Thanks For Joining

This is the US DOE TAP Webcast – Internal Benchmarking Outreach and Data Collection Techniques

We will begin shortly!

For the best audio quality, please dial in using your telephone and place your phone on mute. We will have a Q&A session at the end. If you have a question during the presentation, please type it in the questions window in the control panel to the right.

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Internal Benchmarking Outreach and Data Collection Techniques

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Technical Assistance Program
March 28th, 2013

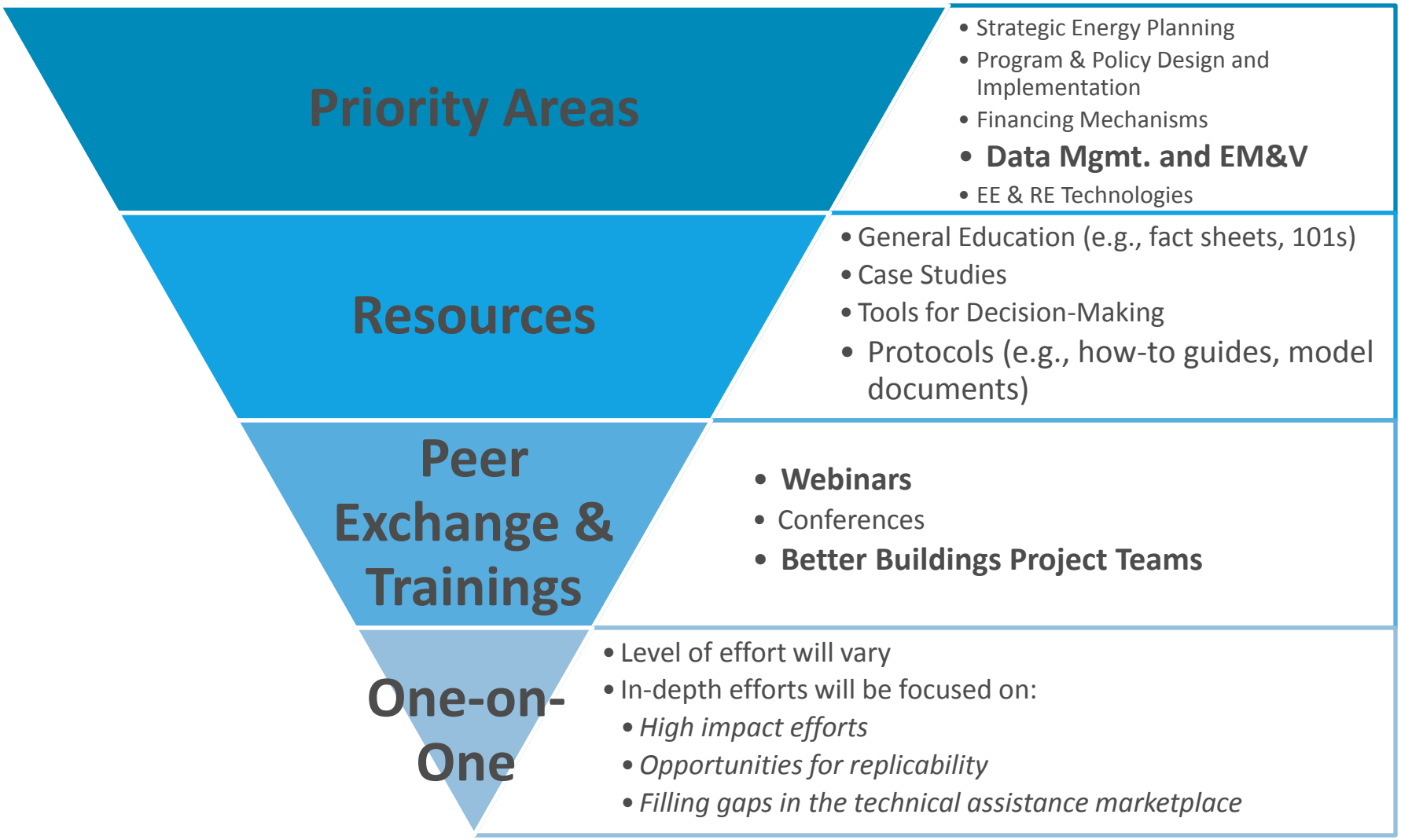
Agenda

1. Welcome & overview
2. Strategies for Outreach and Data Collection
3. In-depth resources from ENERGY STAR
4. On the ground with the State of Delaware
5. New opportunities available for technical assistance
6. Question & answers

What is the Technical Assistance Program?

- DOE's Technical Assistance Program (TAP) provides state, local, and tribal officials with resources to advance successful, high-impact, and long-lasting clean energy policies, programs, and projects
- TAP supports one of EERE's key missions – taking clean energy to scale through high impact efforts
- TAP has been around for over a decade and handled thousands of inquiries – most recently TAP had been focused on supporting Recovery Act grantees
  - One-on-one assistance
  - Online resource library & webinars
  - Facilitation of peer exchange

New TAP Approach



Data Management and EM&V as a Priority Area

- Resources:
  - ***Designing a Benchmarking Plan*** live now on the Solution Center!
  - Rolling out a Data Management and Evaluation portal on the Solution Center in May
- Peer Exchange & Trainings:
  - National webinar trainings, including – ***External Benchmarking Outreach and Data Collection Techniques ,*** April; ***Evaluation, Measurement and Verification methods,*** May
  - Long-term small group peer exchange – join the ***Better Buildings Alliance Project Team for Data Management Approaches***, kicked-off on Wednesday, March 20th (limited space still available)
- Better Buildings Summit for State and Local Governments
  - May 30th and 31st in DC
  - Registration to follow shortly

How to Tap into These and Other TAP Offerings

- Visit the ***Solution Center***
  http://www1.eere.energy.gov/wip/solutioncenter/

- Contact Local or State ***Regional Coordinator***
  http://www1.eere.energy.gov/wip/solutioncenter/pdfs/rcmapsep2012.pdf

- Submit an ***application*** for assistance
  http://www1.eere.energy.gov/wip/solutioncenter/technical_assistance.html

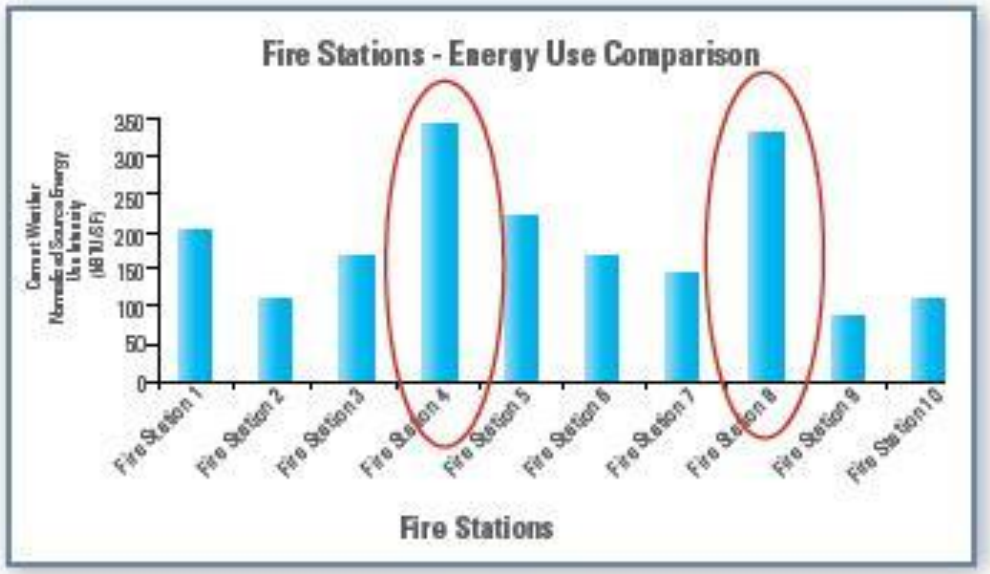
- Sign up for ***TAP Alerts***, the TAP mailing list, for updates on our latest and greatest
  TechnicalAssistanceProgram@ee.doe.gov

What is Benchmarking?

