

College Electricity Consumption Benchmarks

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THE QUESTIONNAIRE

SPENDING

1. What is the approximate total annual expenditure for electricity for your college? Per full-time enrolled student.
2. What is the college's current average cost (in cents) per kilowatt hour?
3. How much did the college spend on each of the following in the past full year for which you have statistics? Per full-time enrolled student.
 - A. Electricity
 - B. Oil
 - C. Gas
 - D. Water
4. As a best guess, how much has the college spent over the past three years on each of the following? Per full-time enrolled student.
 - A. Replacing single-pane with double-pane windows
 - B. Widening or broadening windows
 - C. Introducing skylights or atriums
 - D. Installing windows in places where there were none previously
 - E. Introducing occupancy sensors that automatically turn off and on lights when needed
5. Has the college audited its electricity bill within the past year?
6. Describe any measures the college has taken to negotiate for better electricity prices.

USAGE AND STATISTICS

7. How many separate buildings on campus do your electricity statistics cover?
8. How finely detailed is your college's electricity use data? Can data be obtained for particular buildings, or even sections of buildings? For what percentage of the campus buildings does the college have specific data? Have you made efforts in the past two years to gain more complete/specific statistics on electricity use on a per-building or per-section-of-building basis?
9. What was the college's total kilowatt hours of consumption of electricity in the 2009-10 academic year? Per full-time enrolled student.

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10. What was the college's total kilowatt hours of consumption of electricity in the 2010-11 academic year? Per full-time enrolled student.
11. What was the total kilowatt hours used by the student residence halls in the past year? Per full-time enrolled student.

INCREASING ENERGY EFFICIENCY AND REDUCING CONSUMPTION

12. Has the college made any effort to replace lighting with higher efficiency bulbs that consume less electricity?
13. Approximately how much did the college spend in the past year on new light bulbs designed to reduce energy consumption? Per full-time enrolled student.
14. Does the college have any plans to reduce energy consumption of lighting systems by introducing new systems, bulbs, or monitoring systems? If so, what are these plans?
15. What temperature, in degrees Fahrenheit, does the college strive to keep in main college buildings in spring/summer?
16. What temperature, in degrees Fahrenheit, does the college strive to keep in main college buildings in fall/winter?
17. Has the college changed the indoor temperature that it strives to maintain in college buildings as a way to save energy? If so, how has it changed? If not, does the college plan to make such changes?
18. Describe what the college has done to increase efficiency and reduce the energy consumption of its air conditioning system. Mention new equipment, use of advanced controls or sensors, thermal water cooling units, reduction of CFS refrigerants and/or other strategies.
19. How much has the college spent over the past three years on new air conditioners and air conditioning technology? Per full-time enrolled student.
20. Has the college done any of the following to increase its energy-saving properties?
 - A. Replaced or altered wall insulation
 - B. Replaced or altered ceiling insulation
 - C. Repainted or re-glazed any surface area
 - D. Replaced or altered carpeting
21. How much has your college spent over the past three years on each of the following?
 - A. Changing furnace or boiler insulation

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- B. Altering or replacing the furnace or boiler to make it more energy efficient
 - C. Altering or replacing water fixtures in bathrooms, kitchens, water fountains, etc.
 - D. Making it easier to bicycle to the library by adding bicycle racks or other aids for bicyclists
 - E. Installing sensors on vending machines so that they use energy only during hours of service
22. What measures has the college taken to ensure that use of air conditioning, lighting, and other electricity-consuming technology is minimized at night or in other low-use periods?
23. What is the percentage change in electricity use on campus during spring break?
24. Has the college ever conducted workshops or seminars for employees to help them minimize electricity consumption?
25. If the college has conducted seminars or made other efforts to coach employees or students to reduce electricity consumption, please describe these efforts, with a focus on the most effective ones.

FORMS OF ENERGY

26. Does your college currently use solar energy generated by your institution in any form for heating?
27. Does your college currently use solar energy generated by your institution in any form for augmentation of electrical supply?
28. Does the college have plans to install any of the following forms of energy generation within the next three years?
- A. Solar energy
 - B. Geothermal energy
 - C. Wind energy
 - D. Biomass energy generation through fuel cells
29. If the college has installed or plans to install a geothermal energy system within the next three years, please briefly describe your experience to our readers. How much of your library's energy needs do you expect it to satisfy? How much was your initial investment? How much will you likely save given today's high heating oil costs?
30. If the college has installed or plans to install a wind energy system within the next three years, please briefly describe your experience to our readers. How much of your library's energy needs do you expect it to satisfy? How much was your initial investment? How much will you likely save given today's high heating oil costs?

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VEHICLES AND TRANSPORTATION

31. How many cars, trucks, and other vehicles does the college own or lease?
32. How many cars, trucks, and other vehicles does the college own or lease? Per full-time enrolled student.
33. Has the college purchased radial tires to increase gas mileage of its vehicles?
34. Has the college closely monitored levels of tire inflation to increase gas mileage of its vehicles?
35. Has the college reduced the weight of its vehicles by removing all non-essentials in order to increase fuel efficiency or minimize carbon dioxide output?
36. Has the college introduced or fostered car-pooling transit plans for employees in order to increase fuel efficiency or minimize carbon dioxide output?
37. Has the college altered the octane level of the gas consumed to maximize mileage per gallon?
38. Has the college checked the air filters of its vehicles in order to increase fuel efficiency or minimize carbon dioxide output?
39. Has the college switched to or increased the use of diesel fuels in its vehicles in order to increase fuel efficiency or minimize carbon dioxide output?
40. Has the college switched to or increased the use of biofuels in its vehicles in order to increase fuel efficiency or minimize carbon dioxide output?
41. Has the college combined trips and errands in order to reduce gas consumption and minimize the carbon dioxide output of its vehicles?
42. Has the college purchased hybrid or non-conventionally fueled vehicles in order to increase the fuel efficiency or minimize the carbon dioxide output of its vehicles?

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SURVEY PARTICIPANTS

Alfred State College
Babson College
Baylor Facility Services
Clarkson University
Cotter College
Goshen College
Grande Prairie Regional College
Kankakee Community College
Meredith College
The New School
Olin College of Engineering
Ouachita Baptist University
Pomona College
University of California, Santa Barbara
University of Dayton
University of North Texas
Vancouver Island University

CHARACTERISTICS OF THE SAMPLE

Enrollment Category

	Less than 2,500 students	2,500 to 10,000 students	More than 10,000 students
	47.06%	29.41%	23.53%

Type of College

	Community college	4-year college	MA/PhD- granting college	Research university
	11.76%	52.94%	11.76%	23.53%