

Energy Use in Financial Offices

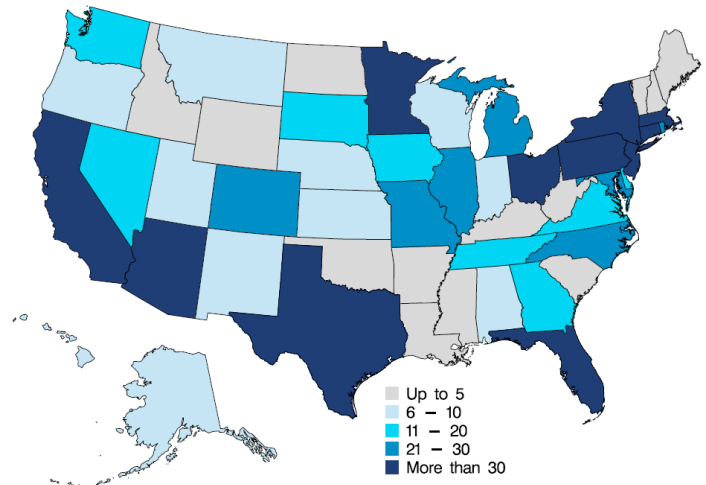
Financial Offices Using Portfolio Manager

- 1,242 Properties
- 342 Million ft²
- Average ENERGY STAR Score **59**

The U.S. Environmental Protection Agency's (EPA) ENERGY STAR Portfolio Manager is changing the way organizations track and manage energy. Because of this widespread market adoption, EPA has prepared the DataTrends series to examine benchmarking and trends in energy and water consumption in Portfolio Manager. To learn more, visit www.energystar.gov/DataTrends.

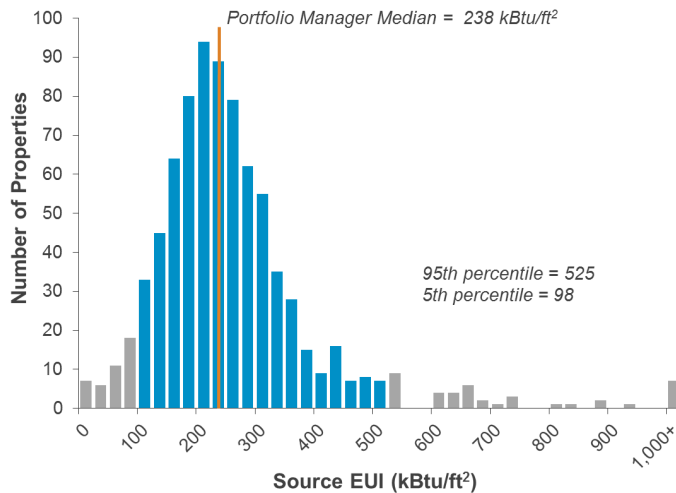
Benchmarking by State

Number of Financial Offices



What is a typical operating profile?

Energy use intensity (EUI) ranges from less than 100 to more than 1,000 kBtu/ft² across all financial offices, with those at the 95th percentile using 5 times the energy of those at the 5th percentile. The distribution has a negative skew, which means the most energy intensive properties are further away from the median than the most efficient. Properties may use more or less energy for many reasons, including variable equipment efficiency and energy management practices, as well as variations in climate and business activities.



The median financial office in Portfolio Manager is more than 128,000 square feet and operates 65 hours per week. But the typical property use patterns observed in Portfolio Manager vary just as much as energy. As you can see, there are financial offices of all shapes and sizes benchmarking in Portfolio Manager.

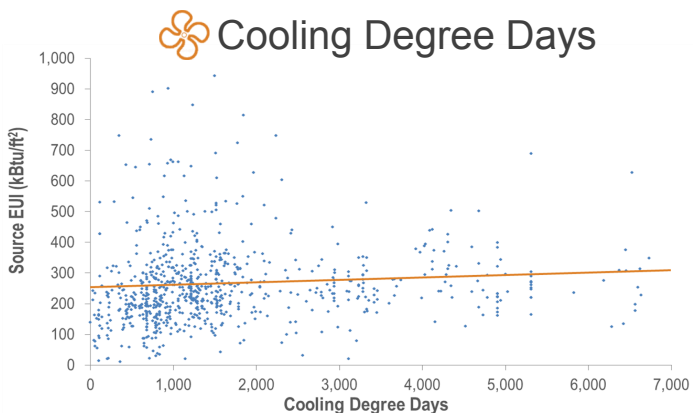
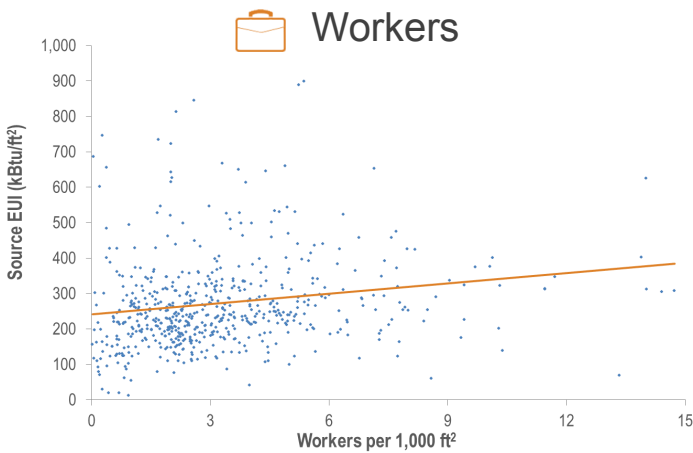
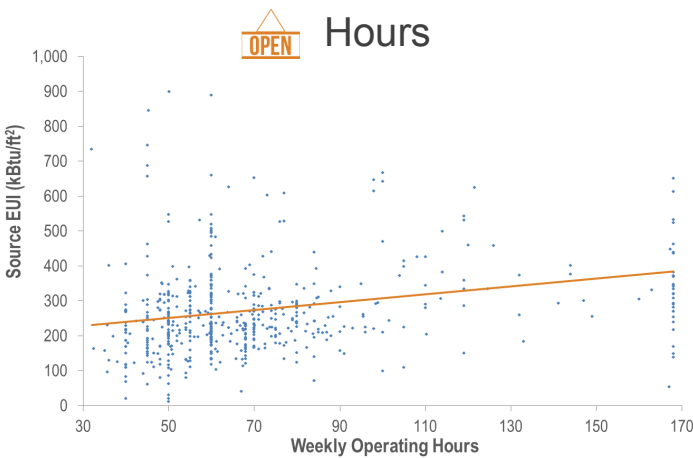


