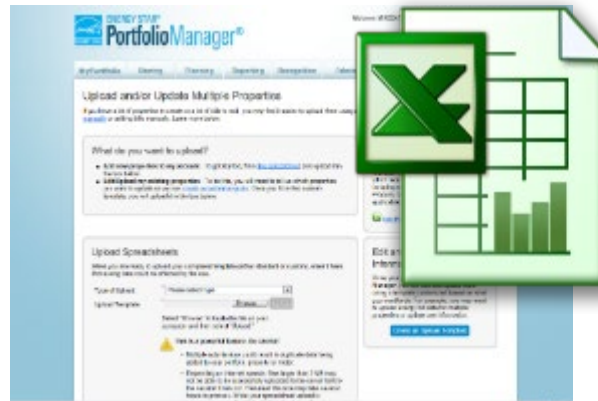


# Choose the best data management method

## Manual Entry



## Spreadsheet Upload



## Web Services



# Waste Tracking: Basic Terminology

- **Waste Material Type** – The 29 different categories of materials that you can track (e.g. trash, mixed recyclables, batteries, food scraps, etc.)
- **Waste Management Method** – One of 4 options for how you manage your waste and materials
  - Donated/Reused
  - Recycled
  - Composted
  - Disposed
- **Disposed Waste Destination** – One of 4 options for where your disposed waste (e.g. trash) goes:
  - Landfill
  - Incineration
  - Waste to Energy (*refers to incineration for energy recovery, not to landfill with gas recovery*)
  - Other/Unknown
- **Waste Diversion** – the sum of the Composted, Recycled, and Donated/Reused Materials (i.e. everything that is not disposed)

# Materials for Tracking

Waste/Materials	Disposed	Donated/ Reused	Recycled	Composted
Appliances	X	X	X	
Batteries	X		X	
Beverage Containers (aluminum, glass, plastic)	X		X	
Building Materials - Carpet/Carpet Padding	X	X	X	
Building Materials - Concrete	X	X	X	
Building Materials - Mixed/Other	X	X	X	
Building Materials - Steel	X	X	X	
Building Materials - Wood	X	X	X	
Cardboard/Corrugated Containers	X	X	X	X
Compostable - Mixed/Other	X			X
Electronics	X	X	X	
Fats/Oils/Grease	X		X	
Food/Food Scraps	X	X		X
Furniture	X	X		
Glass	X	X	X	
Grass/Yard Trimmings	X			X
Lamps/Light Bulbs	X		X	
Mixed Recyclables	X		X	
Office Supplies	X	X		
Pallets	X	X	X	
Paper - Books	X	X	X	
Paper - Copy Paper	X		X	X
Paper - Mixed	X		X	
Plastics - Mixed	X		X	
Plastics - Wrap/Film	X		X	
Regulated Medical Waste	X			
Textiles/Clothing	X	X	X	
Trash	X			
Other	X	X	X	X

- 29 Material Types
- 4 Methods of Management

# Methods of Data Entry

- **Regularly** – Meters for materials that are picked up on an ongoing basis (e.g. weekly pickup of trash and recycling). There are two basic paths:
  - Measured – Requires a weight or volume for each entry
    - Can be marked as “estimated” if it is a weight that the you/your customer estimate on your own
  - Container Size – Based on the size of the container
    - You/your customer enters a container size, and specifies the number of times it was emptied and the percent full
- **Intermittently** – Meters for infrequent or 1-time events (e.g. annual donation of electronics, or construction materials).



# Let's take a look!

- Setting Up Waste Tracking in Portfolio Manager
  - Adding “meters” to properties
  - Adding data to meters
- Assessing Waste Performance
  - Waste tab
  - Summary tab
  - Performance Highlights Report
  - Waste Report
  - Custom Report

# Navigate Portfolio Manager

4 portfolio level tabs



7 property level tabs



# Navigate Portfolio Manager

Portfolio level view



The screenshot displays the Energy Star Portfolio Manager interface. At the top, the logo and navigation tabs (MyPortfolio, Sharing, Reporting, Recognition, Admin, Processing) are visible. The main content area is divided into two sections. On the left, a 'Properties (410)' box contains an 'Add a Property' button. Below it is a 'Source EUI Trend (kBtu/ft²)' line graph showing data from 2006 to 2016. On the right, a 'Dashboard' section includes a search bar, a 'Refresh Metrics' button, and a table of building metrics.