Benchmarking is the process of accounting for and comparing

- a building's current energy performance with its energy baseline,
- a building's energy performance with the energy performance of similar types of buildings

Benchmarking can be used to compare performance over time, within and between peer groups, or to document top performers.



Prioritize efforts by identifying under-performing buildings.

Graphic: EPA

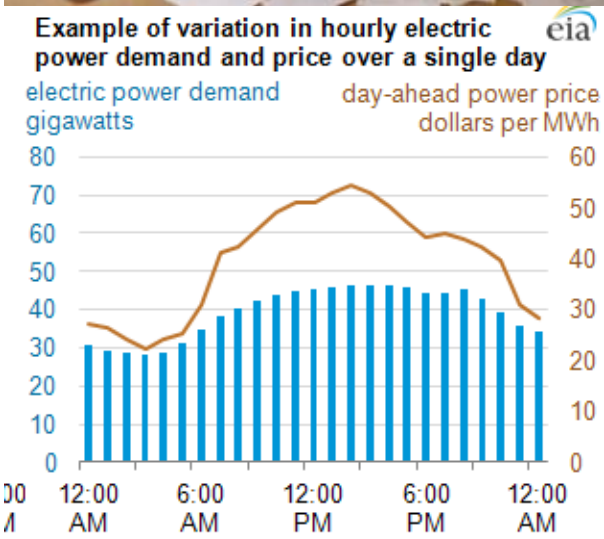
The Benefits of Benchmarking

- Proactive approach to managing energy use
- Continuous improvement as a part of a strategic energy management plan
- Identify billing errors
- Verify pre- and post-project energy use, GHG emissions, and energy costs
- Communicating results in meaningful terms
- Assess effectiveness of current operations, policies and practices
- Assist in planning: set goals, targets, and timelines
- Participation in energy challenges or benchmarking programs

Slide content contribution: EPA

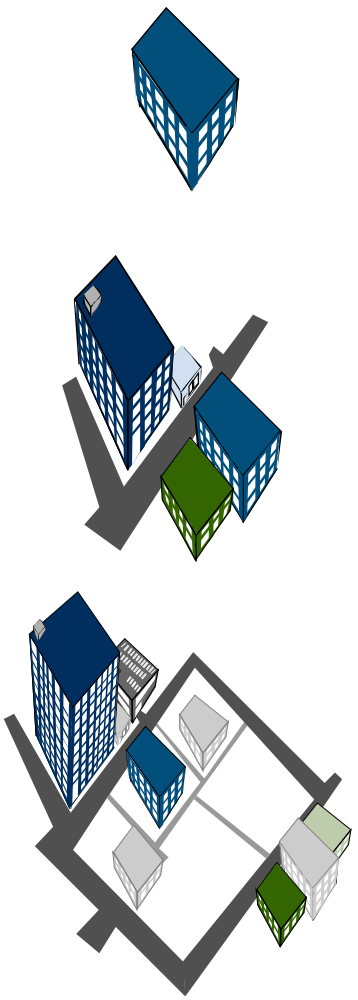
Benchmarking can seem complicated

- Compiling data from multiple sources
- Associating meters with the correct facilities
- Interpreting results
- Using a Benchmarking Tool
- Reviewing the data for completeness
- Cooperation from other staff



Being thoughtful about Benchmarking

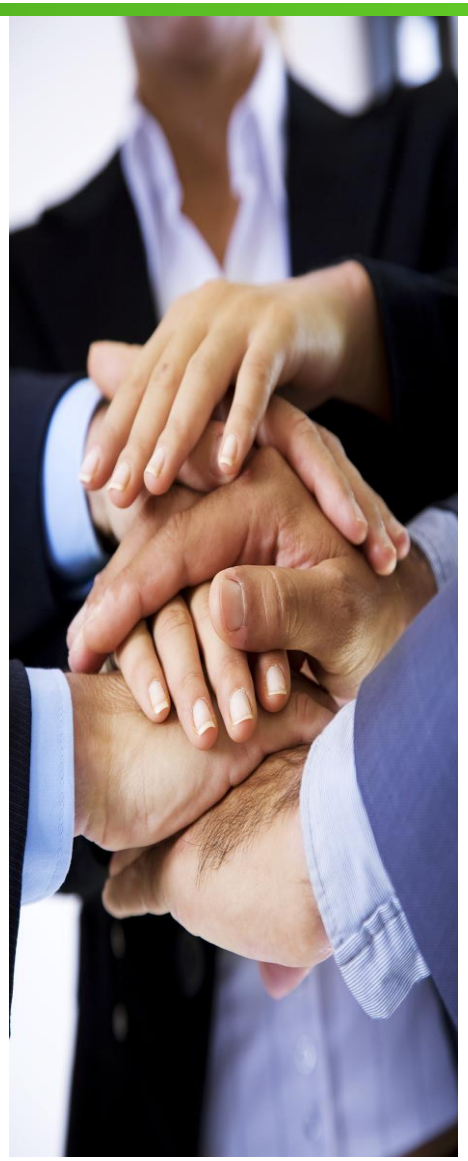
- Creating a benchmarking plan allows for a strategic approach to the benchmarking process
- Avoid pitfalls of the piecemeal process (lack of data needed for the tool or for the results), stalled out cooperation, inability to benchmark against others
- Speak the language of those interested
- Allow for room to grow capabilities



Graphic: EPA

Engaging the Right People

- Secure Top Management buy-in
  - Demonstrates the organization's commitment to benchmarking
  - Influences the outputs and outcomes of the benchmarking program
- Build a benchmarking team
  - Helps distribute some of the work around the organization
  - Brings in the expertise of varying perspectives
- Connect with data sources
  - Understand the current process
  - Identify avenues for effective data sharing



Secure Buy-in from Leadership

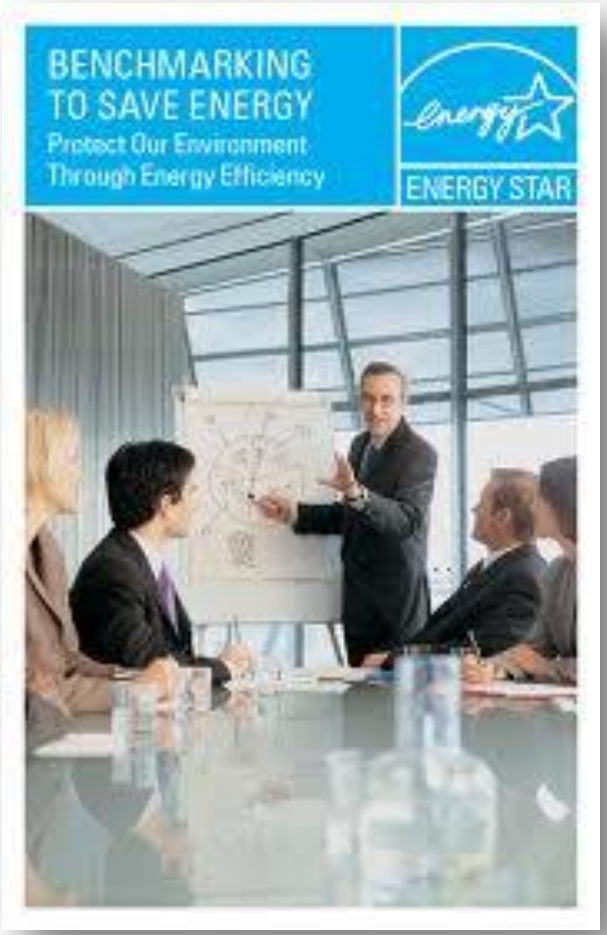
- A critical element of success is the involvement of top management.
  - Secure buy in from top management for initial endorsement
  - Ensure top management is a part of regular review and communication
- Present the case for benchmarking to demonstrate the value
  - Provide list of benefits that benchmarking offers
  - Present significance of energy costs to demonstrate need for energy data management

Energy expenditures average more than $2 per square foot in commercial and government buildings, making energy a cost worth managing. By making energy performance measurable and visible, building owners can improve the efficiency of their buildings, which can drive new investment and create an estimated 5 to 15 green jobs per $1 million invested.

