

Verifying Energy Benchmarking Data

Scott Emery, September 29, 2020



Verifying Energy Benchmarking Data

This webinar introduces benchmarking data verification methods, procedures, and expectations for individuals providing verification services. The basics of ENERGY STAR verification will be covered as well as the expected requirements for verification in accordance with the District's benchmarking regulations. Differences between the two procedures will be explained. Key areas of focus for verification will be highlighted using examples.

Agenda

- What is Building Energy Benchmarking?
- DC Benchmarking and Benchmarking Verification Requirements
- Role of the Verifier
- Verifying Benchmarking Data
 - Basic Property Information
 - Property Use Details
 - Energy Consumption Data

Verifying Energy Benchmarking Data

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Verifying Energy Benchmarking Data

Introduction

Slide content from the EPA’s “Verifying the ENERGY STAR Certification Application” was repurposed for this session.

The reference presentation is available at:
https://www.energystar.gov/buildings/tools-and-resources/verifying_energy_star_certification_application

More information about Portfolio Manager or the ENERGY STAR program, can be found at:
www.energystar.gov/BuildingsHelp

The ENERGY STAR Licensed Professional’s Guide is available at:
www.energystar.gov/lpguide

Verifying Energy Benchmarking Data

What is Energy Benchmarking?

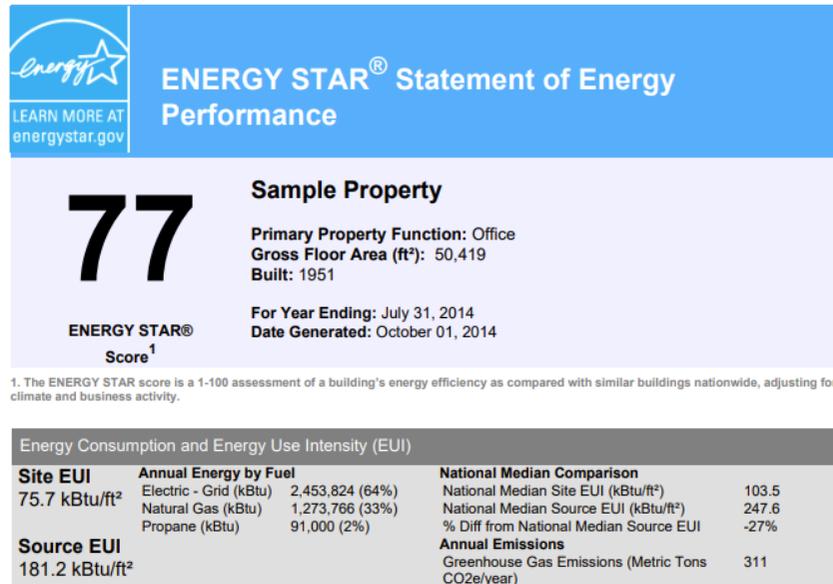
Energy benchmarking means tracking a building's energy and water use and using a standard metric to compare the building's performance against past performance and to its peers nationwide. These comparisons have been shown to drive energy efficiency upgrades and increase occupancy rates and property values.

How is Energy Benchmarking Done?

Building owners or their representatives typically track the energy and water usage for their building(s) using the [US EPA's ENERGY STAR® Portfolio Manager](#).

Verifying Energy Benchmarking Data

What is Benchmarking?



To get started in Portfolio Manager you will need:

- Property Information
 - Primary function
 - Name, address, postal code
 - Year built
 - Gross floor area
- Property use details, e.g.
 - Operating hours
 - Number of computers
 - Number of workers, etc.
- At least 12 months of consumption data for resources you want to track
 - Property-specific utility bills for all purchased and on-site generated energy and water
 - Quantity of waste and materials recycled, disposed, donated, etc.

The screenshot shows the ENERGY STAR Portfolio Manager website. A red box highlights the left-hand navigation menu, which includes links for 'Portfolio Manager', 'The benchmarking starter kit', 'Enter data into Portfolio Manager', 'The data quality checker', 'How Portfolio Manager calculates metrics', 'Interpret your results', 'Verify and document your savings', 'Share and request data', 'Updates to ENERGY STAR® metrics with new market data', 'Get help accessing your utility data', 'Scorecard', and 'Track waste and materials'. Another red box highlights the '2020 TOP CITIES' section, listing Los Angeles, Washington, DC, and San Francisco. A third red box highlights the login form, which includes fields for 'username' and 'password', a 'Forgot password?' link, a 'Forgot username?' link, and a green 'LOGIN' button. A fourth red box highlights the 'PORTFOLIO MANAGER DATA COLLECTION WORKSHEET' link, which is accompanied by an icon of a tablet and the text 'Easily see what information'.

