

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 has done and will continue to do to save energy.

DID YOU KNOW?

ACCORDING TO THE DISCOVERY CHANNEL SHOW, *MYTHBUSTERS*, IF YOU TURN YOUR FLUORESCENT LIGHTS OFF FOR MORE THAN 23 SECONDS YOU SAVE MORE ENERGY THAN IT TAKES TO TURN THEM BACK ON.

GOING TO BE OUT OF A ROOM MORE THAN 23 SECONDS? TURN OFF YOUR FLUORESCENT LIGHTS.

FOR INCANDESCENTS, THE TIME FRAME IS 1/3 OF A SECOND! ... AND IT TAKES FOUR TIMES AS MUCH ENERGY TO RUN AN INCANDESCENT LAMP AS A FLUORESCENT ONE.

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Meet Lacey Johnston, KU Energy Monitor

In our second issue of *Energy Saver News*, we highlight three different campus buildings: Art & Design, Marvin Hall, and Murphy Hall. Chevron ES has enlisted the help of Lacey Johnston, a KU student originally from Wichita, to act as an Energy Monitor for these buildings and spread the word about energy conservation. Lacey is a 2007 graduate of the University of Kansas and majored in Environmental Studies.



Lacey states, "Working with Chevron has helped me realize how unaware the entire campus is about energy savings. Honestly, it's not something people are thinking about. It's a great experience to be able to reduce the energy consumption on campus while making people aware of their actions. I have noticed improvements in the buildings I'm working with – Marvin, Art and Design, and Murphy. It's encouraging to see that people do care and are interested in the work that Chevron is doing on campus."

Below are usage stats for kilowatt-hour (units of electricity) and thermal consumption (units of natural gas) for the three buildings before Lacey started (2005) and after her assignment as a KU Energy Monitor (2006).

	Electric – kWh		Gas – Therms	
	2005	2006	2005	2006
Art & Design	1,802,310	1,764,350	102,271	75,143
Marvin Hall	727,950	695,480	36,323	31,955
Murphy Hall	1,954,050	1,827,410	117,377*	77,465

*Murphy Hall 2005 gas data is actually 2004 usage, as 2005 data had errors.

ENERGY QUIZ: You should keep your blinds, shades, or curtains **CLOSED** (a) always on sunny days; (b) always at night; (c) never. (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: Building Automation and Control System (BACS)

In each issue of the *Energy Saver News* we will focus on an Energy Conservation Measure or ECM. In this issue we highlight the **Building Automation and Control System (BACS)**.

Art & Design, Marvin, and Murphy all have had several new energy conservation measures installed. These ECMs include energy-efficient lighting, BACS, and the replacement of a chiller, cooling tower, and pumps at Murphy.

What is a BACS? A BACS is a programmed, computerized, "intelligent" network of electronic devices that monitor and control the mechanical and lighting systems in a building. The intent is to create an "intelligent" building and reduce energy and maintenance costs. One of the main features of a BACS is that it facilitates the scheduling of run times for various energy-using equipment and sets heating/cooling temperatures back during unoccupied times. Turning off equipment in a building or building areas when not in use saves energy. Such equipment includes lighting; heating, ventilating, and air-conditioning (HVAC); and a whole host of other energy equipment.

Scheduling: The BACS in all three of the featured buildings have been upgraded to the latest version of a Johnson Controls product known as MetaSys. This allows the KU Facilities Operations Dept. the ability to schedule HVAC equipment to match the occupied schedules from one central "front-end" PC. This saves time and money.

Temperatures: The BACS gives the Facilities Operations Dept. the ability to setback (heating) or setup (cooling) unoccupied temperatures for greater energy savings. The BACS also lets operators check temperature trends for comfort and building temperature recovery.

In short, energy efficiency can be maximized using the advanced scheduling and temperature setting capabilities offered by BACS-run equipment.

Energy Myth: *The higher you set a refrigerator's thermostat, the more efficiently it runs.*

The most efficient fresh food compartment temperature for a refrigerator is 37°F, which is still 4°F below the FDA maximum temperature guideline for refrigerated food.