U.S. Department of Energy, Buildings Energy Data Book, Chapter 3 March 2011. http://buildingsdatabook.eren.doe.gov/ChapterIntro3.aspx

U.S. Environmental Protection Agency, Rapid Deployment Energy Efficiency (RDEE) Toolkit: Planning & Implementation Guides www.epa.gov/cleanenergy/documents/suca/rdee_toolkit.pdf

Making the Case for Benchmarking



Benchmark with EPA's ENERGY STAR® Portfolio Manager

Save Energy, Save Money and Fight Global Warming
Start by Measuring Energy Performance

What is Portfolio Manager?

Portfolio Manager is an interactive energy management tool that allows you to track and assess energy and water consumption across your entire portfolio of buildings in a secure online environment. Whether you own, manage, or hold properties for investment, Portfolio Manager can help you set investment priorities, identify under-performing buildings, verify efficiency improvements, and receive EPA recognition for superior energy performance. It is available at no-cost to all users.

Why Benchmark with Portfolio Manager?

Leading organizations take a strategic approach to energy management. By understanding current and past energy use through benchmarking, organizations can identify opportunities to improve energy performance and gain financial benefits. By looking at performance at the whole building level, building managers can identify opportunities for savings through operational improvements and system optimization as well as capital upgrades.

Portfolio Manager can be used by all organizations to:

- **Establish a baseline energy performance for each property using Portfolio Manager.**
- **Set goals for energy performance.**
- **Prioritize investments.**
- **Conduct ongoing measurement and verification of improvements- both financial and environmental.**
- **Earn recognition from EPA, BOMA, ASHE, and others for environmental and operational excellence.**

Certain building types can receive an EPA energy performance rating, comparing facility performance to similar buildings across the country.

What is EPA's Rating System?

The EPA energy performance rating indicates how efficiently buildings use energy on a 1-100 scale; a rating of 50 indicates average energy performance while a rating of 75 or better indicates top performance.

EPA's energy performance rating system accounts for the impact of weather variations as well as changes in key physical and operating characteristics of each building. Based on the information you enter about your building (such as its size, location, number of occupants and number of personal computers), the energy performance rating compares your building's energy use to the actual energy use of similar buildings around the country.

EPA developed the energy performance rating as a screening tool to help organizations assess performance and identify those buildings that offer the best opportunities for improvement and recognition. The rating system's 1–100 scale is easily understood, and can facilitate communication between facility managers and senior executives regarding building performance.

EPA's energy performance rating is available for the following building types. See the ENERGY STAR web site for detailed eligibility requirements.

- Bank/Financial Institution
- Courthouse
- Hospital (acute care and children's)
- Hotel
- House of Worship
- K–12 School
- Medical Office
- Municipal Wastewater Treatment Plant
- Office
- Residence Hall/Dormitory
- Retail Store
- Supermarket
- Warehouse (refrigerated and non-refrigerated)

Buildings that are not eligible to receive a rating also benefit by benchmarking. Performance improvements for all buildings can be tracked over time by comparing current performance to the baseline established in Portfolio Manager.

LEARN MORE AT energystar.gov

ENERGY STAR®, a U.S. Environmental Protection Agency program, helps us all save money and protect our environment through energy efficient products and practices. For more information, visit www.energystar.gov.

www.energystar.gov/publications

Build a Benchmarking Team

- Establish the Benchmarking Program Coordinator/Project Manager
  - One or more person may be required
  - Clearly define the role of the Program Coordinator
- Identify key personnel in the organization to implement the benchmarking plan
  - Involve personnel with familiarity to the energy data and whose work will be affected by the benchmarking program. Good candidates include:
    - Maintenance
    - Operations
    - Purchasing
    - Human Resources
    - Environmental, Health and Safety
    - IT

Tips for Building a Benchmarking Team

Collecting and tracking benchmarking data can be a substantial effort. When appropriate:

- Look for “pro bono” help with analysis from local stakeholders (e.g., interns or college/university expertise, non-profits, and local weatherization agencies).
- Use this part of the project as a professional development opportunity for a local government’s financial analysts or junior engineers.
- Hire consultants such as energy service companies (ESCOs) or third-party providers.
- Incorporate benchmarking into energy efficiency projects and contracts. Some ESCOs will offer free benchmarking as a way of developing business opportunities.

Content Credit: DOE’s CESP Guide

Connect with Data Sources

- Understand existing energy data management process
  - Engage relevant departments and staff to learn about how bills are managed (department heads, accounting, HR, facility management, general services, etc)
  - Inventory buildings and meters, map out metering configuration
- Maintain Relationships
  - Create a clear picture of how the data is being used
  - Demonstrate the value of benchmarking to existing operating practices(more than just a reporting exercise)
  - Provide open avenues for feedback from data sources

Educate the team

- Train benchmarking staff for consistent and accurate results
  - Kick-off meetings to lay out program overview and expectations
    - Program outcomes
    - Timeline
    - Roles
  - Provide benchmarking tool training and support
    - Live demo's of benchmarking software
    - Product training from the manufacturer

- Provide clear instructions and guidelines on data taxonomy
  - Space type definitions (education space vs. lab space)
  - Operating characteristics (FTE's, operating hours, 'occupied')
  - Asset data (predominant lighting type of HVAC equipment)

Sample Data inputs – General Office

General Building Information

- **Facility name**
- **Year built**
- **Building address (ZIPCODE!)**

Space Use Attributes (General Office)

- **Gross floor area (SF)**
- Weekly operating hours
- # of workers on main shift
- # of personal computers
- Percent of floor area that is air conditioned(>=50%, <50%, or none)
- Percent of floor area that is heated (>=50%, <50%, or none)

http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager_benchmarking

Determine a Data Collection Method

- Select a collection method that addresses how the data is currently managed.
- Data can be collected and aggregated in several ways.

Common techniques:

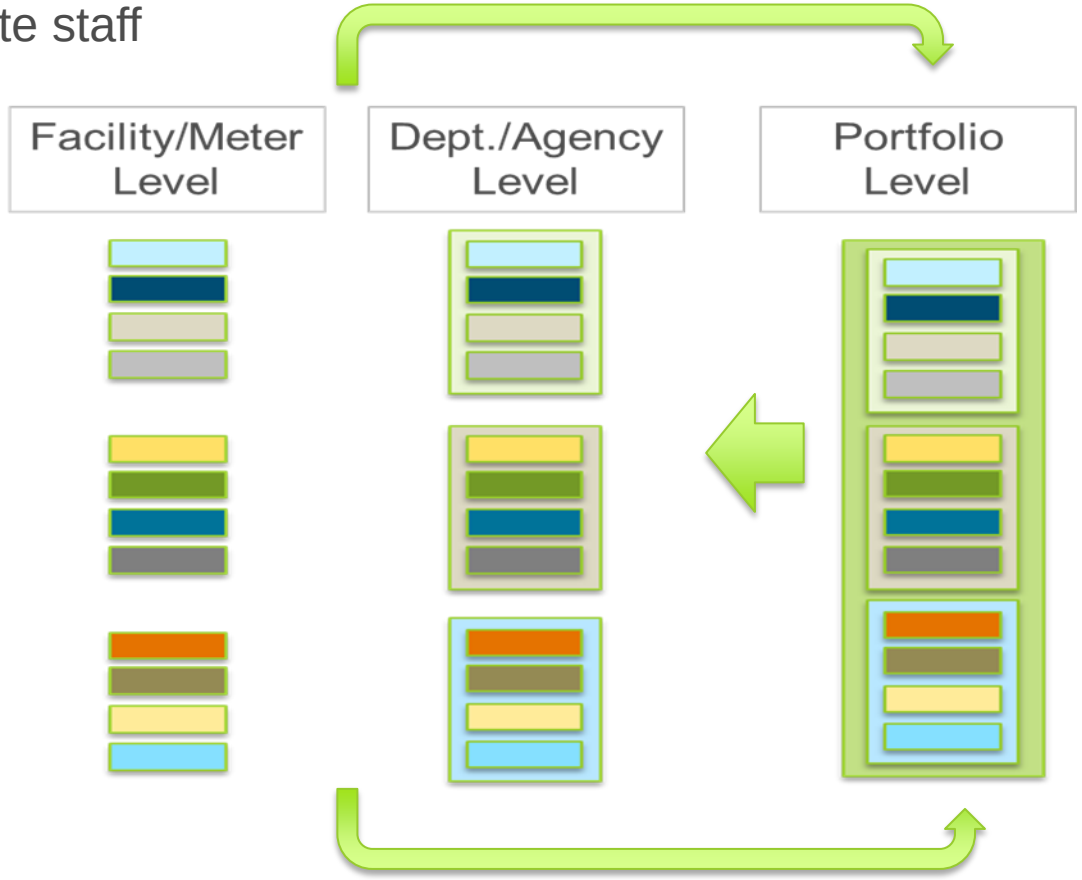
Portfolio Manager strategies for data collection	
Approach	Concept
Centralized	Create a central account to host all organization benchmarking data. Department/facility data is shared with the benchmarking coordinator/team for input
Decentralized	Create a central account to host all organization benchmarking data. Create separate accounts for department or facility managers to benchmark their subset of buildings. Use the sharing function in the tool to transfer benchmarking data to the central account