Name	Energy Current Date	ENERGY STAR Score	Site EUI (kBtu/ft²)	Source EUI (kBtu/ft²)
<a href="#">EPA Sample K-12 School</a> 5711767	12/31/2016	79	53.1	108.9
<a href="#">EPA Sample Library</a> 5711765	12/31/2016	NA	100.1	234.6
<a href="#">EPA Sample Mixed Use</a> 5711741	12/31/2016	51	98.0	251.7



# Navigate Portfolio Manager

Property level view



MyPortfolio | Sharing | Reporting | Recognition

## Sample K-12 School (US)

321 Education Way, Phoenix, AZ 85005 | [Map It](#)  
Portfolio Manager Property ID: 6664951  
Year Built: 1950  
[Edit](#)

[Change Metric](#)

**ENERGY STAR Score (1-100)**  
**Current Score: 85**  
**Baseline Score: 87**

Summary | Details | Energy | Water | Waste & Materials | Goals | Design

### Source EUI Trend (kBtu/ft<sup>2</sup>)

[Change Metric](#)

(Chart current as of 05/14/2019 04:03 PM EDT) [Refresh Chart](#)

### Metrics Summary

[Change Metrics](#)  
[Change Time Periods](#)

Metric	Dec 2016 (Energy Baseline)	Aug 2018 (Energy Current)	Change
ENERGY STAR Score (1-100)	87	85	-2.00 (-2.30%)
Source EUI (kBtu/ft <sup>2</sup> )	100.3	104.4	4.10 (4.10%)
Site EUI (kBtu/ft <sup>2</sup> )	53.1	55.1	2.00 (3.80%)
Energy Cost (\$)	59,020.59	61,513.62	2493.03 (4.20%)
Total GHG Emissions Intensity (kgCO <sub>2</sub> e/ft <sup>2</sup> )	4.9	5.1	0.20 (4.10%)
Water Use (All Water Sources) (kgal)	609.7	<a href="#">Not Available</a>	N/A
Total Waste (Disposed and Diverted) (Tons)	68.86	<a href="#">Not Available</a>	N/A

### Check for Possible Data Errors

Run a check for any 12-month time period to see if there are any possible errors found with your data.

[Check for Possible Errors](#)

# Your Organization May Already be Benchmarking

- Avoid duplication of effort when setting up records!

Welcome **aschultettraining:** Account | Notifications | Settings | ENERGY STAR Notifications | **Contacts** | Help | Sign Out

MyPortfolio | Sharing | Reporting | Recognition

### Add Contact

There are two ways to add a contact. First, search below to see if the contact you would like to add has a Portfolio Manager account. If you find the person, send a Connection Request, and when they accept the request, they will be added to your Contacts. Second, if the contact you would like to add does not have a Portfolio Manager account, then you can create an entry within your personal contacts.

**Find Contact in Portfolio Manager**  
Search using any of the criteria below.

Name:

Organization:

Username:

Email:

**Search** [Cancel](#)

**Connecting with Other Users**  
If you think your contact already has an account in Portfolio Manager, search for them. If you find the person, send a Connection Request, and if they accept they will be added to your Contacts. You can easily [share your property](#) information with your contacts.

**Keeping Personal Contacts**  
If the contact you want to add does not have a Portfolio Manager account, you can still add them as your personal contact.

