

ASHRAE Technical FAQ

ID 105

Question Where can I find energy benchmark data to compare my commercial or institutional building?

- The ASHRAE AEDG on existing commercial buildings, Vol. 2, published 2011, [Energy Efficiency Guide for Existing Commercial Buildings: Technical Implementation](#) has the most current energy benchmarking data.
- Information can also be found in Chapter [A36](#), Energy Use and Management, of the [2015 ASHRAE Handbook – HVAC Applications](#), which references data from a 2003 DOE Commercial Building Energy Consumption Survey (CBECS). There is information on the energy consumed (not costs as it can vary over time, location, etc.) for a range of end uses. The data is partitioned by building size, use, equipment, geographical region, etc. These data are being updated to the 2012 survey data; energy consumption and expenditure data will be released in 2019. You can view the complete study at: www.eia.gov/consumption/commercial.
- ASHRAE worked with the US DOE on a Standard Benchmark Energy Utilization Index that presents simulated EUI results for 16 commercial building types and a range of climate zone for pre-1980 and post-1980 construction characteristics. Information is available at <http://cms.ashrae.biz/EUI>.

Answer

- Similar simulation results are presented as energy targets for existing commercial buildings in [ASHRAE Standard 100-2018, Energy Efficiency in Existing Buildings](#).
- The EPA's ENERGY STAR Portfolio Manager program presents measured EUI data for thousands of commercial buildings, also by building type and climate zone, for benchmark comparisons with buildings entered by users via the internet, <https://portfoliomanager.energystar.gov>.
- The DOE Building Performance Database (BPD), developed by Lawrence Berkeley National Laboratory at <http://energy.gov/eere/buildings/building-performance-database>, provides a large database of energy performance characteristics for commercial and residential buildings.
- ASHRAE's Building Energy Quotient Operational Rating, a voluntary labeling program that compares a building's annual metered energy use (EUI) to the median EUI by building type, is a useful benchmarking and rating tool. Details are at www.buildingenergyquotient.org.

[2015 ASHRAE Handbook – HVAC Applications](#), Chapter [A36](#)

ASHRAE
Pubs

[Energy Efficiency Guide for Existing Commercial Buildings](#)

[Energy Efficiency Guide for Existing Commercial Buildings: Technical Implementation](#)

[ASHRAE Standard 100-2018, Energy Efficiency in Existing Buildings.](#)

Topic
References Building energy use, benchmark, EUI, Energy Star, CBECS

	Cognizant ASHRAE Committees	Refer to Organization
1	<u>TC 7.6</u>	<u>US DOE</u>
2		<u>US EPA</u>
3		
4		
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