General Approach Tips

- Develop a building and meter configuration map
  - Chart out meter association with facilities during outreach to the data sources
  - Ensure shared building or energy data is appropriately assigned
  - Create building inventory list to understand facility grouping
- Establish a consistent naming convention
  - Account for organizational hierarchy and building information as needed (i.e. Jurisdiction_Dept_buildingtype_name - CITY_DGS_MFH_CenterStreet)
  - For multiple accounts, standardize username and passwords
- Clearly define data taxonomy
  - Space type definitions, including mixed use: (CBECS Broad Building Category Definitions, Portfolio Manager Space Type Definitions)
  - Operating characteristic definitions (Criteria for Rating Building Energy Performance: Operating Characteristics)
  - Building Characteristics (Buildings Energy Data Exchange Specification)
- Standardize data collection process
  - Report templates (Data Collection Template,)
  - Sharing instructions (Portfolio Manager Sharing instructions)

Centralized Approach

- Create a central account to host all organization benchmarking data.
- Department/facility data is shared with the benchmarking coordinator/team for upload into the tool
- Reports can be generated at the portfolio level and sent back to the appropriate staff

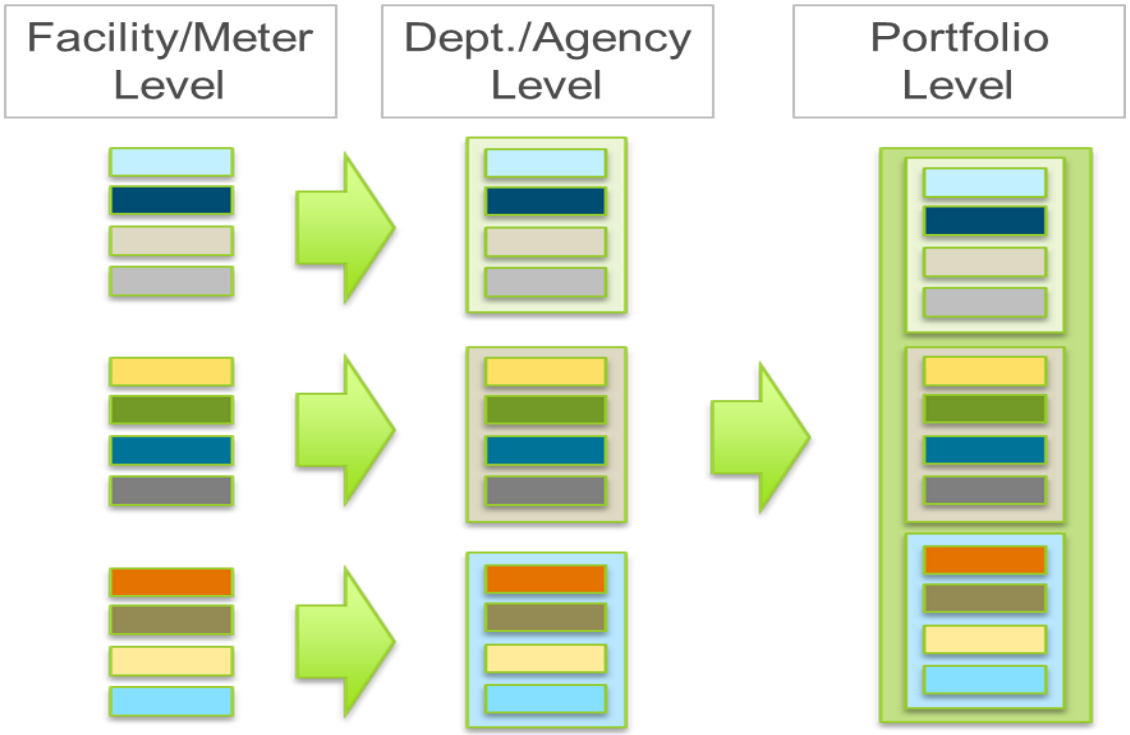


Centralized Approach

- Benchmarking team or coordinator role
  - Organizes training and instructions to staff for consistent sharing
    - File types/templates
    - Benchmarking definitions
    - Period ranges
  - Establishes and communicates program timelines
  - Uploads data into account (manual, bulk, direct exchange)
  - Performs final data scrub and reconnects with staff for clarification
  - Monitors progress and analyzes trends
  - Provides portfolio wide reports to top management and benchmarking staff
- Benchmarking staff responsibilities
  - Complete reporting templates and performs basic QA/QC
  - Shares data with benchmarking coordinator
  - Resolves issues with data quality

Decentralized Approach

- Create a central account to host all organization benchmarking data.
- Create separate accounts for department or facility managers to benchmark their subset of buildings.
- Use the sharing function in the tool to transfer benchmarking data to the central account



Decentralized Approach

- Benchmarking team or coordinator role
  - Organizes training and instructions to staff for consistent sharing
    - File types
    - Benchmarking definitions
    - Date ranges
    - Access privileges
  - Ensures proper grouping and aggregation and final data scrubbing
  - Establishes and communicates portfolio wide timelines
  - Monitor overall progress and analyze trends
  - Provides portfolio wide reports to top management and benchmarking staff
- Benchmarking staff responsibilities
  - Individually maintain account of unique facilities
  - Complete reporting templates for upload or manually enter data
  - Perform basic QA/QC
  - Share facility information to appropriate group accounts
  - Resolves issues with data quality
  - Monitors progress for their subset of buildings

ENERGY STAR® Portfolio Manager™

- ✓ 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 purchases
  - 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)
  - ENERGY STAR 1-to-100 score (available for 15 building types)
  - Greenhouse gas emissions (indirect, direct, total, avoided)
  - Water consumption (indoor, outdoor)

→ ***Accessible in a free, online platform: www.energystar.gov/benchmark***

Establish Top-level Commitment

- ✓ Secure buy-in from management by demonstrating concrete savings potential using financial metrics
- ✓ Adopt a policy that establishes a commitment to benchmark all public buildings
- ✓ Policy should include activities that match stated goals:
  - Manage energy performance in a standard platform
  - Identify opportunities to improve performance throughout your portfolio
  - Measure progress towards established energy or GHG reduction goals
  - Report savings (energy, cost, GHG) internally and externally
- ✓ Refer to existing state and local policies
  - Connecticut, Delaware, Washington, New York City, Minneapolis, and more at www.energystar.gov/government