**Organizing Personal Contacts by Organization**

# Step 1: Select Material & Management Method

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### Get Started Setting Up Waste/Materials Meters for Sample Supermarket

Most likely you don't have physical "meters" measuring your waste or materials, but you can set up a "meter" to easily track this information in Portfolio Manager. You should create one meter for every type of waste or material you are tracking (e.g. disposed trash, recycled cardboard, etc.) [Learn more about waste and material tracking.](#)

<b>About Your First Waste/Material</b>			
What waste/material are you tracking?	* <input type="text" value="Trash"/>	What are you doing with it?	* <input type="text" value="Disposing it"/>
			<a href="#">Remove</a>
<b>About Your Second Waste/Material</b>			
What waste/material are you tracking?	* <input type="text" value="Mixed Recyclables"/>	What are you doing with it?	* <input type="text" value="Recycling it"/>
			<a href="#">Remove</a>
<b>About Your Third Waste/Material</b>			
What waste/material are you tracking?	* <input type="text" value="Compostable - Mixed/Other"/>	What are you doing with it?	* <input type="text" value="Composting it"/>
			<a href="#">Remove</a>
<b>About Your Fourth Waste/Material</b>			
What waste/material are you tracking?	* <input type="text" value="Furniture"/>	What are you doing with it?	* <input type="text" value="Donating/Reusing it"/>
			<a href="#">Remove</a>

[+ Add another Type of Waste/Material](#)

[Continue](#) [Cancel](#)

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- Select the material you're managing
  - Trash, Cardboard, Furniture, etc.
- Select the Management method
  - Disposed, Recycled, etc.
- Add up to 10 different meters at once

# Step 2: Indicate Meter Type

The screenshot shows the 'About Your Waste/Material Meters for AES - Library (Test)' form in the Energy Star Portfolio Manager. The form is titled 'About Your Waste/Material Meters for AES - Library (Test)' and includes a sub-header 'Tell us a little more about your waste and/or materials and how you plan to track them so we can set up your waste meters for you.' The form is divided into two main sections: 'Disposed- Trash' and 'Intermittently or one-time only'. The 'Disposed- Trash' section is currently active and contains the following fields: 'How often is this waste/material collected?' with radio buttons for 'Regularly (for example monthly trash or recycling)' (selected) and 'Intermittently or one-time only'; 'How will you be tracking it?' with radio buttons for 'I know the weight or volume of the waste/material.' (selected) and 'I only know the size of the bin/dumpster.'; 'Units:' with a dropdown menu set to 'Please Select'; and 'When did you first start tracking it?' with a date input field and a calendar icon. The 'Intermittently or one-time only' section is currently inactive. At the bottom of the form, there are 'Back', 'Create Meter(s)', and 'Cancel' buttons. The footer of the page includes social media icons for Twitter, Facebook, YouTube, and LinkedIn, along with links for 'Contact Us', 'Privacy Policy', 'Browser Requirements', and 'ENERGY STAR Buildings & Plants Website'.

- First, select Regular or Intermittent
- Page will dynamically change based on your choices
- For Regular, chose whether you will enter with a quantity, or just tell us the size of your dumpster

# Meter Type Options

	Regular Meter	Intermittent Meter
<b>When to use</b>	Dumpsters picked up regularly (e.g. 2x per week)	Infrequent or 1 time events (e.g. Furniture donation)
<b>What the system will expect</b>	Data will be present every month (no gaps/overlaps)	No minimum data requirements
<b>How you will enter data</b>	Two Options: <b>A. Regular.</b> Enter a quantity each month (e.g. 100 lbs, 3yd <sup>3</sup> ) <b>B. Regular Container.</b> Tell us the size of your dumpster and how often it was emptied	One Option: <b>C. Intermittent.</b> Enter a quantity (e.g. 100 lbs, 3yd <sup>3</sup> )
<b>Information required at meter setup</b>	<b>A. Regular</b> <ol style="list-style-type: none"> <li>The unit you will use to enter data</li> <li>The date for your first bill</li> </ol> <b>B. Container Size</b> <ol style="list-style-type: none"> <li>The size of your dumpster</li> <li>The date for your first bill</li> </ol>	<b>C. Intermittent</b> <ol style="list-style-type: none"> <li>The unit you will use to enter data (e.g. lbs, kg)</li> </ol>



# Step 3: Enter Monthly Data

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Your waste and/or material meters have been created! If you have your meter entries ready, you can enter them below. Or, you can continue with setting up your meters and enter your meter entries later.

### Waste/Material Meter Entries for AES - Library (Test)

Now that you've provided basic information about how you will be tracking your waste and/or materials, you can start tracking by entering your amounts below.

