

# ENERGY STAR® PortfolioNanager®

# NCPA Training: ENERGY STAR<sup>®</sup> Portfolio Manager

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## **Overview of ENERGY STAR C&I Program**

- Rationale
  - Large potential cost-effective energy savings in commercial and industrial buildings and plants
  - Performance-driven approaches address key issues and deliver verifiable net savings
- Key ENERGY STAR Resources
  - Standardized measurement system for building and plants energy efficiency
  - Energy management approaches for executives and energy managers
  - Technical assistance guidance and training
  - Education and outreach campaign and materials
  - Large partner network
  - Recognition for energy efficiency excellence and leadership



# ENERGY STAR® PortfolioManager®

- Management Tool Helps business and organizations by offering a platform to:
  - Assess whole building energy and water consumption
  - Track changes in energy, water, greenhouse gas emissions, and cost over time
  - Track green power purchase
  - Share/report data with others
  - Create custom reports
  - Apply for ENERGY STAR certification
- Metrics Calculator Provides key performance metrics to integrate into a strategic management plan
  - Energy consumption (source, site, weather normalized)
  - Water consumption (indoor, outdoor)
  - Greenhouse gas emissions (indirect, direct, total, avoided)
  - ENERGY STAR 1-to-100 score (available for many building types)

#### → Accessible in a free, online secure platform: <u>www.energystar.gov/benchmark</u>



### **Understand Comparative Performance**

- ALL buildings can be benchmarked
- Benchmarking through Portfolio Manager enables you to:
  - Compare one building against a national sample of similar buildings
  - Compare all of your buildings of a similar type to each other
  - Set priorities and targets for the use of limited staff time and/or investment capital
  - Track performance over time and gain recognition



### Value of Benchmarking

#### **Energy Savings in Portfolio Manager**

Consistent benchmarking in buildings supports energy savings and improved performance

Source: <u>www.energystar.gov/datatrends</u>



**\$EPA** 



# Benchmarking with ENERGY STAR is the Industry Standard

- Through 2015, accessed by more than 75,000 accounts tracking more than 450,000 buildings, representing more than 40 billion square feet of commercial and institutional building space in the U.S.
  - Adopted by leading commercial real estate, retail, healthcare, and educational organizations
  - Incorporated in state and local mandatory benchmarking laws
  - Required for use in buildings owned and occupied by US Federal Agencies
  - Selected by the Canadian Government as the platform for their national energy management program for existing commercial and institutional buildings





## State and Local Energy Efficiency Programs Leveraging Portfolio Manager





## What's Driving Your Customers' Benchmarking Activities?

- Mandatory Drivers
  - AB 802
  - Other local/municipal benchmarking mandates
- Voluntary Drivers
  - Pursuing benchmarking as best practice for successful, strategic energy management
  - Seeking ENERGY STAR Certification
  - Seeking recognition from industry association (e.g., BOMA, ASHE, IFMA)

ENERGY STAR. The simple choice for energy efficiency.



- Annual report provides an at-a-glance summary of the key performance indicators for the ENERGY STAR commercial and industrial program.
  - National Portfolio Manager benchmarking and ENERGY STAR certification trends in commercial, multifamily, and institutional sectors
  - State and metro area benchmarking and ENERGY STAR certification activity.
  - As of 2014 in the State of California:
    - Nearly 50,000 CA buildings have benchmarked with Portfolio Manager, a 27% increase in number of buildings benchmarked compared to 2013.
    - Over 4,300 CA buildings have earned ENERGY STAR certification.
    - Los Angeles, San Diego, San Francisco, Sacramento, San Jose, Fresno, and the Riverside metro areas all show a strong growth in buildings benchmarked from 2013-2014, ranging from 18-35%!

#### Download the ENERGY STAR Snapshot at:

Figure 2a. Cumulative buildings benchmarked in Portfolio Manager by type



**Figure 3b**. Change in square footage of benchmarked buildings by state, 2013 to 2014 (cumulative)





www.energystar.gov/buildings/about-us/research-and-reports/energy-star-snapshot

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## **Overview of Portfolio Manager Functionality**





### Property Types Eligible for ENERGY STAR Score

- Bank Branch
- Barracks\*
- Courthouse
- Data Center
- Distribution Center
- Financial Office
- Hospital (General Medical & Surgical)
- Hotel
- K-12 School
- Medical Office\*

- Multifamily Housing
- Non-Refrigerated Warehouse
- Office
- Refrigerated Warehouse
- Residence Hall/Dormitory\*
- Retail Store
- Senior Care Community
- Supermarket/Grocery Store
- Wastewater Treatment Plant\*
- Wholesale Club/Supercenter
- Worship Facility

