

Objective: Reduce Use of Energy in Campus Buildings

Indicator: Z-Power Total Energy Consumption Reports and Gross Square Feet Inventory Reports

Criteria: Reduce Total Campus Energy Consumption per Gross Square Foot by 1% Annually Below FY2005.

Findings:

FY 08		Electric	Natural Gas	Consumption	EUI/	FY05	EUI/
Month	Area/Sqft	Kwh	MCF	Bill-btu	Kbtu/sf-yr	Area/Sqft	Kbtu/sf-yr
Sept 07	3,618,401	6,237,263	2,707	24.08	6.66	2,909,693	7.03
Oct 07	3,618,401	5,868,983	3,817	23.97	6.62	2,903,154	7.22
Nov 07	3,618,401	5,346,285	8,317	26.82	7.41	2,903,154	8.01
	3,618,401	17,452,531	14,841	74.87	20.69	2,903,154	22.28
Dec 07	3,618,401	5,014,891	11,536	29.00	8.02	3,222,832	7.74
Jan 08	3,618,401	5,287,167	14,029	32.50	8.98	3,222,832	7.49
Feb 08	3,618,401	5,113,725	12,721	30.56	8.45	3,222,832	8.36
	3,618,401	15,415,783	38,286	92.06	25.44	3,222,832	23.59
Mar 08	3,618,401	5,272,895	10,559	28.88	7.98	3,222,706	6.91
April 08	3,618,401	5,531,378	6,762	25.85	7.14	3,237,888	5.42
	3,618,401	10,804,273	17,321	54.73	14.92	3,237,888	12.29
	3,618,401	43,672,587	70,448	221.66	61.26	3,244,935	55.63

1. Comparing monthly energy consumption for FY 2008 Sept. – April to FY 2005 Sept. – April the campus energy consumption per gross square foot increased by 10%.
2. Contributing factors to increased energy consumption:
 - o Electricity used for construction projects not accounted for with square footage.
 - o Chill water loop leak at the HKC building in November 07. Repair was delayed due to tree removal and campus graduation.
 - o In December 07 the TRIES boiler had a boiler repair that resulted in increased water and natural gas consumption.
 - o Unexplained electrical distribution line losses.
 - o Chilled water leak in April 08 that resulted in increased water and electric consumption at the East Plant.
 - o East Plant chilled water tower filter problem causing increased water and electric consumption.

Actions:

1. Continue to monitor campus energy consumption and building operations.
2. Monitor weather degree days.
3. Contract services of an Energy Performance Contractor.
4. Identify campus buildings with high utility cost and conduct energy audits.
5. Ensure university facilities are designed, constructed, and renovated in accordance with energy conservation.
6. Evaluate additional metering needs and control points to the existing energy monitoring and control system.