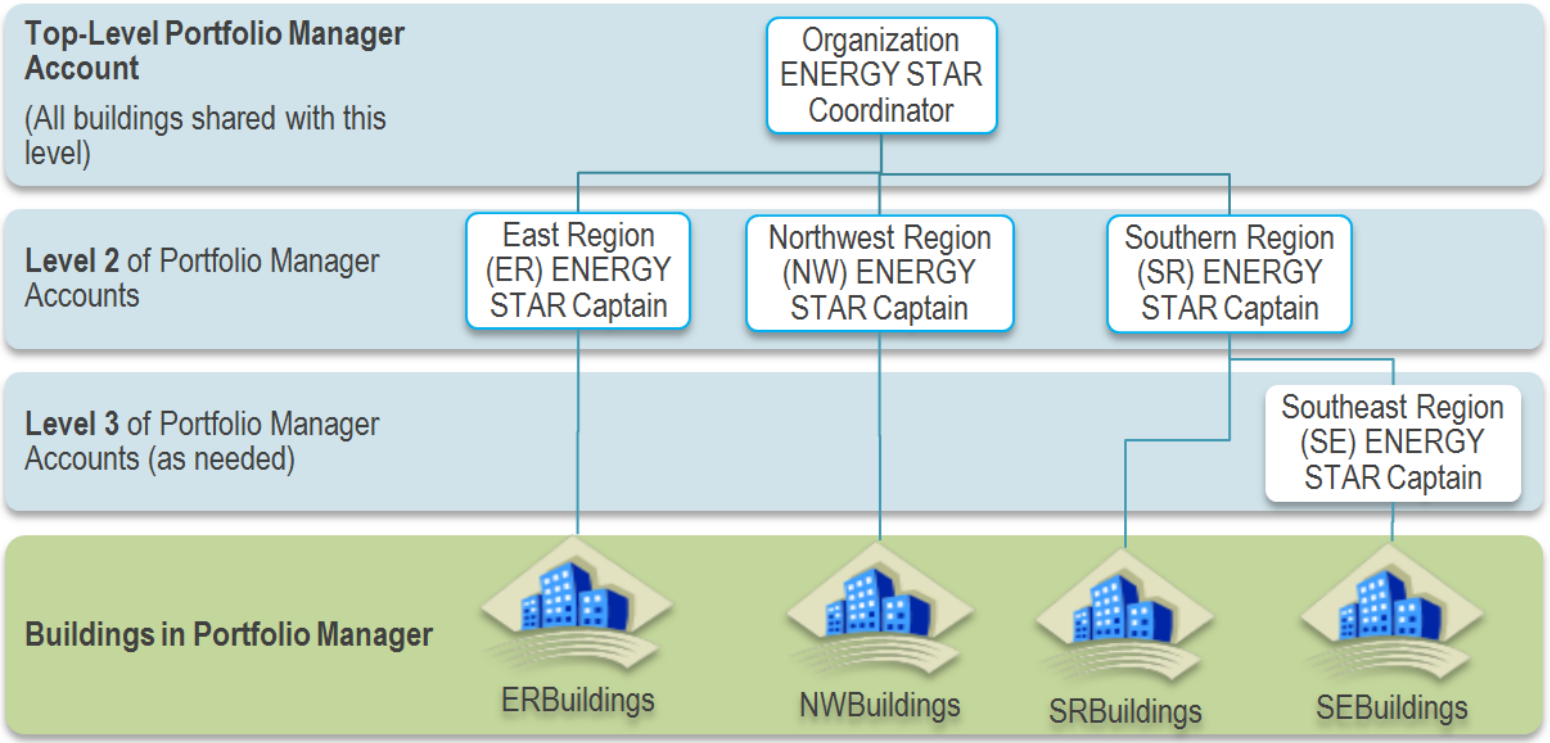
Plan

- ✓ Plan a reporting strategy
  - Determine a baseline period based on established goals
  - Plan to capture reporting metrics available in Portfolio Manager
  - Set a timeline to share results and plan to integrate benchmarking data into EE project development
  - Set schedule for public reporting

Whole Building Energy Use	Change from baseline: total energy use
	Weather-normalized energy use intensity (Kbtu/square foot)
	1-100 Energy Performance Score (where available)
Electricity	Electricity saved per year (kWh)
	% savings of kWh per year
Natural Gas	Natural gas savings per year (therms or CCFs)
	% savings natural gas per year
Other Key Metrics	Comparison to the national average (CBECS)
	Total on-site renewable energy production
	Total green house gas emissions
	Energy cost (total and per square foot)

Plan

- ✓ Determine the **number of Portfolio Manager accounts** you need and assign personnel from each division to manage each Portfolio Manager account

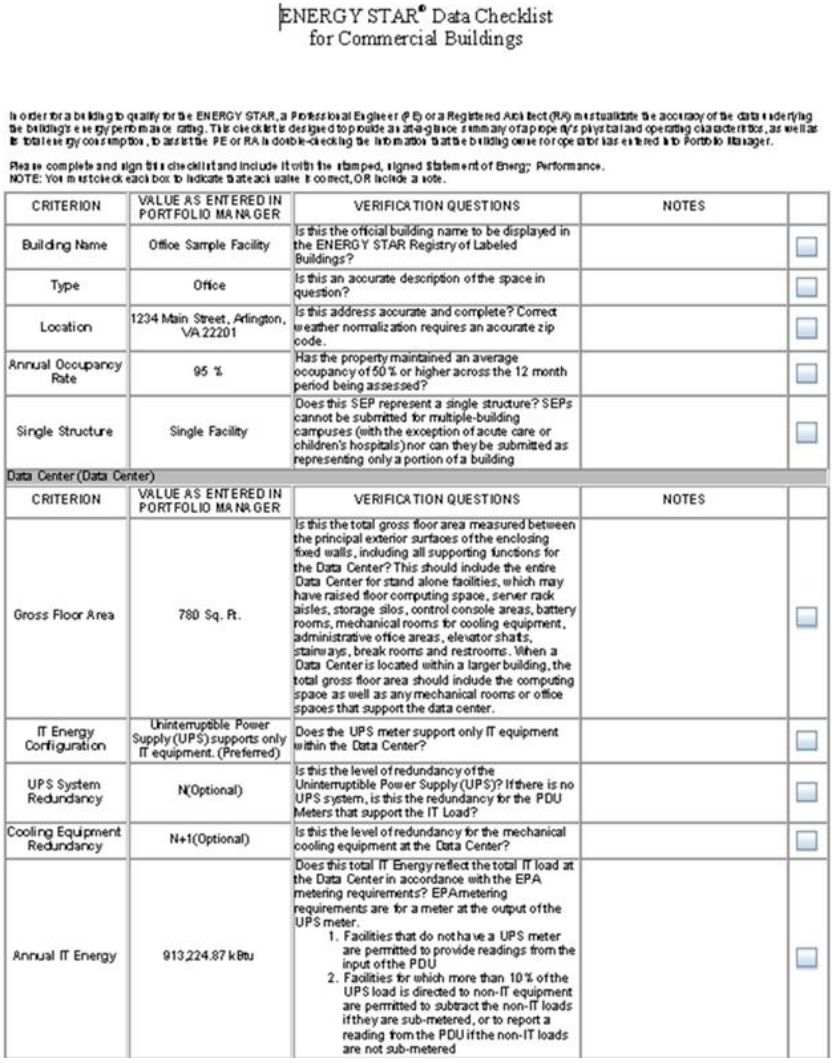


Plan

- ✓ Determine points of contact and **roles and responsibilities**
- ✓ Determine the size of your portfolio, where the space and utility data is stored, who maintains it, and how account managers can find it
- ✓ **Create a naming convention** for buildings
  - ✓ For example, if Building1 belongs to the organization's East Region (ER), you may name it "ER_Building1." Consistency is key in naming buildings.
- ✓ Agree on a **benchmarking method** for transferring energy and water consumption data to Portfolio Manager.
  - *Single Building manual data entry:* See the Benchmarking Starter Kit
  - *Bulk data upload:* See Bulk data upload templates
  - *Data Exchange services:* See Portfolio Manager Data Exchange
- ✓ View training resources offered by ENERGY STAR or SPPs

Collecting Benchmarking Data

- ✓ Create account(s)
- ✓ Collect and enter building characteristics
- ✓ Collect and input (or review) energy and/or water data
- ✓ Ensure accuracy of the data entered into and calculated metrics received from Portfolio Manager
- ✓ Share access with the upper level Portfolio Manager accounts
- ✓ Participate in further training once the benchmarking process begins



ENERGY STAR® Data Checklist for Commercial Buildings

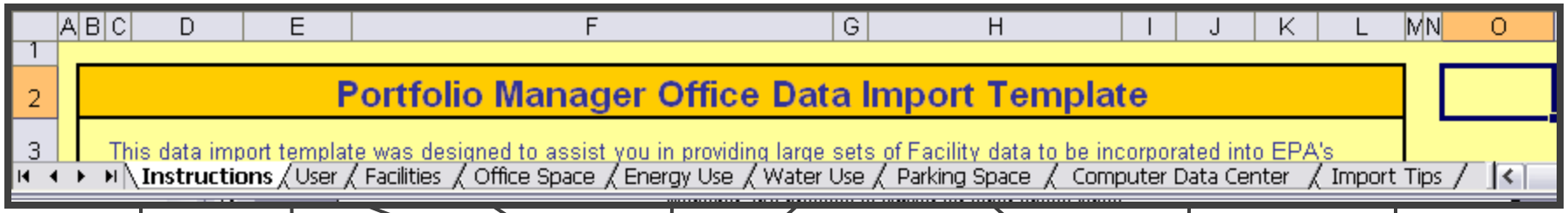
In order for a building to qualify for the ENERGY STAR, a Professional Engineer (PE) or a Registered Architect (RA) must validate the accuracy of the data underlying the building's energy performance rating. This checklist is designed to provide an at-a-glance summary of a property's physical and operating characteristics, as well as its total energy consumption, to assist the PE or RA in double-checking the information that the building owner or operator has entered into Portfolio Manager.