\* Property type can earn a 1-100 score, but is not currently eligible for ENERGY STAR Certification

For more information: <u>http://www.energystar.gov/buildings/facility-owners-and-mag-buildings/use-portfolio-manager/understand-metrics/eligibility</u>



# How Does Portfolio Manager Define a Property?

- In most cases, Portfolio Manager defines a property as a <u>single building (e.g.,</u> single structure/building envelope)
  - Glossary/guidance contains specific direction on what should be included as part of gross square footage for each space type
  - Expectation that users can identify and account for all energy consumption associated with the operation of the distinct building structure
  - Focus of the tool is on the core building itself; however, there are methods for dealing with parking areas and associated energy consumption, depending on whether or not parking areas are separately metered
- There are five property types that are frequently situated in campuses, and are eligible to receive an ENERGY STAR 1-100 score for the entire collection of buildings (NOTE: should ideally be entered as a single space use encompassing combined usage attributes across all campus buildings)
  - K-12 School
  - Multifamily Housing
  - Hotel
  - Hospital
  - Senior Care Facility



## How Does Portfolio Manager Define a Property? (cont'd)

- For other building types in campus settings (e.g., office park, higher ed campus), the tool allows users to define individual "child" properties, and then associate these with a higher-level "parent" property.
  - "Parent" properties cannot earn the ENERGY STAR score or certification
     only the constituent "child" buildings (if they are an eligible space type)
  - However, this functionality allows multiple levels of tracking and analysis, including the impact of individual building energy performance on the wider campus
  - Campus functionality also useful in situations where metering setup makes it difficult or impossible to completely benchmark individual properties. E.g.,
    - Buildings that "share" service from a chilled water loop, steam system, etc.
    - Individual "child" buildings are not submetered
- Extensive documentation on how to define properties can be found in the ENERGY STAR FAQs



# What Does it Take to Benchmark a Building?

- General
  - Name
  - Address
  - Year Built
  - Number of buildings
- Space Use Data
  - Specific requirements, based on building type
  - Typically includes number of workers, weekly hours of operation
- Energy Consumption Data
  - 12 consecutive months of energy data
  - All fuel types consumed at property
  - Representing entire property, not just common area



#### Add and Set up a Property





#### Set up a Property: Let's Get Started!

Properties come in all shapes and sizes, from a leased space in a large office building, to a K-12 school with a pool, to a large medical complex with lots of buildings. Since there are so many choices, Portfolio Manager can walk you through getting your property up and running. When you're done, you'll be ready to start monitoring your energy usage and pursue recognition!





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#### **Enter Values for Property Use Details**

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#### **Enter Energy Meters and Energy Usage**

<b>7</b>	Sources of Your Property's Energy How does your property acquire energy? Please select all that apply.			To track you meter for each	king Energy renergy, create a ch source of energ	n energy gy from a				
	v purchased from the grid	-	Basic I	Meter Information						
	How Many Meters? 1 generated on site with my own solar panels generated on site with my own wind turbines	Name: Meter ID: Type: Units: Date Met		e: er ID:	*E	lectric Grid Meter				
	Vatural Gas How Many Meters?			e: 5:	E * [k	lectric - Grid <u>Need to change?</u> Wh (thousand Watt-hours)				
	<ul> <li>Propane</li> <li>Fuel Oil (No. 2)</li> </ul>			Date Meter became Active:		• 01/01/2014 🗰 ☑ Still In Use				
	<ul> <li>Diesel</li> <li>District Steam</li> </ul>		Date Meter became Inactive:							
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	Don't see your energy sources? + See more energy sources?	-	Monthl	y Entries						
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				Start Date	End Date	Usage kWh (thousand Watt-hours)	Cost (\$)	Estimation	Green Power	Last Updated
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				2/1/2015	2/28/2015	15,000	1,500.00			8/17/2015 SCHULTEA
				3/1/2015	3/31/2015	15,000	1,500.00			8/17/2015 SCHULTEA
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X Delete Selected Entries

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#### **Analyze Results – Reporting**



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## How Utilities Are Using Portfolio Manager

- Educating customers
- Incorporating into assessments
- Supporting with data access
- Integrating into program design
- Requiring for program participation
- Taking to scale with web services



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### Options for Utilities to Support Customer Benchmarking Efforts





