2018 UPDATES TO ENERGY STAR® BUILDING METRICS

The simple choice for energy efficiency.

ENERGY STAR

On August 26, 2018, EPA updated performance metrics for U.S. buildings in ENERGY STAR Portfolio Manager® based on the most recent market data available. If you benchmark one or more properties in Portfolio Manager, your buildings' 1–100 ENERGY STAR scores and other source energy metrics were updated across all time periods to reflect the latest performance metrics. Note that none of these changes impacted Canadian buildings.

This update is part of EPA's standard process to keep ENERGY STAR metrics as current as possible, and reflective of current market performance.

How did this impact ENERGY STAR scores?

The 1-100 ENERGY STAR score compares your building's energy performance to that of similar buildings nationwide. Because the ENERGY STAR score is a comparison with the national building stock, and the national building stock has improved in efficiency over the past decade, the average ENERGY STAR score for most building types will have gone down after the model updates.

Before the update, EPA calculated average score changes by building type based on buildings benchmarked in Portfolio Manager, and we published those average changes to give our stakeholders some idea of what to expect. However, because your buildings may differ from the typical building used in our analysis, the change in your building's ENERGY STAR score will vary from the published average depending on its energy use, fuel mix, business activity, property type, and other variables.

Furthermore, by definition, roughly half of buildings of any type should have larger decreases than average, and half should have smaller decreases.

What else changed besides updates to 1-100 ENERGY STAR scores?

In addition to updates to 1-100 ENERGY STAR score models, there were two other changes included in the August 2018 metric updates:

1. **Data center estimates:** There is new option to use estimated energy use for data centers. This option is designed for smaller data centers, within another property type, and where it's not practical to measure IT energy use.

2. **Source energy factor**: The source energy factor helps level the playing field for different fuel types by tracing the energy requirements of the building back to the raw fuel input (coal, gas, steam, hydro, etc.). Based on the national average, the new national source electric factor is slightly lower. However, performance metrics may have increased or decreased depending on the building's fuel-mix ratio, though changes based on this update alone were comparatively small in magnitude.

Which property types were affected?

Because source energy metrics were updated, all buildings benchmarking in Portfolio Manager likely saw a change in at least some performance metrics. The following 1–100 ENERGY STAR score models were also updated:

- Bank branches
- Courthouses
- Financial offices
- Hotels
- Houses of worship
- K-12 schools
- Offices
- Retail, including retail store and wholesale club/ supercenter
- Supermarkets
- Warehouses, including refrigerated, non-refrigerated, and distribution centers

Note that design metrics in ENERGY STAR Target Finder were also refreshed.

EPA United States Environmental Protection Agency

GLOBAL FACILITY SOLUTIONS *Energy and Engineering Services*

2018 UPDATES TO ENERGY STAR® BUILDING METRICS

The simple choice for energy efficiency.

August 27, 2018

What is the new available market data?

For most types of commercial buildings, the 1–100 ENERGY STAR score is based on the Commercial Buildings Energy Consumption Survey, which is conducted every four years by the U.S. Department of Energy's Energy Information Administration.

The latest CBECS data became available in 2016 and is based on the results of the 2012 survey.

When did the changes take effect?

Updated metrics were implemented in Portfolio Manager on **August 26, 2018**.

What time periods were impacted?

When ENERGY STAR metrics were updated on August 26, 2018, the new calculations were applied across all time periods, which means your scores and metrics for all historical periods may have changed. By applying this update across all time periods, you'll continue to be able to analyze changes that are a result of your own activities, rather than changes in underlying market data. Unfortunately, EPA is not able to provide your pre-update scores or metrics for any individual buildings or portfolios.

Learn more at www.energystar.gov/scoreupdates

How Can Global Facility Solutions Help?

Global Facility Solutions (GFS) offers a host of services that are focused on reducing energy consumption within commercial buildings. GFS can help your Energy Star® score by providing:

- Review of Energy Star® input data and sensitivity analysis,
- Energy Audit of your facility to identify opportunities for reducing your energy consumption and boosting your score,
- Retro-commissioning services to evaluate, adjust and update operational sequences that impact energy consumption.
- Identification and implementation of energy saving retrofits and HVAC system updates. GFS can design and implement upgrades to DDC Controls, mechanical HVAC systems, lighting and lighting controls.

Learn more at http://www.gfsolutionsllc.com/

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 energystar.gov.

EPA United States Environmental Protection Agency

GLOBAL FACILITY SOLUTIONS
Energy and Engineering Services