Please complete and sign this checklist and include it with the stamped, signed Statement of Energy Performance.
NOTE: You must check each box to indicate that each value is correct, OR include a note.

CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	
Building Name	Office Sample Facility	Is this the official building name to be displayed in the ENERGY STAR Registry of Labeled Buildings?		☐
Type	Office	Is this an accurate description of the space in question?		☐
Location	1234 Main Street, Arlington, VA 22201	Is this address accurate and complete? Correct weather normalization requires an accurate zip code.		☐
Annual Occupancy Rate	95 %	Has the property maintained an average occupancy of 50% or higher across the 12 month period being assessed?		☐
Single Structure	Single Facility	Does this SEP represent a single structure? SEPs cannot be submitted for multiple-building campuses (with the exception of acute care or children's hospitals) nor can they be submitted as representing only a portion of a building		☐
Data Center (Data Center)				
CRITERION	VALUE AS ENTERED IN PORTFOLIO MANAGER	VERIFICATION QUESTIONS	NOTES	
Gross Floor Area	780 Sq. Ft.	Is this the total gross floor area measured between the principal exterior surfaces of the enclosing fixed walls, including all supporting functions for the Data Center? This should include the entire Data Center for stand alone facilities, which may have raised floor computing space, server rack aisles, storage silos, control console areas, battery rooms, mechanical rooms for cooling equipment, administrative office areas, elevator shafts, stairways, break rooms and restrooms. When a Data Center is located within a larger building, the total gross floor area should include the computing space as well as any mechanical rooms or office spaces that support the data center.		☐
IT Energy Configuration	Uninterruptible Power Supply (UPS) supports only IT equipment. (Preferred)	Does the UPS meter support only IT equipment within the Data Center?		☐
UPS System Redundancy	N(Optional)	Is this the level of redundancy of the Uninterruptible Power Supply (UPS)? If there is no UPS system, is this the redundancy for the PDU Meters that support the IT Load?		☐
Cooling Equipment Redundancy	N+1(Optional)	Is this the level of redundancy for the mechanical cooling equipment at the Data Center?		☐
Annual IT Energy	913,224.87 kBtu	Does this total IT Energy reflect the total IT load at the Data Center in accordance with the EPA metering requirements? EPA metering requirements are for a meter at the output of the UPS meter. 1. Facilities that do not have a UPS meter are permitted to provide readings from the input of the PDU 2. Facilities for which more than 10% of the UPS load is directed to non-IT equipment are permitted to subtract the non-IT loads if they are sub-metered, or to report a reading from the PDU if the non-IT loads are not sub-metered		☐

Collect and Enter Data with Import Templates

Portfolio Manager allows you to import data for multiple facilities using a downloadable Excel template



In the User tab, enter your login name, indicate user contact information, and respond to optional questions for EPA tracking purposes.

Use the Facilities, Space, Energy Use, and Water Use tabs to fill in the required data.

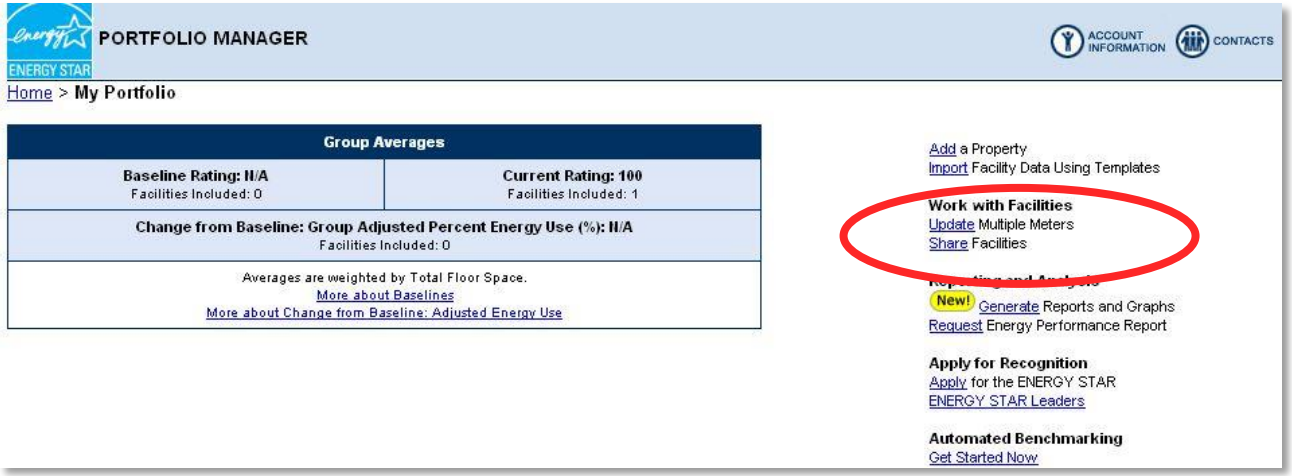
For additional space types, fill in fields for Parking Space, Data Center Space, and Swimming Pool (if available).

Read the Instructions and Import Tips tabs for information on the import process and data requirements.

To import the data into Portfolio Manager, e-mail the completed template to **buildings@energystar.gov**

Collect and Enter Data with Multi Facility Meter Updates

- ✓ Once you have established an account and benchmarked your buildings, you should update energy data on a regular basis



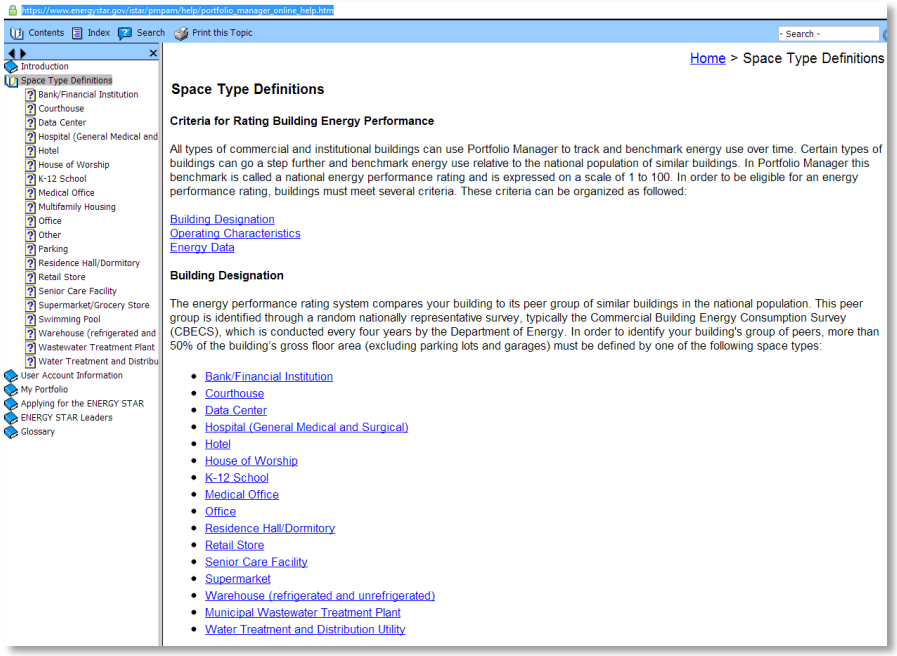
B	C	D	E	F	G	H
Facility Name (Do Not Alter)	Meter Name (Do Not Alter)	Energy Type (Units) (Do Not Alter)	Start Date (mm/dd/yyyy)	End Date (mm/dd/yyyy)	Energy Use	Cost - US Dollars (optional)
Sample Facility	Sample Meter	Electricity (kWh (thousand Watt-hours))	1/1/2006	1/31/2006	1423	205
Sample Facility	Sample Meter	Electricity (kWh (thousand Watt-hours))	2/1/2006	2/28/2006	1520	230
Sample Facility	Sample Meter	Electricity (kWh (thousand Watt-hours))	3/1/2006	3/31/2006	1516	221
Sample Facility	Sample Meter	Electricity (kWh (thousand Watt-hours))	4/1/2006	4/30/2006		