## Supporting Benchmarking Through Data Access

- Spreadsheet or web-based delivery of aggregate whole-building data
  - Utility works with customer to identify property and map meters to buildings
  - Utility provides a data file to customer containing aggregate whole building consumption data suitable for benchmarking
  - Customer/building owner inputs consumption data into Portfolio Manager (through manual entry or spreadsheet-based upload)
- Direct delivery of energy consumption data into Portfolio Manager via web services
  - Leveraging EPA's framework that allows utilities (and other providers) to exchange data between their systems and Portfolio Manager
  - Consumption data goes directly to Portfolio Manager; no need for customer data entry
  - Opportunity for ongoing data delivery, as well as visibility into building performance





#### **Overview of Utilities Providing Data Access for Benchmarking**

#### Utilities Providing Energy Data for Benchmarking The internet in ENERGY STAR Portfolio Manager

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February 2016

As energy benchmarking becomes standard practice in the commercial building industry, owners and managers of buildings are seeking to simplify the process of obtaining utility data. In addition, as the EPA's ENERGY STAR Portfolio Manage# has become the tool of choice for most organizations to benchmark their energy and water performance, these owners and managers are also looking for ways to streamline the entry of utility data into the tool. The good news is that more and more utilities are stepping up to assist owners and operators by making aggregate whole-building data readily available, and by enabling customers to have their data sent automatically into their Portfolio Manager account via web services. The result: customers spend less time gathering and inputting data and more time working on saving energy; and utilities are better able to understand the characteristics and energy performance of their customers' buildings, thereby allowing for more targeted identification of energy asvings oportunities.

This document provides a complete listing of all known utilities providing customers with energy benchmarking data, including whether the utility provides customers with data in spreadsheet format, or delivers data directly into customers 'Portfolio Manager accounts via web services.

Table 1: Utilities Providing Energy Data to Commercial Customers as a General Service Offering

Table 2: Utilities Providing Portfolio Manager Web Services to Commercial Customers Through Specific Energy Efficiency Programs or Fee-Based Services

#### Table 1: Utilities Providing Energy Data to Commercial Customers as a General Service Offering

State	Utility Name	Aggregate Whole- Building Data? <sup>1</sup>	Multifamily Included?	Format	Contact Information
CA	Los Angeles Department of Water and Power			Web Services	Carla Day, (213) 367-3467 Carla Day@ladwp.com
CA	Pacific Gas & Electric			Web Services	benchmarking@pge.com Click here for more information
CA	Sacramento Municipal Utility District	Yes (2)		Web Services	benchmark@smud.org Click here for more information
CA	San Diego Gas & Electric			Web Services	benchmarking@semprautilities.com Click here for more information
CA	Southern California Edison	Yes (15/15)	Yes	Web Services	benchmarking@see.com Click here for more information
CA	Southern California Gas	Yes (15/15)		Web Services	SCGBenchmarking@semprautilities.com Click here for more information
со	Xoel Energy	Yes (4/50)	Yes	Web Services	kenchmarking@xoelenergy.com Click here for more information
DC	Washington Gas	Yes (5)	Yes	Spreadsheet	aggregateddata@washgas.com Click here for more information
DC	Pepco	Yes (5)	Yes	Web Services	kast-south@pepco.com Click here for more information
ID	Avista Utilities		Yes	Web Services	Leona Doege, (509) 495-4289 Click here for more information
IL.	Commonwealth Edison	Yes (4)	Yes	Web Services	energyusagedata@ComEd.com Click here for more information
L	Peoples Gas	Yes (5)	Yes	Spreadsheet	PGLCityAggregationDara@peoplesgasdelivery.com

<sup>1</sup> The numbers in parentheses signify the minimum number of tenants in a building required for the utility to provide aggregate data without explicit authorization from individual tenants. If there are two numbers (V/T), the second number indicates the maximum percentage of total energy consumption allowed by a single tenant in order for aggregate data to be provided without tenant authorizato.

