

Energy Saver News

with campus energy information and tips to help keep KU energy-efficient

Welcome to Energy Saver News for the University of Kansas

Chevron Energy Solutions (CES) issues this quarterly newsletter to help the University share information about energy consumption, ideas on how to save energy, and what the University is doing to save energy.

DID YOU KNOW?

THE UNITED STATES HAS APPROXIMATELY 5% OF THE WORLD'S POPULATION YET ACCOUNTS FOR APPROXIMATELY 25% OF THE WORLD'S ENERGY USAGE.

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Meet Matt Petrie, KU Energy Monitor

Our featured buildings in this issue of *Energy Saver News* are Learned Hall, Lindley Hall and Snow Hall. Matt Petrie, Energy Monitor for the three buildings, is helping KU spread the word about energy conservation, both on and off campus.

Matt states, "With new research areas, new computer labs, and new shop projects coming together all the time, Learned Hall is a building that is constantly evolving. Learned is a good place to seek out opportunities for energy efficiency. In my role as Energy Monitor I work with people here to turn off unnecessary lights among other things to reduce energy consumption."



"I've been monitoring Lindley since Spring 2006. CES and KU expect this building to use less energy as education and awareness efforts continue."

"While monitoring conditions at Snow Hall, I have worked to raise awareness of how individual actions can affect the well-being of everyone. We're focusing on reducing energy use when consumption is avoidable, such as keeping windows closed at night and turning off computers to keep cooling requirements down."

Below are the usage stats for kilowatt-hours (units of electricity) for the three buildings in **FY06** and after Matt's assignment as a KU Energy Monitor in **FY07**.

	Electric – kWh	
	FY06	FY07
Learned Hall	3,954,050	4,119,580
Lindley Hall	1,261,000	1,217,210
Snow Hall	2,188,660	1,945,530

ENERGY QUIZ: Replacing a single 100W incandescent light bulb with a 25W fluorescent light bulb (which produces at least as much light) would save enough energy dollars in a year to buy which holiday presents? **(a)** two music CDs; **(b)** two holiday season cookies; **(c)** two laptop computers; **(d)** four sweatshirts at the bookstore. (See answer on page 2.)



This newsletter is written and published by Chevron Energy Solutions for the benefit of the KU students, staff and faculty. Chevron Energy Solutions provides energy services to the University of Kansas.



Featured ECM: New Fluorescent Fixtures and Lighting Controls – Robinson Center



BEFORE lighting upgrade



AFTER lighting upgrade

In each issue of the *Energy Saver News* we focus on an Energy Conservation Measure or ECM. This issue highlights the new lighting and lighting controls in the Robinson Center.

The Robinson Center is among the top five KU buildings with the highest energy usage. Dr. Bernie Kish, the building director, contacted Chevron Energy Solutions (CES) to learn what he could do to reduce his building's energy consumption. CES noted two areas that could be improved — the basketball courts and the racquetball courts. The original light fixtures in these courts were slow start and high wattage. Slow-start fixtures are generally left on for longer periods of time, resulting in unnecessary energy consumption.

In both cases, CES recommended replacing the slow-start fixtures with instant-start fluorescent fixtures, which allow the addition of automatic

controls. Each of the four basketball courts had 14, high-pressure sodium (yellow light) fixtures. CES replaced these with 2x4 six-lamp fluorescent fixtures. The wattage was reduced from 295 watts to 222 watts. However, the bulk of the savings comes not from the wattage reduction but from the ability to shut off the lights. CES installed four motion sensors per court, which shut off the lights automatically after 18 minutes of no motion. As occupants enter a court, only the lights serving that court will come on, while the other three courts will remain dark.

The nine racquetball courts each had six 300-watt, slow-start light fixtures. These were replaced with instant-start 144-watt fluorescent fixtures, cutting the wattage by more than half. Again, the savings achieved were not just from a reduction in wattage, but from decreased usage. CES also installed electronic timers with digital displays (one per court) that allow 45 minutes of lighting. Five minutes before time expires, the lights will flash off/on, then again when there is one minute left. If more time is needed, players may step outside to reset the timer to 45 minutes. When done using the courts, players may hit the timer again to shut the lights off.

It's estimated that these simple lighting upgrades in Robinson will lower the University's annual electric bill by approximately \$4,000 and \$5,000, respectively.

It's in the Numbers

GAS (THERMS) USED IN FISCAL YEAR 2007 BY BUILDING*

1	MALOTT HALL	555,658	25	ART AND DESIGN	56,324
2	HAWORTH HALL	464,524	26	EATON HALL	55,814
3	MULTIDISCIPLINARY RESEARCH FACILITY	263,840	27	BUDIG HALL (HOCH AUDITORIUM)	54,964
4	ROBINSON HEALTH & PHYS ED CTR	254,163	28	DYCHE HALL AND MUSEUM	51,093
5	ALLEN FIELDHOUSE	244,424	29	JOSEPH R. PEARSON HALL	51,018
6	LEARNED HALL	186,956	30	WAGNON STUDENT ATHLETE CTR	50,966
7	ANSCHUTZ SCIENCE LIBRARY	168,447	31	LINDLEY HALL & OBSERVATORY	45,412
8	BLAKE HALL	159,212	32	SPOONER HALL	41,722
9	STUDENT REC CTR	133,342	33	BAILEY HALL	38,023
10	STRONG HALL	117,913	34	CARRUTH O'LEARY HALL	37,905
11	SPENCER MUSEUM OF ART	112,045	35	SUMMERFIELD HALL	36,773
12	SIMMONS BIOSCIENCES RESEARCH LABS	106,020	36	MILITARY SCIENCE BUILDING	36,513
13	INTER X (CTR FOR RESEARCH)	103,759	37	MARVIN HALL	35,377
14	WATKINS STUDENT HEALTH CTR	96,730	38	ANDERSON STRENGTH CTR	33,156
15	WESCOE HALL	93,325	39	MOORE HALL	31,126
16	WATSON LIBRARY	88,604	40	FOWLER SHOPS	31,030
17	MURPHY HALL	88,485	41	NICHOLS HALL	27,384
18	LIED PERFORMING ARTS CTR	84,399	42	MCCOLLUM LAB	24,166
19	DOLE HUMAN DEVELOPMENT CTR	73,714	43	BURT HALL	23,883
20	KANSAS UNION	69,359	44	LIPPINCOTT HALL	21,698
21	SPENCER RESEARCH LIBRARY	69,090	45	STRUCTURAL BIOLOGY CTR	21,538
22	GREEN HALL	65,359	46	TWENTE HALL	18,899
23	FRASER HALL	61,073	47	ANSCHUTZ SPORTS PAVILION	16,766
24	DOLE INSTITUTE	57,066	48	BURGE UNION	16,748
			49	YOUNGBERG HALL	15,220
			50	FACILITIES OPS MAIN BLDG	9,181

*Includes only buildings that are currently being submetered for this utility data.

ENERGY QUIZ ANSWER:

(a) Two music CDs

With 75-watts savings and if the fixture is on 3,000 hours/year, then at \$0.08/kWh, the energy savings equal \$18. Also, if the light is on 3,000 hours/year, the incandescent bulb would probably need to be replaced twice, while the fluorescent bulb would have used only about one-third of its life.

To learn more about what you can do to save energy at KU, contact Rod Ideker at (785) 550-7014.