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What is Benchmarking?

Source: [ENERGY STAR® Portfolio Manager®](#)



The [Clean and Affordable Energy Act of 2008 \(CAEA\)](#) and the [Clean Energy DC Omnibus Act of 2018](#) require that owners of private buildings and the District government annually benchmark their energy and water efficiency and report the results to DOEE for public disclosure.

Building Size	Reporting Requirement Begins
50,000+ ft ²	2014 (with 2013 data)
25,000-49,999 ft ²	2022 (with 2021 data)
10,000-24,999 ft ²	2025 (with 2024 data)

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Benchmarking Programs & Policies

Source: [DC DOEE](#)



BUILDING ENERGY PERFORMANCE STANDARDS

Clean Energy DC Omnibus Amendment Act of 2018 requires an establishment of a minimum threshold for energy performance that will be “no lower than” the local median ENERGY STAR score by property type (or equivalent metric).

BEPS 1:

Private buildings >50,000 sq. ft. and
DC-owned >10,000 sq. ft.

BEPS 2:

Private buildings >25,000 sq. ft. and
DC-owned >10,000 sq. ft.

BEPS 3:

Private buildings and
DC-owned >10,000 sq. ft.



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Source: [DC BEPS Benchmarking Basic Deck June2020](#)

BEPS – 2018 District Median ENERGY STAR Scores

Property Type	District Median ENERGY STAR Score	District Median Source EUI
College/University	N/A*	188.45
Hospital (General Medical & Surgical)	66	443.57
Hotel	49	187.83
K-12 School	36	146.9
Medical Office	63	180.48
Multifamily Housing	64	112.75
Office	68	161.44
Residence Hall/Dormitory	61	133.56
Retail Store	69	110.43
Senior Care Community	24	258.01
Supermarket/Grocery Store	62	469.43
Worship Facility	19	129.83



BEPS will be based on 2019 medians, which have not been set.

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Source: [DC Energy Benchmarking Disclosure](#)

Benchmarking Programs & Policies

Energy Star vs Typical Municipal Benchmarking Verification

Energy Star	Typical Municipal Benchmarking Verification
<ul style="list-style-type: none"> ✓ To verify data for properties applying to Energy Star Certified ✓ Site visit required and must confirm IAQ and comfort ✓ Verify all data in the verification checklist ✓ Compare buildings to the national population ✓ Recognition and option to display certification in public 	<ul style="list-style-type: none"> ✓ Verify benchmarked data for all buildings that must benchmark to comply with local regulations x Site visit may not be required ✓ Verify a subset of data in the verification checklist– Use types, use details that impact ES Score, GFA, energy use, water use ✓ Compare buildings with others of the same type in DC ✓ Public disclosure typically required

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Benchmarking Programs & Policies

What are DC's Verification Regulations?

As of September 24, 2020, “DOEE is close to publishing updated benchmarking rules that clarify the benchmarking reporting requirements, including the new size thresholds and data verification.”



What this means?

We do not know yet what rules and regulations will apply. The content presented today and included in this presentation is for general understanding of verifying energy benchmarking data. It is not intended to be used as guidance for compliance with DC regulations, since these are not yet finalized. Verifiers, building owners, and other stakeholders should refer to published regulations and guidelines when they are available.

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Benchmarking Programs & Policies

Source: [DC DOEE](#)



Role of the Verifier

- Confirm building adherence to benchmarking guidelines
- Verify completeness and correctness of data
 - Accurate whole property energy use data
 - Correctly reported Property Use Details
- Ensure the integrity of benchmarking data



Big Picture:

The District seeks to have Energy Star Scores and Energy Use Intensity calculations be as accurate as possible.

Verifying Energy Benchmarking Data

Role of the Verifier

Source: [Verifying the ENERGY STAR Certification Application](#)

Verification Steps - Overview

1. Review of Whole Property Details
2. Review of Property Use Details
3. Review of Energy Consumption
4. Correct Errors, Omissions, and Refinements
5. Backcheck Details
6. Document Verification

Verification Steps - Getting Started

1. Connect with the Property Data Administrator on Portfolio Manager.
2. The Property Data Administrator must share the property with you, typically as read-only.
3. Once the property is shared with you generate a data verification checklist.