State	Utility Name	Aggregate Whole- Building Data? <sup>1</sup>	Multifamily Included?	Format	Contact Information
MA	Eversource (formerly NSTAR)	Yes (4/50)	Yes	Spreadsheet	NSTAREnergyDisclosure@nu.com Click here for more information
MA	National Grid	Yes (4/50)	Yes	Spreadsheet	BERDOSupport@nationalgrid.com Click here for more information
MD	Baltimore Gas & Electric	Yes (5)		Web Services	(703) 934-3213 Click here for more information
MD	Pepco	Yes (5)	Yes	Web Services	kast-south@pepco.com Click here for more information
MN	Xoel Energy	Yes (4/50)	Yes	Web Services	benchmarking@xcelenergy.com Click here for more information
NY (New York City only)	Consolidated Edison	Yes (2)	Yes	Spreadsheet	citybenchmarking@coned.com Click here for more information
NY (New York City only)	National Grid	Yes (4/50)	Yes	Spreadsheet	(718) 643-4050 LocalLaw84@us.ngrid.com
NY (New York City only)	PSEG Long Island	Yes (2)	Yes	Spreadsheet	Stacy.McMinn@pseq.com Click here for more information
OR	Avista Utilities		Yes	Web Services	Leona Doege, (509) 495-4289 Click here for more information
OR	Pacific Power	Yes (5)		Web Services	portfoliomanagersupport@ems.schneider-electric.com Click here for more information
PA	PECO	Yes (4)	Yes	Web Services	PECOenergyusagedata@exeloncorp.com Click here for more information
PA	Veolia Energy			Web Services	philadelphia@veoliaenergyna.com Click here for more information
ТХ	Austin Energy	Yes (4/80)	Yes	Spreadsheet	ecad@austinenergy.com Click here for more information
UT	Rocky Mountain Power	Yes (5)		Web Services	portfoliomanagersupport@ems.schneider-electric.com Click here for more information
WA	Avista Utilities		Yes	Web Services	Leona Doege, (509) 495-4289 Click here for more information
WA	Clark Public Utilities	Yes (2)	Yes	Web Services	emdataexchange@clarkpud.com Click here for more information
WA	Enwave Seattle (formerly Seattle Steam)	Yes (2)	Yes	Web Services	benchmarking@utilitystudio.com Click here for more information
WA	Puget Sound Energy	Yes (5)	Yes	Web Services	MyData@pse.com Click here for more information
WA	Seattle City Light	Yes (2)	Yes	Web Services	scl_portfolio_manager@seattle.gov Click here for more information
WA	Tacoma Public Utilities			Web Services	myconsumption@cityoftacoma.org Click here for more information

Table 2: Utilities Providing Portfolio Manager Web Services to Commercial Customers Through Specific Energy Efficiency Programs or Fee-Based Services

State	Utility Name	Service Offering	Further Information
47	Arizona Public	APS Solutions for Business	aps_solutionsforbusiness@automatedenergy.com
M2	Service	Energy Information Services	Click here for more information
47	Salt River	SPATIA Energy Information	spatia@srpnet.com
MZ.	Project	Services	Click here for more information
	No. 1 Frances	1.4.115	support@powertakeoff.com
00	Acel Energy	intovvise	Click here for more information
	No. I Frances	InfolMine.	support@powertakeoff.com
MIN	Acel Energy	intovvise	Click here for more information
NO	Data Carrier	Count Farmeric Officer	info@smartenergyinoffices.com
NC	Duke Energy	Smark Energy in Omdes	Click here for more information
	Data Carro	Count Francis Office	info@smartenergyinoffices.com
30	Duke chergy	Smart Energy in Onices	Click here for more information

EPA will update this document as new offerings become available. If you are aware of other utility offerings that should be included in any of the tables above, or if you have questions about ENERGY STAR or Portfolio Manager, please contact us via the "data & question" links at <u>https://portfolionmanager.zendesk.com/hc/en-us</u>.

ENERGY STAR is the simple choice for energy efficiency. For more than 20 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at <u>energystar.gov</u>.

#### https://www.energystar.gov/buildings/tools-andresources/utilities\_increase\_access\_energy\_data\_help\_commercial\_customers\_benchmark



#### The Value of Web Services for Utilities

- Provide a valuable customer service
- Engage customers through a new communication channel
- Access additional Portfolio Manager information about customer buildings
  - E.g. matching meters to physical facilities, building type, operating hours, space use, number of workers
- Drive customers to participate in DSM programs
- Track customer building performance improvements over time



#### Which Path to Choose?

- Key considerations
  - IT resource requirements
  - Level of customer support desired
  - One-time vs. ongoing service
  - Value of information re: customers' buildings
  - Current vs. future benchmarking demand
- Either approach requires proactive communication with customers



#### **Next Steps and Further Resources**

- Web Services
  - <u>http://portfoliomanager.energystar.gov/webservices</u>
- Spreadsheet-based data upload
  - How To Get Utility Data Into Portfolio Manager
  - View recorded training <u>here</u>
- General Portfolio Manager information
  - Full suite of "How To" guides:
    - http://www.energystar.gov/buildings/training
  - FAQs and technical assistance
    - <u>https://portfoliomanager.zendesk.com/</u>
  - Live and recorded webinars
    - https://esbuildings.webex.com





#### **Questions?**