**1 Waste/Material Meter(s) - Collected regularly (data should have no gaps)**

▼ Disposed- Trash [Edit](#)

	Start Date	End Date	Quantity (Pounds)	Cost (\$)	Disposal Destination	Estimated Value
<input type="checkbox"/>	1/1/2015	1/31/2015	100	50.00	100% Landfill <a href="#">Edit</a>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="text" value="01/31/2015"/>	<input type="text" value="03/03/2015"/>	<input type="text"/>	<input type="text"/>	100% Landfill <a href="#">Edit</a>	<input type="checkbox"/>

[Delete Selected Entries](#)  
[Add Another Entry](#)  
[Learn how to copy/paste](#)

Upload data in bulk for this meter:

You can copy/paste into the table above ([instructions in this FAQ](#)), or upload an Excel spreadsheet using our simple [spreadsheet template](#).

No file selected.

[Cancel](#)

- Tables to enter records for each month
  - Similar to entering energy and water
  - Exact fields will depend on the meter type (regular, intermittent)
- You do not need to complete this step to set up a meter
  - Come back and fill in later

# Data Required by Meter Types

Regular	Regular Container	Intermittent
Most like metered energy	<p>Instead of a quantity, enter number of pickups &amp; average percent full</p> <p>There is no “estimated” flag</p>	Similar to bulk energy, with one date rather than a range
<ul style="list-style-type: none"> <li>• Start Date</li> <li>• End Date</li> <li>• Quantity</li> <li>• Cost</li> <li>• Disposal Destination (if applicable)</li> <li>• Estimated (Y/N)</li> </ul>	<ul style="list-style-type: none"> <li>• Start Date</li> <li>• End Date</li> <li>• Number of Times Picked Up</li> <li>• Average Percent Full</li> <li>• Cost</li> <li>• Disposal Destination (if applicable)</li> </ul>	<ul style="list-style-type: none"> <li>• Start Date</li> <li>• Quantity</li> <li>• Cost</li> <li>• Disposal Destination (if applicable)</li> <li>• Estimated (Y/N)</li> </ul>

- **Note if the waste is disposed, additional data is required**
  - % for each option: Landfill, Waste-to-Energy, Incineration, and unknown
  - % values must add to 100; can omit options that are 0%

# Volume Conversions

- **Volume conversions**
  - Used to convert volume into weight
  - Important because the main unit for metrics and reporting is tons
- **Materials without conversions**
  - Cannot use “container size” option
  - These materials are required to provide a weight
  - If you need to estimate the weight, there is a way to mark each entry as estimated

Materials without Volume Conversions
Appliances
Batteries
Electronics
Furniture
Lamps/Light Bulbs
Office Supplies
Regulated Medical Waste
Other

# Step 4: Associate Your Waste Meters

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Your meter entries have been added to your meters!

### Select Waste and/or Materials Meters to Include in Metrics

Tell us which meters to include when calculating the Waste metrics for [AES - Library \(Test\)](#) so that we can provide you with the most accurate metrics possible.

**Summary**

**3** Meters representing the waste and materials for [AES - Library \(Test\)](#) (a single building).

#### Waste and Materials Meters

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

<input checked="" type="checkbox"/>	Name Meter ID	Type
<input checked="" type="checkbox"/>	<a href="#">Disposed- Trash</a> 21773191	Disposed Trash
<input checked="" type="checkbox"/>	<a href="#">Composted- Compostable - Mixed/Other</a> 21773283	Composted Compostable - Mixed/Other
<input checked="" type="checkbox"/>	<a href="#">Recycled- Mixed Recyclables</a> 21773281	Recycled Mixed Recyclables

**Apply Selections** [Cancel](#)

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- Tell us which meters to add to your total
- Similar to the process for energy and water
- Usually, all of your meters will be associated

# EPA Sample K-12 School

321 Education Way, Phoenix, AZ 85005 | [Map It](#)

Portfolio Manager Property ID: 5711767

Year Built: 1950

[Edit](#)