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Verifying Benchmarking Data

portfoliomanager.energystar.gov/pm/reports

ENERGY STAR® PortfolioManager®

Welcome Baumann2020: Account Settings | Notifications 2 | ENERGY STAR Notifications | Contacts | Help | Sign Out

MyPortfolio | Sharing | **Reporting** | Recognition

Charts & Graphs



Weather Normalized Source EUI

How much total primary fuel would be required by my properties, under average weather conditions?

ENERGY STAR Performance Documents

- Statement of Energy Performance (SEP)
- Statement of Energy Design Intent (SEDI)
- Data Verification Checklist
- Progress & Goals Report
- ENERGY STAR Scorecard
- Water Scorecard

ENERGY STAR® Data Verification Checklist

86 Sample Property

Primary Function: Office
Gross Floor Area (ft²): 200,000
Built: 1950
For Year Ending: 04/30/2013
Date Generated: 06/28/2013

ENERGY STAR Score*

* The ENERGY STAR Score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and building characteristics.

Property & Contact Information

Property Address	Property Owner	Primary Contact
Sample Property 123 Main Street Arlington, Virginia 22200	Washington Commercial Managers 1 Washington Blvd Arlington, VA 22200	Jane Smith 1 Washington Blvd Arlington, VA 22200 j.smith@wcm.com
Property ID: 500023		

1. Review of Whole Property Characteristics

Basic Property Information

1) **Property Name:** Sample Property
Is this the official name of the property? Yes No
If "No," please specify: _____

2) **Primary Function:** Office
Is this an accurate description of the primary use of this property? Yes No

3) **Level:** _____ Yes No

<https://portfoliomanager.energystar.gov/pm/reports>

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Verifying Benchmarking Data

How to Verify

- Property records such as design documents
- Back-up documents from property administrators
- Interviews of property administrator, facility engineer, property manager, owner, etc.
- Utility bills
- Google Maps / Google Earth (or other online mapping tools)
- Real-estate listing/ property websites
- [Portfolio Manager FAQs and other resources](#)
- Site visits
 - Required for Energy Star Certifications
 - But are often not required for municipal benchmarking programs
 - Can be a good way to confirm property use data, energy sources, and meters onsite



Verifying Energy Benchmarking Data

Verifying Benchmarking Data

Basic Property Information

- Property Name for Registry
- Property Type
- Location
- Gross Floor Area
- Average Occupancy (%)
- Number of Buildings

Verification

- Medium priority; low to medium effort to verify
- Cross check against public records and property website
- Check in Google Maps / Google Earth
- Review during site visit



86

ENERGY STAR®
Score¹

Sample Property

Primary Function: Office
Gross Floor Area (ft²): 200,000
Built: 1980

For Year Ending: 04/30/2013
Date Generated: 05/28/2013

1. The ENERGY STAR score is a 1-to-100 assessment of a building's energy efficiency as compared with similar building nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address

Sample Property
123 Main Street
Arlington, Virginia 22030

Property ID: 5000023

Property Owner

Wellington Commercial Property
Managers
1 Washington Blvd
Arlington, VA 22030
() () () () () ()

Primary Contact

Jane Smith
1 Washington Blvd
Arlington, VA 22030
() () () () () ()
jsmith@wcbp.com

1. Review of Whole Property Characteristics

Basic Property Information

- 1) Property Name: Sample Property
Is this the official name of the property? Yes No
If "No", please specify: _____
- 2) Primary Function: Office
Is this an accurate description of the primary use of this property? Yes No
- 3) Location:
123 Main Street
Arlington, Virginia 22030
Is this correct and complete? Yes No
- 4) Gross Floor Area: 200,000 ft² Yes No

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Verifying Energy Benchmarking Data

Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Property Type

- EPA-Calculated Property Type
 - Determined by EPA based on property use details and shown on application
 - Represents property use that comprises >50% of gross floor area
 - If no single property use type is >50% of total floor area, type is listed as “Mixed Use Property” and is usually not eligible for certification
- Up to the verifier to verify that the selected property uses are correct and in line with the Portfolio Manager definitions
 - Example: K-12 Schools must have more than 75% of students in Kindergarten or higher grade

U.S. Property Types, Definitions, and Use Details May 2020

Portfolio Manager has more than 80 Property Types to choose from. Property types are noted where they are eligible to receive a 1-100 ENERGY STAR Score in the U.S. Use Details required to receive an ENERGY STAR score are noted below, all other Use Details are optional.

