

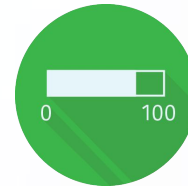
# What is ENERGY STAR® Portfolio Manager®?



Assess energy, water and waste/materials consumption



Track changes over time



1-100 ENERGY STAR score (available for many building types)



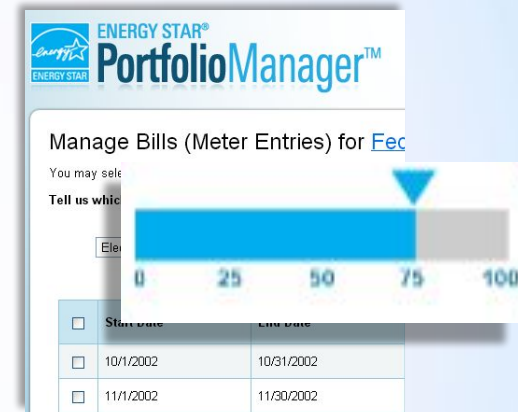
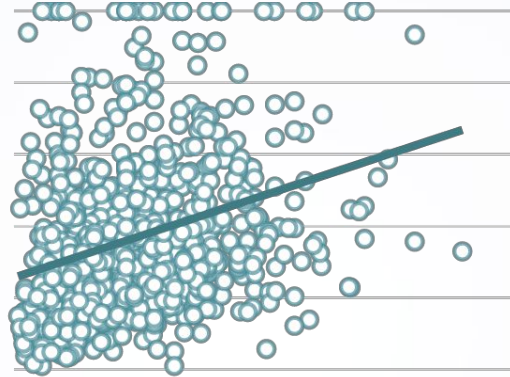
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[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)

# What was updated in ENERGY STAR Portfolio Manager?

- On **August 26, 2018**, EPA released updated metrics to the tool as part of its standard process to keep ENERGY STAR metrics as current as possible:
  - **1-100 ENERGY STAR score models for U.S buildings** (based on CBECS 2012)
    - Bank branches
    - Courthouses
    - Financial offices
    - Hotels
    - Houses of worship
    - K-12 schools
    - Offices
    - Retail, including retail store and warehouse club/supercenter
    - Supermarkets
    - Warehouses, including refrigerated, non-refrigerated, and distribution centers
  - National source energy factor
  - Data center benchmarking options

