

Abbreviated Electricity Benchmark Report, 2005-2013



Sustainability House
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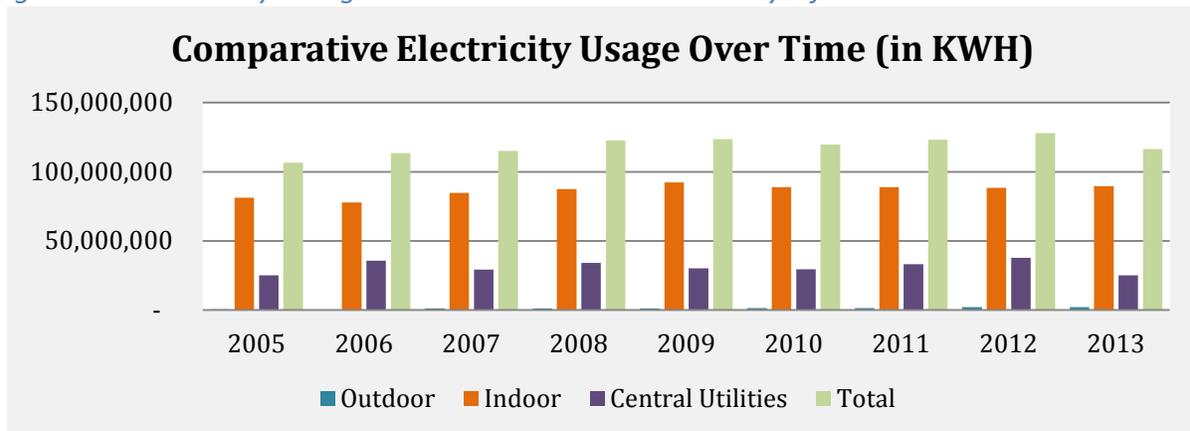
Project Statement

- Tracks and summarizes the use of electricity on the University of Arkansas campus beginning with the year 2005 and continuing through 2013.
- Goal of this analysis is for the Office for Sustainability to benchmark electricity use by category, see where efforts for conserving electricity are most needed, and to track the progress of these conservation initiatives over time.

Summary of Data

- The majority of the electricity was being used indoors, slightly less in heating and cooling, while the least, almost none comparatively, was being used for outdoors (Figure 1).
- Taking a closer look at indoor patterns, one can see that the electricity being used peaked in 2009 and has been fairly stagnant since (Figure 2). This peak and subsequent drop is explained by the implementation of the Energy Savings Performance Contracts in 2009.

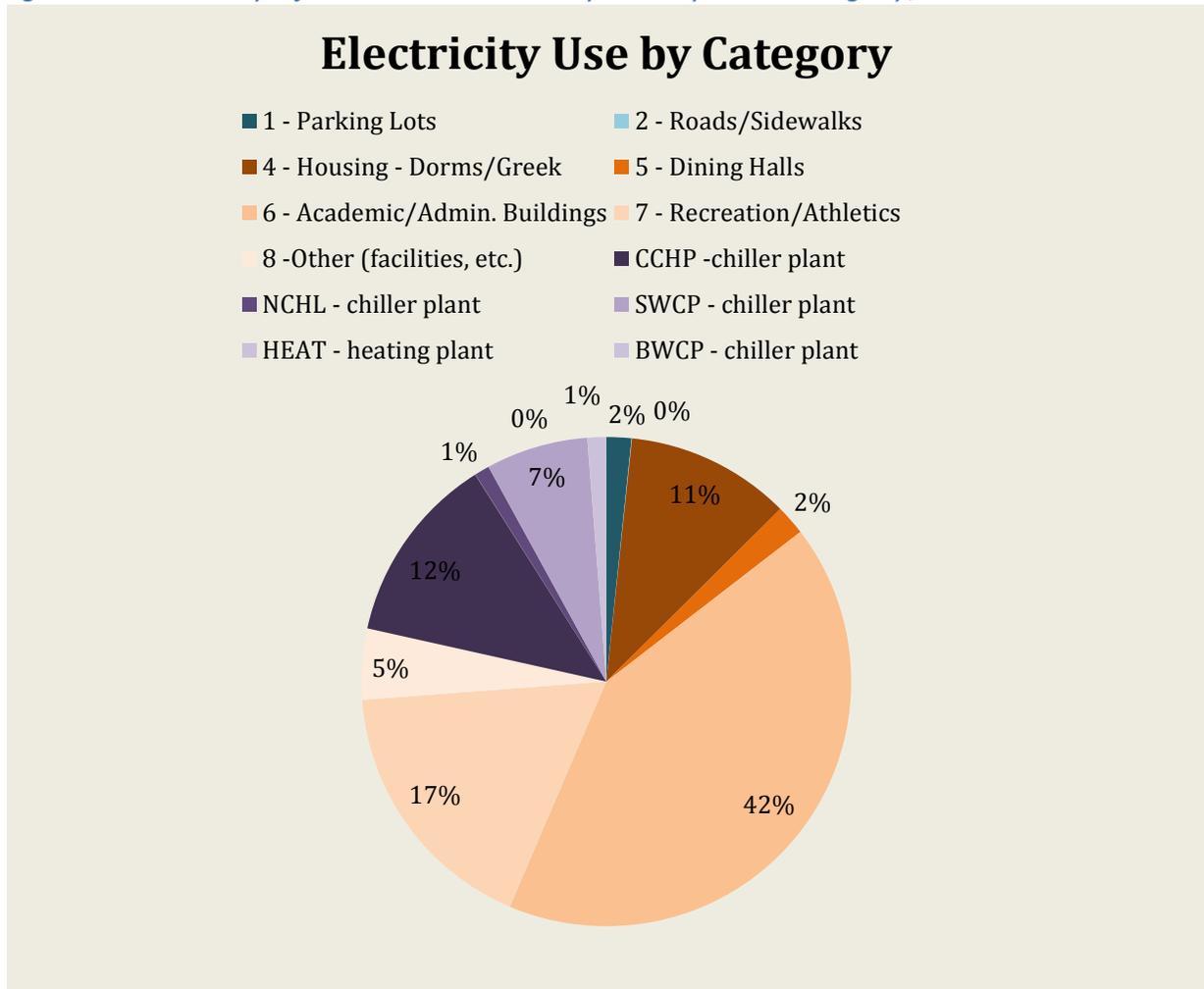
Figure 1. Electricity Usage over Time at the University of Arkansas



- Majority of the electricity used on campus, 77 percent, is indoors (Figure 3).
- The use of electricity in the academic buildings accounts for 54 percent of electricity used in all buildings and almost half, 42 percent, overall.
- Reducing this value by 1 percent saves 498,520 kWh of electricity, which equates to \$31,522.

- In regards to reducing electricity use on campus, efforts might best be focused on the athletic department, the second largest consumer of electricity on campus at 23 percent, and within the residence halls, the fourth largest consumer of electricity on campus at 14 percent (Figure 5).

Figure 5. University of Arkansas Electricity Use by Sub-Category, 2013



Conclusion

- Total annual electricity use at the University of Arkansas has been fairly consistent over the past 10 years, at approximately 120,000,000 kWh per year.
- In 2013, 77 percent of electricity was used indoors, of which 54 percent was used in the academic buildings (about 42 percent overall).
- There are many factors that may have contributed to the level of electricity use within all buildings in 2009, including various renovations throughout campus and implementation of the Energy Saving Performance Contract.
- The University of Arkansas currently pays \$0.069 per kilowatt hour; reducing electricity use by 10 percent could save \$750,539 annually.