Property Type	Property Definition	Use Details (Optional Use Details do NOT affect any metrics)
Adult Education	Adult Education refers to buildings used primarily for providing adult students with continuing education, workforce development, or professional development outside of the college or university setting. Gross Floor Area should include all space within the building(s), including classrooms, administrative spaces, conference rooms, kitchens used by staff, lobbies, cafeterias, auditoriums, stairways, atriums, elevator shafts, and storage areas.	Gross Floor Area Weekly Operating Hours Number of Workers on Main Shift Number of Computers
Ambulatory Surgical Center	Ambulatory Surgery Centers refers to health care facilities that provide same-day surgical care, including diagnostic and preventive procedures. Gross Floor Area should include all space within the building(s) including offices, operating and recovery rooms, waiting rooms, employee break rooms and kitchens, elevator shafts, stairways, mechanical rooms, and storage areas.	Gross Floor Area Weekly Operating Hours Number of Workers on Main Shift Number of Computers
Aquarium	Aquarium refers to buildings used to provide aquatic habitat primarily to live animals and which may include public or private viewing areas and educational programs. Gross Floor Area should include public and restricted areas such as visitor walkways, bank spaces, retail areas, restaurants, laboratories, classrooms, administrative/office space, mechanical rooms, storage areas, elevator shafts, and stairwells. Areas not in enclosed buildings, such as outdoor habitats, open-air theaters, walkways, and landscaped areas should not be included in the Gross Floor Area.	Gross Floor Area Weekly Operating Hours Number of Workers on Main Shift Number of Computers
Automobile Dealership	Automobile Dealership refers to buildings used for the sale of new or used cars and light trucks. Gross Floor Area should include all space within the building(s), including sales floors, offices, conference rooms, vehicle service centers, parts storage areas, waiting rooms, staff break rooms, hallways, and stairwells. Gross Floor Area should not include any exterior spaces such as vehicle parking areas.	Gross Floor Area Weekly Operating Hours Number of Workers on Main Shift Number of Computers
Bank Branch (U.S. Score and Certification)	Bank Branch refers to a commercial banking outlet that offers banking services to walk-in customers. Gross Floor Area should include all space within the building(s), including banking areas, vaults, lobbies, atriums, kitchens used by staff, conference rooms, storage areas, stairways, and elevator shafts.	Required for a Score: Gross Floor Area (Minimum 1,000 sq. ft.) Weekly Operating Hours (Minimum 20) Number of Workers on Main Shift (Minimum 10) Number of Computers (Minimum 1) Percent That Can Be Co-located Occupancy (Minimum 65% for certification) Optional: Floors That Can Be Heated

Pro Tip:

Refer to these Property Use Type Detail Resources on Portfolio Manager:

- [Types, Definitions, and Details](#)
- [Data Collection Worksheet](#)

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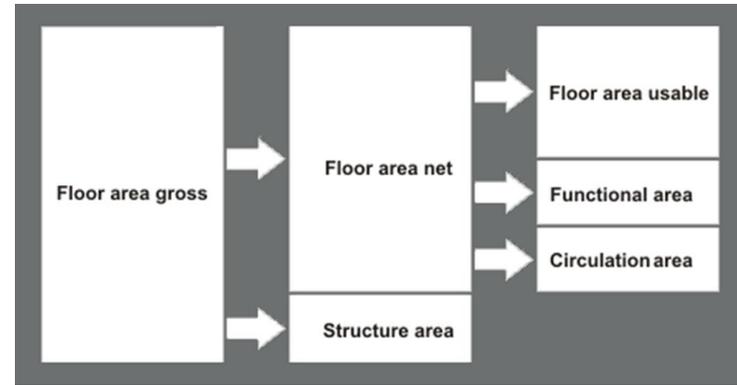
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Gross Floor Area

- Gross Floor Area (GFA) is the size of the building as measured from the principal exterior walls
- Includes: mechanical space, storage rooms, lobbies
- Does not include: space in between floors, balconies, exterior loading docks

Verification

- High priority; medium to high effort to verify
- Cross check against drawings and floor plans; area calculations provide by owner / owner representative
- Check in Google Maps / Google Earth



Pro Tips:

- Gross Floor Area \neq rentable or leasable floor area; this under counts GFA
- Areas in DC tax records may be off by as much as 30%; cross check areas with building floor plans or Google Earth measurements.

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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Gross Floor Area - Parking

- “Property GFA” covers the entire property. If separately metered, parking should be excluded from this area
- “Use Total GFA” is the sum of the GFA for all property uses, except for parking uses.