# EPA's 1 – 100 ENERGY STAR scores are based on market data

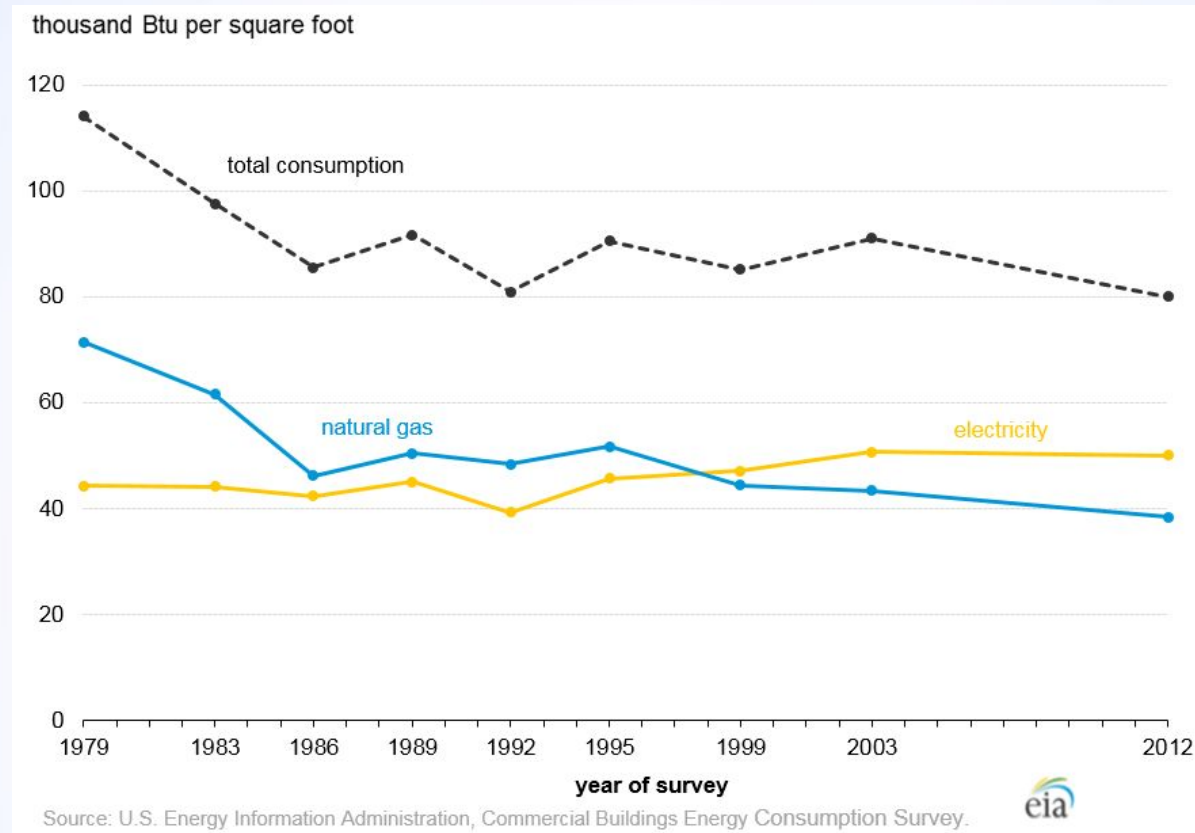


**Nationally representative survey**  
- CBECS gathers data on building characteristics and energy use from thousands of buildings across the U.S.

EPA creates a **statistical model** that correlates the energy data of the property use details to identify the key drivers of energy use, accounting for weather variations

**Compares the actual energy data for a building to the modeled estimate** to determine where the building ranks relative to its peers on a 1-100 scale

# Overall trend in U.S. building energy use (CBECS)



*Because average energy and grid performance is improving, the ENERGY STAR scores and performance metrics of individual buildings, on average, decreased.*

# How did this impact historical scores?

- When EPA updated the methodology, the new calculations were applied to **all time periods**.
- This enables you to continue to compare performance over time.
  - Even if your scores decreased, you'll still see your improvement between the baseline and the current periods
  - You're still able to analyze differences that are a result of your own activities, not EPA's methodology

Metrics Summary			
Metric	Dec 2014 (Energy Baseline)	Mar 2017 (Energy Current)	Change
ENERGY STAR Score (1-100)	39	48	9.00 (23.10%)
Source EUI (kBtu/ft <sup>2</sup> )	294.9	264.4	-30.50 (-10.30%)
Site EUI (kBtu/ft <sup>2</sup> )	118.7	95.8	-22.90 (-19.30%)
Energy Cost (\$)	581,581.78	540,588.06	-40,993.72 (-7.00%)
Total GHG Emissions Intensity (kgCO <sub>2</sub> e/ft <sup>2</sup> )	11.3	9.9	-1.40 (-12.40%)
Water Use (All Water Sources) (kgal)	3,373.9	3,228.1	-145.80 (-4.30%)
Total Waste (Disposed and Diverted) (Tons)	879.99	836.75	-43.24 (-4.90%)

# How do updated metrics in Portfolio Manager and Target Finder affect commercial new construction projects?

- The updates affected calculations for the following metrics:
  - Energy use associated with your selected design target
  - ENERGY STAR score calculated for your estimated annual site energy
  - Source energy use calculated for your estimated annual site energy
  - Estimated GHG emissions
- The update did **not** change the metrics for the following:
  - Estimated site energy you entered
  - Design target you selected
  - Energy cost data (unless you chose the default values)
- All metrics have been recalculated and applied retroactively to design projects stored in Portfolio Manager
- The updates may have affected eligibility for Designed to Earn the ENERGY STAR Recognition on new projects
- For more details, see FAQ [How will the metrics update affect design projects?](#)

