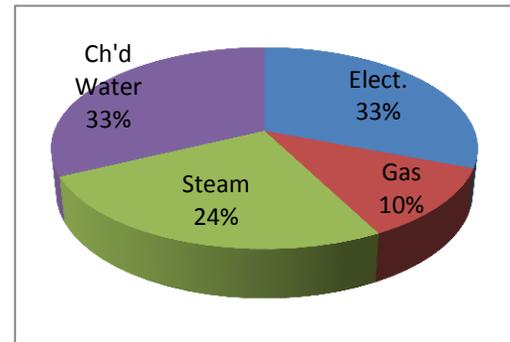


## FY 2018 – 1<sup>st</sup> Quarter Energy Report

TTUHSC buildings consumed 51.42 kBtu/sf in the 1<sup>st</sup> quarter, which is expected to meet our institutional goal of keeping energy utilization index (EUI) value of less than 240 kBtu/sf/yr. Water consumption intensity for the 1<sup>st</sup> quarter was 6 Gal/sf, which is within the limits of SECO (State Energy Conservation Office) water conservation guidelines.

### Campus Energy Use (kBtu/Sq ft): September – November

Utility	FY18 Actual	FY17 Actual	Change
Electricity	16.95	17.52	-3.23%
Natural Gas	5.14	5.83	-11.85%
Steam	12.20	14.68	-16.88%
Chilled Water	17.12	19.03	-10.03%
<b>Total</b>	<b>51.42</b>	<b>57.06</b>	<b>-9.89%</b>



- In the 1<sup>st</sup> quarter FY 2018, average Cooling Degree Days (CDD) and Heating Degree Days (HDD) were 389 and 486 respectively, as compared to 358 and 362 respectively in the 1<sup>st</sup> quarter FY 2017.
- 'Annual Energy Report', 'EPA Portfolio Manager - Energy Report', and 'Energy & Water Management Plan' were prepared and submitted to the state agencies in the month of October.
- 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.
- The installation of two new air cooled chillers in Odessa, is ongoing. This will replace the existing aging chillers which use R-22 refrigerant.
- We have completed retrofit of one air handling unit. The unit has new modular fans, VFD, pressure independent chilled water control valve, steam heating, and DDC control system. There is plan to continue retrofit of older air handling units in the Lubbock campus.
- We are continuing replacement of fluorescent T8 tubes and associated ballasts with LED T8 tubes, in the hallways, and equipment spaces. This will reduce electricity consumption, and provide better illumination.
- We have replaced 12 HID fixtures with 300W LED fixtures in the southwest campus parking lot of Lubbock. There is plan to replace 150 HID fixtures in the parking lots, with LED fixtures in the main campus. This will improve illumination, light quality, color rendering, and reduce power consumption.
- New energy efficient LED lights are being tested for performance and reliability, since FY2010. We select products from manufacturers with less than 1% failure rate, and no significant depreciation in illumination.
- We continue to review the design documents and submittals for the new building construction projects, to ensure compliance with ASHARE 90.1-2010 energy code requirements, and project specifications.
- Total miles driven by vehicles in the 1<sup>st</sup> quarter FY2018 have increased by 3.89% (or 5,992 miles) as compared to the 1<sup>st</sup> quarter FY2017. Total fuel cost for the quarter has also increased by 24.59% (or \$3,915.16) due to rising gasoline costs and more trips taken.
- We work with operation and maintenance departments to improve control parameters, and equipment conditions, identify projects and measures for the campus energy conservation.