Verification

- Medium priority; low to medium effort to verify
- Cross check against drawings; review with owner / owner representative
- Check meters
- Verify that the parking GFA is not included in Property GFA

Basic Information

Construction Status:
Existing property that is one single building

Property GFA - Self-Reported:
130,000 Sq. Ft.

Occupancy:
80%

[Edit](#)

Name	Property Use Type	Gross Floor Area	Action
▶ Office Use	Office	123,000 ft²	I want to... ▼
▶ Parking Use	Parking	50,000 ft²	I want to... ▼
▶ Data Center Use	Data Center	7,000 ft²	I want to... ▼
Property GFA (Buildings):		130,000 (used to calculate EU)	
Property GFA (Parking):		50,000	

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Source: [Verifying the ENERGY STAR Certification Application](#)

Average Occupancy (%)

- If occupancy level fluctuates, calculate average occupancy over the 12-month application period
- Office properties with vacant space should create a separate Property Use with appropriate square footage, and zero values for workers, hours, and computers



Pro Tip:

Occupancy does not affect your score or any of your metrics, but it could affect your ability to receive ENERGY STAR certification because there are minimum occupancy requirements for certification for some property types. Check it anyway, especially in cases where there are vacant areas.

Verification

- Medium priority; low to medium effort to verify
- Statements of vacant vs occupied spaces; property administrator's calculations for occupancy
- Review during site visit

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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Property Configuration

- Most Property Types must apply for certification as a **single structure**
 - A "single structure" is a building where all of its parts share an actual, physical connection that is complete and indivisible. In other words, two buildings must share *functional* space that cannot be divided among the buildings (such as underground parking, an atrium, or a lobby) to be considered a single structure.
- Certain Property Types must apply for certification as a **campus**: Hospital, Hotel, K-12 School, Multifamily Housing, and Senior Care Community

Verification

- Medium to high priority; low to medium effort to verify
- Cross check against floor plans and property website
- Check in Google Maps / Google Earth
- Review during site visit

Pro Tip:

DC DOEE is developing specific approaches to benchmarking DC's college campuses. Contact the DOEE Benchmarking Team for more information.

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Source: [Verifying the ENERGY STAR Certification Application](#)

Property Use Details

- Verify ALL Values Used to Calculate the 1-100 Score
- Selected Examples
 - Weekly Operating Hours
 - Vacant Space
 - Data Center Inputs
 - Retail Stores
 - Parking

Verification

- High priority; medium to high effort to verify
- Statements, explanations, and supporting documents from the property administrator
- Check that default values have not been used
- Review during site visit

Pro Tips:

- Use the Portfolio Manger [Data Collection Worksheet](#) to identify the values that are used to impact the 1-100 score.
- Also, note that the items marked with a star in the Data Verification Checklist are used to calculate the Energy Star Score.

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Weekly Operating Hours

- Number of hours that the majority of building occupants are in the building
 - For buildings open to the public (Retail Stores, Bank Branches, etc.), weekly operating hours should reflect only hours when business is open to the public
- Does not include HVAC start up/shut down time or time that only maintenance and security staff are present
- Hours designated on tenant leases are an acceptable alternative if occupied hours are not tracked, provided it can be verified that those hours line up with when majority of workers are present



Pro Tip:

If a portion of the property has Weekly Hours that differ significantly for the same Property Type, create a separate property use. e.g. if an office tenant, like a law firm, has longer operating hours than the other tenants, set it up as a separate property use.

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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Vacant space

Only applies to Offices and Property Types using the Office model (Bank Branch, Courthouse, and Financial Office)

- **Specific Use Details** – Vacant space is represented by a separate use with:
 - Zero Workers
 - Zero Hours
 - Zero Computers

Verification

- Medium priority; low to medium effort to verify
- Statements and records of vacant vs occupied spaces from property administrator
- Review during site visit



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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Data Centers

- The “Data Center” Property Use is intended for sophisticated computing and server functions which include:
 - High density computing equipment (such as server racks used for data storage and processing, typically greater than 75kW of demand)
 - Dedicated cooling systems
 - Uninterruptible power supplies (UPS)
 - Raised floors
- It is not intended for:
 - Server closets
 - Computer training areas
 - Telecom closets
 - Print/copy rooms



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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

IT Energy Meter Configuration

- **IT energy must be metered from the output of a UPS**; Two exceptions to this rule where you can provide the IT energy metered at the input to the PDU:
 - If no UPS is present
 - If the UPS supports non-IT loads that are GREATER than 10% of its load (e.g., the HVAC is on the UPS meter)
- If IT energy cannot be metered, as of 8/26/2018 Data Center Energy Estimates are available.