# What else changed in August?

## Data center energy estimates

- New option: Estimated data center energy use
  - Designed for smaller data centers, within another property type, and where it is not practical to measure IT Energy
  - If IT energy is not metered, users will have the chance to apply estimates generated by Portfolio Manager
  - Estimate capped at 10% of the building area

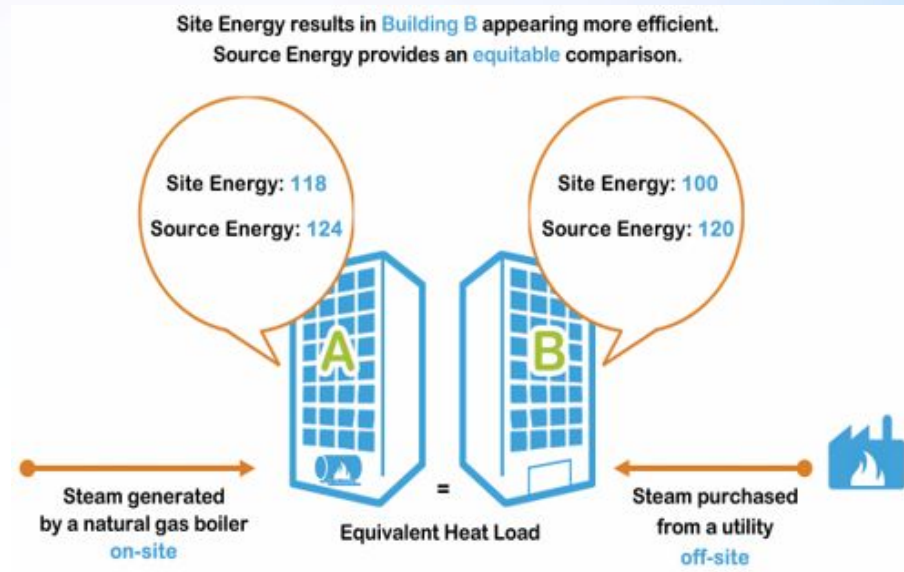
## New use details in Portfolio Manager

- Warehouse
  - Percentage of gross floor area used for cold storage (**New in August**)
  - Percent that can be cooled and percent that can be heated (**New in August for refrigerated warehouses**)
- Worship Facilities
  - Gross floor area used for food preparation (**New in August**)
  - Percent that can be cooled and percent that can be heated (**New in August**)
- K-12 Schools
  - Number of workers on main shift
    - Existed previously, but now required
- Supermarket
  - Number of open or closed refrigeration/freezer units
    - Existed previously, but now required

# Any other changes in August?

## Update to Source Energy Factor

- Source energy traces the heat and electricity requirements of the building back to the raw fuel input
  - Level playing field for different fuel types
- Portfolio Manager delivers several key performance indicators in source energy:
  - Weather normalized source EUI
  - ENERGY STAR score
- New approach
  - Offsite renewables lower the national average electric source factor. Electricity generated from renewable energy sources has lower raw fuel inputs than electricity generated from fossil fuels.
- Updated electric source factor released Aug 26, 2018
  - Dropped from 3.1 to 2.8 (more efficient grid)
  - Impacted ENERGY STAR score & all source energy metrics
  - ENERGY STAR score increased or decreased depending on a building's fuel-mix ratio
  - Changes based on this update alone were small in magnitude comparatively





# Learn more

[energystar.gov/scoreupdates](https://energystar.gov/scoreupdates)

- Summary of changes
- Links to FAQs
- Links to register for an EPA informational webinar on 8/29 or 9/5
- Slides from previous webinars
  - Embedded video of recorded update webinars
  - Links to sector-specific update webinars
- Communications toolkit
  - Fact sheet and template training slides