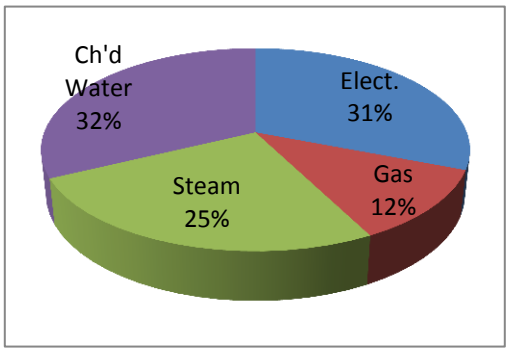
TEXAS TECH UNIVERSITY
HEALTH SCIENCES CENTER™

FY 2017 – 3rd Quarter Energy Report

TTUHSC buildings consumed 52 kBtu/sf in the 3rd Quarter, which is expected to meet our institutional goal of keeping energy utilization index (EUI) value in the range of 226 and 289 kBtu/sf/yr. Water consumption intensity for the 3rd quarter was 5.1 Gal/sf, which is within the limits of SECO (State Energy Conservation Office) water conservation guidelines.

Campus Energy Use (kBtu/Sq ft): March – May

Utility	FY17 Actual	FY16 Actual	Change
Electricity	16.03	16.14	-0.69%
Natural Gas	6.00	5.98	0.31%
Steam	13.23	15.18	-12.84%
Chilled Water	16.70	16.97	-1.59%
Total	51.96	54.27	-4.26%



1. In the 3rd Quarter FY 2017, average Cooling Degree Days (CDD) and Heating Degree Days (HDD) were 263 and 435 respectively, as compared to 258 and 472 respectively in the 3rd Quarter FY 2016.
2. Energy budget for FY 2018 has been prepared with a forecast of lower EUI as compared to the average EUI of previous 7 years.
3. 'EPA Portfolio Manager - Energy Data' is being updated on monthly basis. State Energy Conservation Office (SECO) has real time access to the data.
4. We are continuing with the electricity contract thru Tradition Energy to serve the buildings in Permian Basin and Abilene areas. Lubbock, Power & Light, and XCEL Energy have the sole authority to provide electricity to serve buildings in Lubbock and Amarillo areas respectively. ATMOS provides natural gas at all locations.
5. The installation of one new air cooled scroll chiller with R-410A refrigerant is ongoing. The project scope includes replacement of hydronic valves serving four air handling units and chillers in the building.
6. We have replaced 1,200 fluorescent T8 tubes and associated ballasts with LED T8 tubes at various locations. This will reduce electricity consumption, provide better illumination, and obtain lower life-cycle cost.
7. We have completed replacement of one air handling unit. The new AHU has multiple fans, VFD, pressure independent chilled water control valve, steam heating, and DDC control system. There is plan to retrofit older air handling units with multiple fans, DDC controls, PI valves, steam heating etc., in the Lubbock campus.
8. A total of (26) 350W LED fixtures were installed to replace (33) 400W HID fixtures, which improved illumination, light quality, color rendering, and reduced power consumption for the parking lots.
9. We installed two new condensing boilers to replace (2) standard boilers in the Odessa campus.
10. New energy efficient LED lights are being tested for performance and reliability, since FY2010. As of date, the failure rate is 5%, and no significant depreciation in illumination.
11. We continue to review the design documents and submittals for new building construction projects, to ensure compliance with ASHARE 90.1-2010 energy code requirements, and project specifications.
12. Total miles driven by vehicles in the 3rd Quarter FY2017 have increased by 12.3% (or 16,445 miles), as compared to the 3rd Quarter FY2016. Total fuel cost for the quarter has also increased by 42% (or $5,211.68) due to more trips taken.
13. We work with operation and maintenance departments to improve control parameters, and equipment conditions, identify projects and measures for the campus energy conservation.