Verification

- Medium priority; low to medium effort to verify
- Floor plans and reference documents from property administrator
- Energy meter data / information provided
- Review during site visit

For more detailed information on Data Centers, visit
<http://www.energystar.gov/datacenters>

Pro Tip:

If a property has a true data center, including it is a “Data Center” Property Use can improve a building’s ES score.

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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Retail Stores

- Retail Store definition **only applies** to each individual store that **is at least 5,000 sq ft**, sells non-food consumer goods, and has an exterior entrance to the public
- Common benchmarking errors
 - Classification errors - Stand alone properties like coffee shops, dry cleaners and key repair shops should be classified as “restaurant” or “services”
 - Unnecessarily breaking out space – if an office building includes a small gift shop on the first floor, benchmark the entire property as Office

Verification

- Medium priority; low to medium effort to verify
- Building floor plans; Google Maps/ Street View
- Review during site visit



Pro Tip:

If your retail use is part of a larger property and it is less than 5,000 sq ft, then breaking it out as a separate property use type will NOT affect any of your metrics.

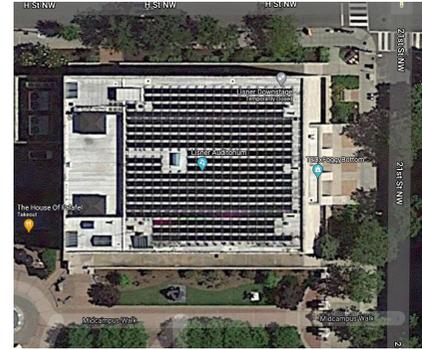
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Verifying Benchmarking Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Verify Energy Consumption Data

- List of Associated Meters
- List of Additional Meters
- Total Energy Use
- Additional Fuels
- On-Site Solar and Wind Energy



Verification

- High priority; low to high effort to verify
- Statements of energy use by property administrator
- Review of utility bills
- Is energy use extremely low or extremely high?
- Review during site visit



Verifying Energy Benchmarking Data

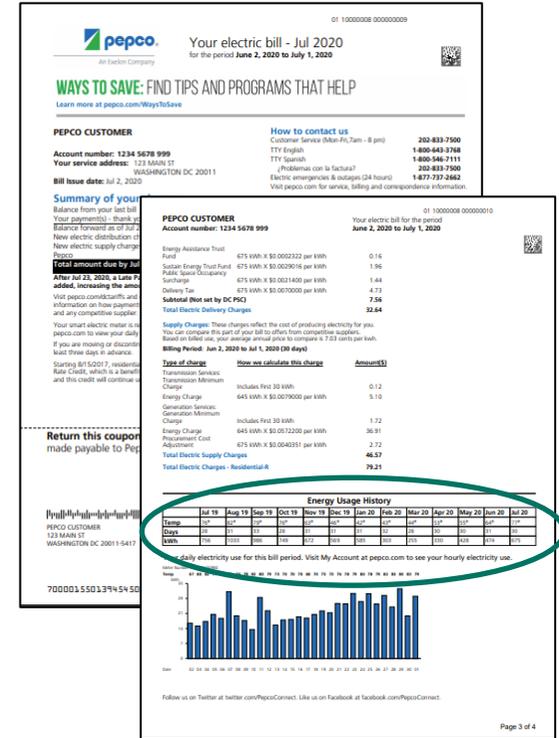
Energy Consumption Data

Energy Data Inputs

- The verifier must verify that the energy use for all energy meters associated with the property have been included with the correct consumption amount and units (kWh, therms, gallons, etc.).
- It is recommended that the verifier check a sampling of utility bills from the application period.

Pro Tip:

You only need a copy of the December electric bill to check the energy use for the whole year. The bill has a 13-month summary table that can be used to verify/ check entries in PM.



Verifying Energy Benchmarking Data

Energy Consumption Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Aggregate Meter Data

- If a property has 5 or more electric or 5 or more natural gas user accounts, they can receive aggregated whole building consumption data from Pepco and/or Washington Gas. To protect the confidentiality of individual tenant electricity use, this monthly data will be provided in aggregate form for the entire building.
- Aggregate whole building data can be automatically uploaded to properties in [Portfolio Manager](#)[®].
 - See Pepco's [Resource Advisor](#) tool for electric
 - See Washington Gas's [Utilli](#) tool for natural gas



Pro Tip:

If a building has aggregate meter data reported, make sure that the number of meters is equal to or greater than the number of apartments, condos, etc. that are in the building.