ENERGY QUIZ ANSWER: (b) Always at night

In the summer, this keeps the heat outside; in the winter, this keeps the heat inside. Answer (a) **always on sunny days** is sometimes correct. In the daytime, closed blinds block solar heating energy. So, if your windows receive direct sunlight, close your blinds, shades, or curtains in the summer and open them in the winter. If your windows don't receive direct sunlight, leave them open during the day for additional lighting and consider turning off some electric lights.

It's in the Numbers

KILOWATT-HOURS USED IN CALENDAR YEAR 2006 BY BUILDING*

1	MALOTT HALL	7,316,270	20	SPENCER RESEARCH LIBRARY	2,035,210	41	BLAKE HALL	820,390
2	HAWORTH HALL	6,692,861	21	SNOW HALL	2,032,310	42	PARKING GARAGE & OFFICES	715,040
3	MULTIDISCIPLINARY RESEARCH FAC	5,462,705	22	WATSON STUDENT ATHLETE CTR	1,974,330	43	MARVIN HALL	695,480
4	LEARNED HALL	3,956,730	23	MURPHY HALL	1,827,410	44	CARRUTH O'LEARY HALL	656,970
5	SPENCER MUSEUM OF ART	3,314,990	24	INTER X (CTR FOR RESEARCH)	1,704,900	45	MCCOLLUM LAB	630,840
6	MEMORIAL STADIUM	3,037,540	25	JOSEPH R. PEARSON HALL	1,638,530	46	PARKING GARAGE #2	571,910
7	KANSAS UNION	2,914,218	26	GREEN HALL	1,564,320	47	CONTINUING EDUCATION	510,910
8	WATSON LIBRARY	2,820,480	27	DOLE INSTITUTE	1,513,140	48	ANSCHUTZ SPORTS PAVILION	442,830
9	ROBINSON HEALTH & PHYS ED CTR	2,806,430	28	POWER PLANT	1,436,350	49	YOUNGBERG HALL	422,240
10	ANSCHUTZ SCIENCE LIBRARY	2,750,160	29	DYCHE HALL & MUSEUM	1,426,570	50	CHILD CARE FACILITY	387,824
11	SIMONS BIOSCIENCES RESEARCH LABS	2,628,000	30	STRONG HALL	1,375,110	51	SMISSMAN RESEARCH LAB	366,720
12	STUDENT REC CTR	2,433,362	31	DOLE HUMAN DEVELOPMT CTR	1,264,920	52	ELLSWORTH TELECOM ANNEX	343,920
13	NICHOLS HALL	2,397,600	32	WATKINS STUDENT HEALTH CTR	1,243,890	53	BAILEY HALL	340,390
14	LIED PERFORMING ARTS CTR	2,363,795	33	LINDLEY HALL & OBSERVATORY	1,193,470	54	HOREJSI ATHLETIC PRACTICE FAC	328,960
15	BUDIG HALL (HOCH AUDITORIUM)	2,345,880	34	ANDERSON STRENGTH CTR	1,149,036	55	MILITARY SCIENCE BUILDING	320,800
16	ART AND DESIGN	2,280,170	35	WESCOE HALL	1,065,040	56	BURT HALL	229,920
17	COMPUTER SERVICES FAC	2,246,830	36	MOORE HALL	1,063,800	57	HOGLUND-MAUPIN STADIUM BLEACHERS	220,600
18	ALLEN FIELDHOUSE	2,084,300	37	STRUCTURAL BIOLOGY CTR	1,019,410	58	SMITH HALL	210,410
19	EATON HALL	2,065,800	38	FRASER HALL	898,490	59	PARROTT ATHLETIC CENTER	199,910
			39	BURGE UNION	858,180	60	PARKER HALL	185,120
			40	SUMMERFIELD HALL	836,760	61	BATTENFIELD	161,436
						62	FACILITIES OPS MAINT BLDG	154,968

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

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