Portfolio Manager Quality Assurance Tips

1. Create/edit a Portfolio Manager account
   - Basic contact information for the account owner
2. Add/edit a property
   - Property name, actual street address, and zip code
3. Add/edit a space
   - Focus on the building's primary function; list as few space types as possible
   - Include parking garages only if not separately metered
4. Add/edit energy and water meters
   - At least 12 straight months of energy use data for all fuel types for the same period
   - From the "My Portfolio" page, use the View, "Summary: Energy Use": An alert may appear if there is a problem with the data

Portfolio Manager Quality Assurance Resources

- Use the data collection worksheet for guidance on compiling space attribute data
- Portfolio Manager Help clarifies space type definitions



ENERGY STAR® Portfolio Manager Data Collection Worksheet

LEARN MORE AT energystar.gov

This worksheet was designed to help building owners and managers collect data to benchmark buildings using EPA's ENERGY STAR Portfolio Manager. The information in this worksheet will be used to establish your building's profile in Portfolio Manager, which is critical to calculate benchmarks of key metrics such as energy intensity and costs, water use, and carbon emissions. **All building types can be entered into Portfolio Manager and receive energy and water benchmarks, as well as a comparison of performance against a national average for buildings of a similar type.**

Some buildings will also receive an ENERGY STAR score. The ENERGY STAR score is a benchmark that indicates how efficiently buildings use energy on a 1-100 scale. A score of 50 indicates that energy performance is average compared to similar buildings, while a score of 75 or better indicates top performance, and means your building may be eligible to earn the ENERGY STAR label. To receive an ENERGY STAR score, the gross floor area of the building must be comprised of more than 50% of one of the following space types: bank/financial institution, courthouse, data center, hospital (general medical and surgical), hotel, house of worship, K-12 school, medical office, office, residence hall/dormitory, retail store, senior care facility, supermarket/grocery store, warehouse (refrigerated and unrefrigerated), and wastewater treatment plant.

Use this worksheet to collect the data for all space types applicable to your facility.

Required Data for ENERGY STAR Benchmarking

- Portfolio Manager username and password.
- The building street address, year built, and contact information.
- The building gross floor area and key operating characteristics for each major space type. Use this worksheet to collect this information before logging in to Portfolio Manager.

Medical Office:	General Office 1:
Required:	*Required:*
_____ Gross floor area (SF)	_____ Gross floor area (SF)
_____ # of workers on main shift	_____ Weekly operating hours
_____ Weekly operating hours	_____ # of workers on main shift
_____ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)	_____ # of personal computers
_____ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)	_____ Percent of floor area that is air conditioned (>=50%, <50%, or none)
	_____ Percent of floor area that is heated (>=50%, <50%, or none)

EPA

Portfolio Manager Quality Assurance Tips

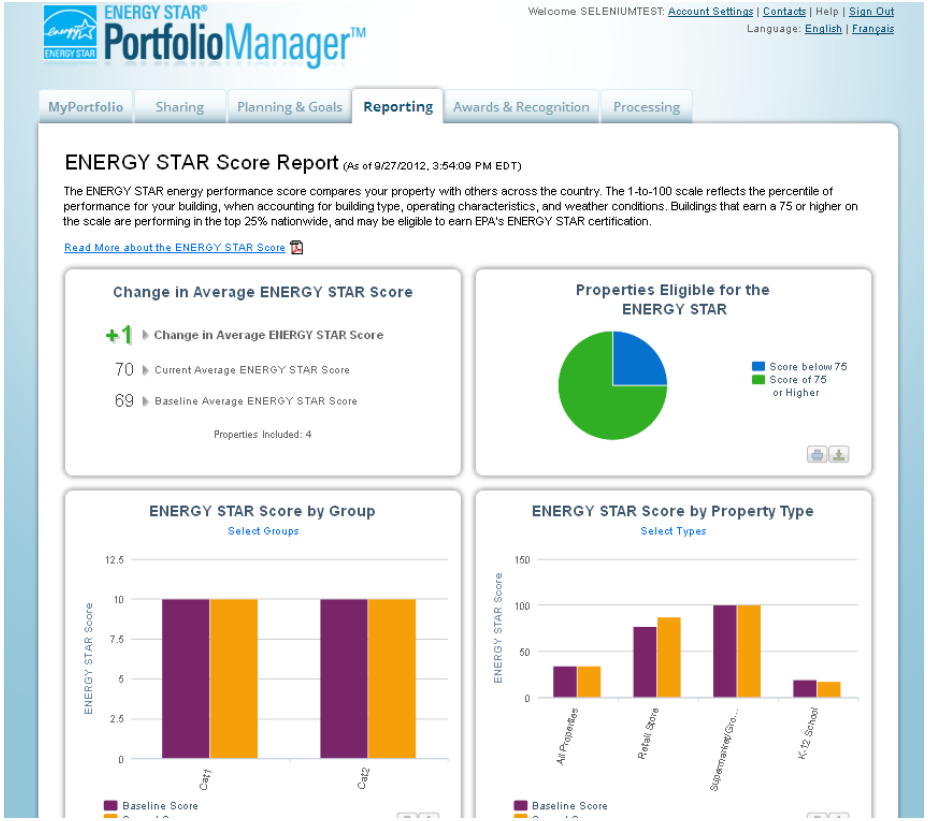
- ✓ **Incomplete Meter Data:** All meters must have complete usage data through the entire reporting period
- ✓ **Gaps and Overlaps in Meter Data:** Gaps or overlaps in the meter data of more than one day will cause errors
- ✓ **Length of meter entries:** No individual electrical meter entry can be for a period longer than 65 days
- ✓ **Extreme Energy Use Intensity (EUI) or Water Use Intensity (WUI) values, or Extreme Fluctuations**
  - Mismatched units
  - Missing digits
  - Extra digits Transposed digits
  - Swapped cost and consumption information

Deploy EPA Training Resources

- ✓ **Train your team** using the following no-cost training resources available online at: www.energystar.gov/buildingstraining
  - ENERGY STAR Overview / Portfolio Manager Overview
  - Arrange an internal Portfolio Manager detailed training
  - Portfolio Manager FAQ (portfoliomanager.supportportal.com)
- ✓ Homework for account managers— After they have completed the basics of benchmarking training, encourage all account managers to view a detailed training session and benchmark at least one building
- ✓ For more information, visit ww.energystar.gov/benchmark

Portfolio Manager Upgrade – coming in June!