Verifying Energy Benchmarking Data

Energy Consumption Data

Source: [DC DOE](#)

Verify List of Additional (Non-Associated) Meters (if applicable)

- “Additional/Non-Associated meters” are meters that have been entered in Portfolio Manager, but are not included in the total building energy use.
- The verifier must verify that these are submeters or other ancillary meters, and that they should not be included in the property’s total energy use.
- Not all applications will have these.

Summary of Additional Meters

None of the following meters are associated with the property meaning that they are not added together to account for the total energy use of the property.

Meter Name	Fuel Type	Start Date	End Date	Associated With:
Electric Grid Meter # 2	Electric - Grid	01/01/2000	In Use	None
Electric Solar Meter	Electric - Solar	01/01/2015	In Use	None
Uninterruptible Power Supply (UPS) Output Meter	Uninterruptible Power Supply (UPS) Output Meter	01/01/2015	In Use	None
Electric Solar Meter	Electric - Solar	01/01/2018	In Use	None

Sub (or Ancillary) Meter Energy Use

Yes No

Are the meters in this list all sub-meters or other ancillary meters that do not need to be added to the total energy for the reporting period of this application?

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Energy Consumption Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Verify Total Energy Use

- The verifier should verify that the meters listed in the application account for all energy used at the property.
- If there are Retail or Restaurant Property Uses that have separate meters, these meters should also be included in the application, unless they are excluded.

Pro Tips:

- If a building has an emergency back-up generator, check that the generator fuel is accounted for.
- Check if the building supplies hot water, steam, or chilled water to another building or it receives hot water, steam, or chilled water from another building.
- Confirm that any onsite, renewable energy sources are account for.

Verifying Energy Benchmarking Data

Energy Consumption Data

Source: [Verifying the ENERGY STAR Certification Application](#)

Pay Attention to These Details

- Are default values used?
- Have the number of workers on main-shift or computers been updated recently?
- Are use types correctly selected?
- Are bedrooms properly counted in multifamily properties?
- Has the owner run the Data Quality Checker in Portfolio Manager?
- Are any errors or alerts showing up in Portfolio Manager?
- Do excluded property uses meet all criteria? Are excluded property-types' combined total GFA less than 10% of the building's GFA?
- Are all energy sources accounted for?
- Are energy data units properly selected?

Data Quality Checker

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



Verifying Energy Benchmarking Data

Reviewing Your Work

Source: [Verifying the ENERGY STAR Certification Application](#)

Have Property Owner Correct any Errors

- If the verifier finds errors in the benchmark data, **the property owner** should make corrections **in Portfolio Manager**
- The Verifier should
 - Backcheck updates and corrections
 - Regenerate the data verification checklist
 - Mark the portions of the checklist that are verified
 - Sign-off the checklist and provide to property owner
- The property owner should
 - Retain the verified checklist for three years
 - Re-verify their benchmarking data in three years



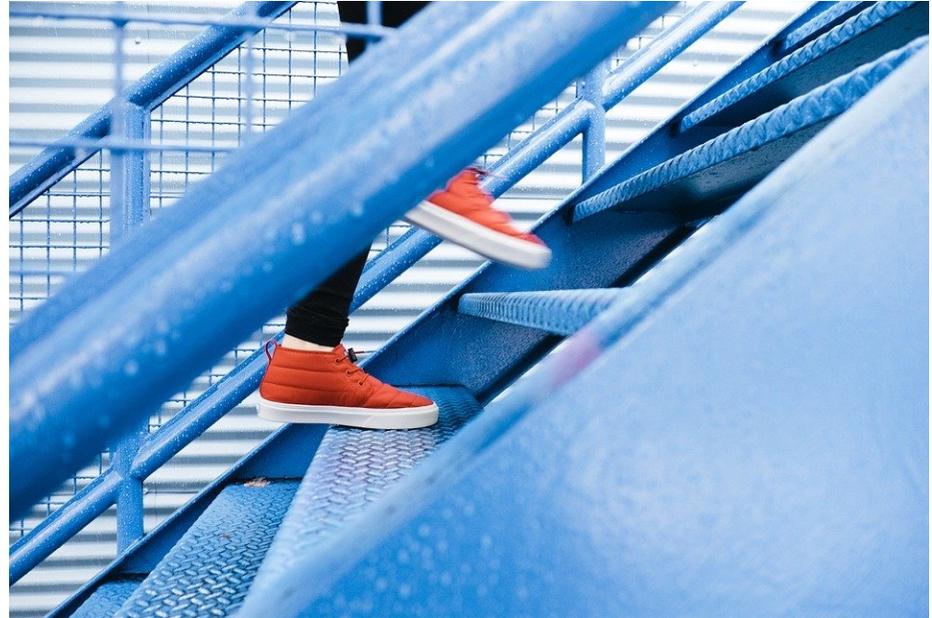
Verifying Energy Benchmarking Data

Correct Errors & Document Verification

Source: [Verifying the ENERGY STAR Certification Application](#)