**ENERGY STAR Score (1-100)**

**Current Score: 79**

**Baseline Score: 74**

- Summary
- Details
- Energy
- Water
- Waste & Materials**
- Goals
- Design

### Meter Summary

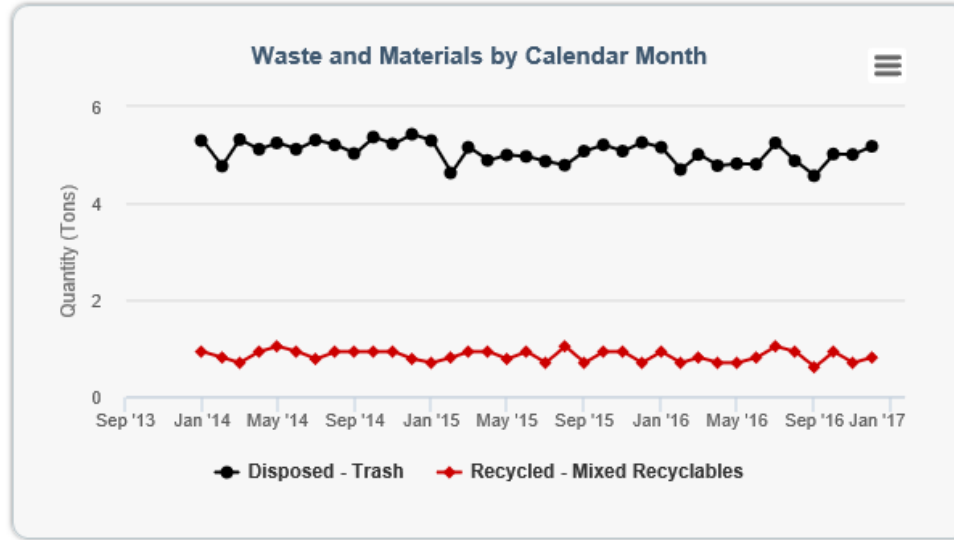
**2 Waste and Materials Meters Total**

2 - Used to Compute Metrics

[Add a meter](#)

Current Waste and Materials Date:  
Dec 31, 2016

[Update Data](#)



[Export Data by Calendar Month](#)

Meters - Used to Compute Metrics (2)

[Add A Meter](#)

[Change Meter Selections](#)

Name Meter ID	Waste Meter Type	Frequency	Most Recent Date
<a href="#">Disposed- Trash</a> 24940833	Disposed - Trash	Regularly	01/18/2017



# Waste and Material Management Metrics

- **Overall Aggregate Metrics**
  - Total Waste (Disposed and Diverted)
  - Total Diverted Materials
    - Includes: Recycled, Composted, and Donated/Reused Materials Only
    - Does not include: waste-to-energy because in this case the waste is still destroyed
  - Total for each management method (e.g. Disposed, Recycled)
  - Total for each disposal destination (e.g. Landfill, Incineration, Waste-To-Energy)
- **Detailed Metrics each type of waste (e.g. Recycled – Cardboard)**
  - Total Cost and Tons
  - Estimated Data Flag
- **All metrics can be pulled in a custom report and downloaded to Excel**
  - If you want to create different aggregate metrics you can
  - Can perform your own calculations for universal waste, energy recovery, or other areas of interest relative to your sustainability goals.

→ **The waste data does not impact your ENERGY STAR score or calculated GHG Emissions**

# Helpful Resources

- Waste FAQs
  - <https://energystar-mesa.force.com/PortfolioManager/s/topic/0TOt00000008fKNGAY/getting-started-with-waste-benchmarking?tabset-ca23c=2>
- ENERGY STAR Buildings Training Page
  - <https://www.energystar.gov/buildings/training>
- Managing and Reducing Wastes: A Guide for Commercial Buildings
  - <https://www.epa.gov/smm/managing-and-reducing-wastes-guide-commercial-buildings>
- EPA's conversion factors for waste
  - <https://www.epa.gov/smm/volume-weight-conversion-factors-solid-waste>

# Recorded Webinars Available

- [Rolling Out Waste Tracking Across Your Portfolio](#)
- [Trends in tracking waste data in Portfolio Manager](#)
- [Technology Solutions to Waste Tracking](#)
- [Waste management: strategies for a successful recycling program](#)



# Thank you for attending!

## Questions?

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

[www.energystar.gov/BuildingsHelp](http://www.energystar.gov/BuildingsHelp)