- ✓ New features throughout
  - Completely new look and feel
  - Streamlined data management
  - Improved reporting
- ✓ All data currently in existing Portfolio Manager accounts will be transferred
- ✓ Register for EPA's next webinar (4/11 and 4/15) to get ready for the launch in June at: www.energystar.gov/pmupgrade



Additional Information

Visit www.energystar.gov/buildings
E-mail buildings@energystar.gov

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Benchmarking: Outreach and Collection

State of Delaware – March 2013

Background

- Delaware began benchmarking in 2010.
  - Requirement for executive agencies
    - Executive Order 18: Leading by Example
- Baseline for benchmarking was 2008.
- We continue to report through 2015.
- Data is used extensively for planning.
  - Ongoing maintenance & operations
  - Energy conservation & efficiency projects
  - Greenhouse gas mitigation
  - Opportunities for renewable energy

Outreach – Top-Down Approach

Governor – EO 18

Cabinet

EO 18 Workgroup

Executive Branch Agencies

Utility Providers

Outreach – EO 18 Kick Off

- Issued February 17, 2010
  - Media blasts from Governor's Office and agencies
    - Press releases, fact sheets, posters
      - Many can still be found on agency websites today.
- Cabinet-level support and oversight
  - Cabinet Committee on Energy
- EO 18 Workgroup
  - Sustainability Managers from each department
    - Division Directors, Bureau Chiefs, other managers

Outreach – Management Buy-In

- EO 18 Workgroup prepared a plan for Cabinet approval within 3 months.
  - Presented to the Cabinet with Executive branch agencies in attendance
    - Slide show, discussion, implementation guide
    - Included deliverables for:
      - Identifying owned facilities/gathering insurance reports
      - Identifying facility managers
      - Selecting a benchmarking program
      - Entering/maintaining data
- Cabinet approved the plan.

Outreach –Accountability

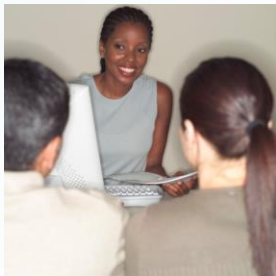
- Workgroup met monthly, reported to the Cabinet quarterly.
  - Meetings convened at a central location with optional teleconference attendance
    - Mostly teleconference since 2012
  - Reports emailed to the Chair of the Cabinet Committee on Energy
    - Compiled from decentralized reports provided by each agency on the EO
      - Standardized template
    - Drafted by the co-chairs of the EO 18 Workgroup

Outreach – Promoting Value

- Workgroup maintained momentum with agencies through decentralized communications.
  - Email blasts to agencies
    - Overall desired outcomes of the EO
    - Ways to benefit from energy-wise thinking at home
  - Green committees made up of agency staff
    - Participation in the EO
    - Fiscal benefits of energy initiatives
  - Posters and signs throughout owned facilities
    - Ways to conserve energy
    - Energy efficiency projects

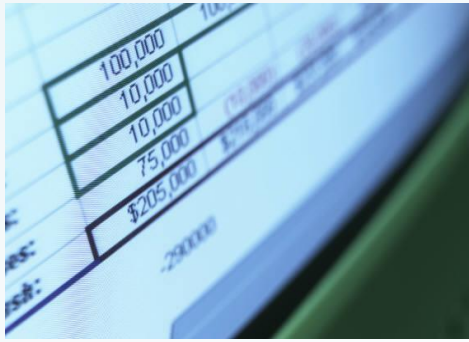
Collection - Foundations

- Workgroup identified facilities through state property lists.
  - Specific to each department
  - Included age, sq footage, physical address
- Workgroup contacted fiscal offices for utility providers and account numbers.
- Reporting staff contacted utility providers for usage reports and/or invoice copies
  - Some preferred to work through their fiscal offices.
  - Most documents were/continue to be emailed.



Collection – Gathering Techniques

- Manual Requests
  - Agency-to-Fiscal
  - Agency-to-Utility
- Streamlined Periodic Reports
  - (Typically monthly)
  - Fiscal-to-Agency
  - Utility-to-Agency
  - Online

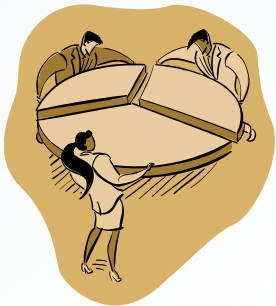


Collection – Benchmarking Training

- EO 18 Workgroup learned ENERGY STAR's Portfolio Manager.
  - Each Sustainability Manager trained his/her agency staff.
    - Building data
      - Year built, square footage, occupancy, space uses
    - Utility data
      - Number of meters, types of energy sources, account numbers, who pays, billing frequency
    - Actual utility invoices and/or spreadsheets
      - Energy units (kWh, ton-hours, gal, ccf)
      - Energy costs (total versus just distribution or supply)

Collection – Decentralized Reporting

- Agencies report directly into Portfolio Manager.
- OMB is the central sharing point for aggregation and analysis of the State portfolio.
  - Sends analyses through:
    - Email communications
    - Secure file-sharing cloud
- OMB helps agencies work through Portfolio Manager.
- OMB reaches out to the Workgroup for:
  - QA/QC of data & energy use
- OMB reports publicly on its agency website.



Collection – Lessons Learned

- Manual Requests
  - Work best when used for a small pool of accounts and when executed regularly (1-3 months)
- Streamlined Periodic Reports
  - Work great for larger groups of accounts
  - Relationships matter!
    - Educate your contacts on what you need, why you need it, and *thank them often*.
    - Chances are, they are providing a unique service specifically for you.
- Be prepared to offer ongoing training and support

Questions?

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Office of Management and Budget
State of Delaware

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Better Buildings Alliance

- Opportunity for governments to work collaboratively with DOE to advance their clean energy goals
- Helps members sustain success of ARRA funded work
- Leverages DOE expertise
- Provides forum to engage with peers around actionable steps
- Public sector Project Teams focus on strategic target areas:
  - Community Strategic Energy planning
  - Data Management Approaches
  - Finance Strategies
  - Energy Savings Performance Contracts (ESPC)
  - Technical areas (lighting, HVAC, plug loads, data centers, etc.)

Alliance Members Agree to:

- **Commit**
  - Assign a representative
  - Share energy savings goals, encouraged to be an annual goal of >2%
- **Act**
  - Work to achieve goals and monitor progress
  - Participate in at least one BBA workgroup or activity
- **Share**
  - Provide annual updates on energy savings and progress toward meeting goals
  - Share your successes and help other members replicate your results

DOE Agrees To:

- **Assist**
  - Provide information and resources to help members meet energy goals
  - Work with members to create new resources and tools
- **Connect**
  - Provide a neutral, third-party platform for peers to build solutions
  - Connect members with financial allies for financing solutions
- **Inform**
  - Keep members informed through regular BBA communications and webinar series
  - Provide access to DOE and trusted third-party resources

Data Management Approaches Project Team

- Will equip members with knowledge, tools, peer-exchange, and feedback to develop data management practices
- Leverage existing data management materials
- Sessions held via facilitated webinar
- Participants will execute data management practices in real time as they are discussed in WG sessions
- Insights participants gain through process will be shared with peers during Project Team meetings

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

EERE Home | Programs & Offices | Consumer Information

Better Buildings Alliance

Better Buildings SEARCH

Search Help

Installation of night curtains

Whole Foods Market, a BBA member, installed night curtains to cover the refrigerated produce cases when stores are closed. This strategy lowers the cooling load on the refrigeration case by about 40% during unoccupied periods.

BETTER BUILDINGS ALLIANCE SIGN-UP FORM

Building owners and operators can join the Better Buildings Alliance (BBA) by completing the sign-up form.

SIGN-UP FORM

Join the Better Buildings Alliance

Commercial buildings—our offices, schools, hospitals, restaurants, hotels and stores—consume nearly 20 percent of all energy used in the United States. We spend more than $200 billion each year to power our country's commercial buildings. Unfortunately, much of this energy and money is wasted: a typical commercial building could save 20 percent on its energy bills simply by commissioning existing systems so they operate as intended. Energy efficiency is a cost effective way to save money, support job growth, reduce pollution, and improve competitiveness.

Through the Better Buildings Alliance, members in different market sectors identify specific barriers and work with the U.S. Department of Energy's (DOE) exceptional network of research and technical experts to develop and deploy innovative, cost-effective, energy-saving solutions that lead to better technologies, more profitable businesses, and better buildings in which we work, shop, eat, stay, and learn.

http://www1.eere.energy.gov/buildings/betterbuildings/bba/bba-index.html

Interested in the Better Buildings Alliance?

For more information on the **Better Buildings Alliance**, please send questions to

bba@ee.doe.gov

Question and Answer Time

If you have questions or comments, let us know what you think

Type questions in the Question box in the control box on the right

Thank you for participating

Slides will be posted on the Solution Center

http://www1.eere.energy.gov/wip/solutioncenter/

More questions? Contact Joel Blaine – Joel.Blaine@ee.doe.gov