Verification Steps - Overview

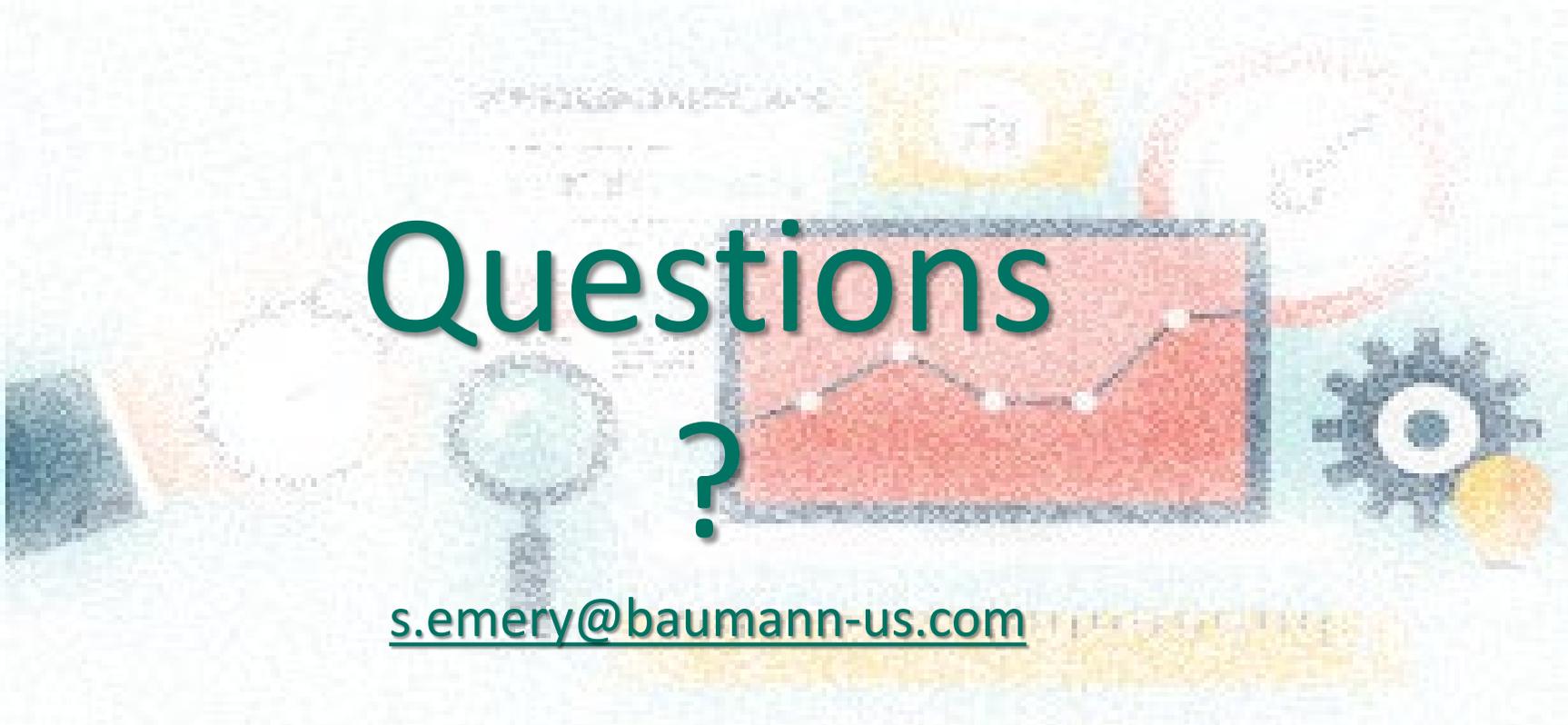
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4. Correct Errors, Omissions, and Refinements
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Verifying Energy Benchmarking Data

Verification Steps - Recap

Questions



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Verifying Building Energy Benchmarking Data

Scott Emery, September 29, 2020