Property Characteristic	5th percentile	Median	95th percentile
Square Feet	10,000	128,550	1,034,547
Operating Hours	44	65	130
Workers per 1,000 ft ²	0.6	2.3	7.3
Computers per 1,000 ft ²	0.7	2.2	7.9
Heating Degree Days	80	4,788	7,437
Cooling Degree Days	233	1,210	4,906

What is Source Energy? Source energy is the amount of raw fuel required to operate your property. In addition to what you use on site, source energy includes losses from generation, transmission, and distribution of energy. Source energy enables the most complete and equitable energy assessment. Learn more at: www.energystar.gov/SourceEnergy.

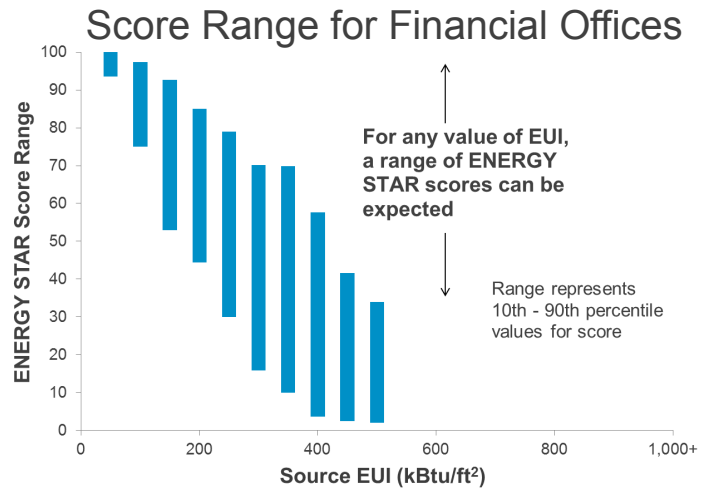
What characteristics affect energy use in financial offices?

Business activity and climate are often correlated with energy consumption. For example, financial offices that are open longer hours, have more workers per square foot, and/or experience more cooling degree days (CDD) use more energy, on average. The orange trend lines in the graphs below show the impact of each characteristic on energy use. The steeper the line, the bigger the impact. While these trends hold true on average, the blue dots demonstrate that for any given value of hours, workers, and CDD, a broad range in energy use is observed. Similar trends can be seen for other property characteristics such as computers and heating degree days.

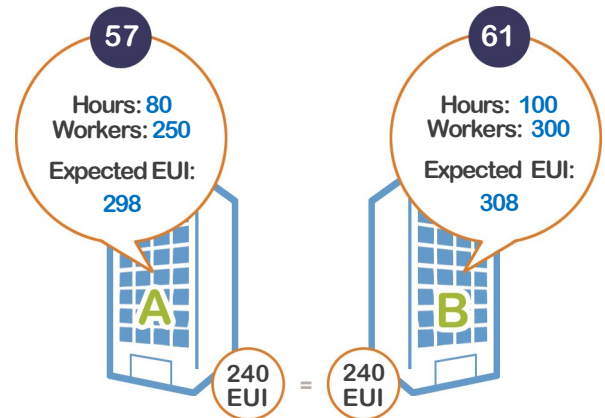


How does EPA's ENERGY STAR score vary with energy use in financial offices?

EPA's ENERGY STAR score normalizes for the effects of operation. While properties with lower EUI generally earn higher scores on the 1-100 scale, an individual property's result depends on its business activities. For any given EUI, a range of scores is possible.



Let's look at two financial offices, Financial Office A and Financial Office B. They have the same EUI of 240 kBtu per square foot, and are identical except that Financial Office B is open longer hours and has more computers per square foot. Because Financial Office B has more intensive activities, it is expected to have a higher EUI than Financial Office A, based on ENERGY STAR scoring models. Since Financial Office B is *expected* to use more energy, but *actually* uses the same energy, it earns a higher score.



Note: Total number and floor area of properties benchmarked reflects cumulative data through 2013. Analysis of energy use and operational characteristics includes 809 properties benchmarked in the most recent 5 years. The data is self reported and has been filtered to exclude outliers, incomplete records, and test facilities. Portfolio Manager is not a randomly selected sample and is not the basis of the ENERGY STAR score. To learn more, visit: www.energystar.gov/DataTrends.