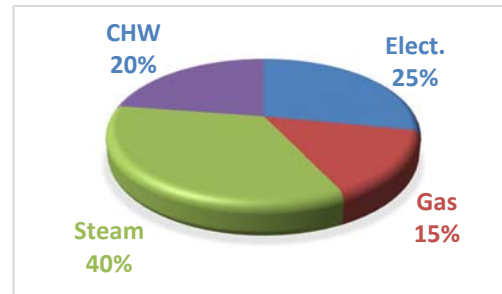


FY 2019 – 2nd Quarter Energy Report

TTUHSC buildings consumed 64 kBtu/sf in the 2nd quarter, which is expected to meet “HSC Energy and Water Management Plan” target of keeping annual energy utilization index (EUI) value of less than 250 kBtu/sf/year. Water consumption intensity for the 2nd quarter was 3.3 Gal/sf, which is within the limits of state water conservation standards, and less than most of the other state agencies in Texas.

Campus Energy Use (kBtu/Sq. Ft.): December – February

Utility	FY19 Actual	FY18 Actual
Electricity	16.10	16.01
Natural Gas	9.20	8.43
Steam	25.86	19.68
Chilled Water	12.92	12.86
Total	64.09	56.99



- In the 2nd quarter FY 2019, weighted average Cooling Degree Days (CDD) and Heating Degree Days (HDD) were 1 and 1,968 respectively, as compared to 3 and 1,999 respectively in the 2nd quarter FY 2018.
- TTUHSC is continuing with the electricity contract thru Tradition/ Reliant 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 except Lubbock central plant.
- HSC Facilities have completed refurbishment of one air handling unit (AHU). The unit has new modular fans, variable frequency drive, pressure independent chilled water control valve, steam heating, and DDC control system. Six additional AHUs are planned to be refurbished in 2019. Few AHUs are being retrofitted with pressure independent control valves and JCI direct digital control (DDC) system.
- Some pneumatic variable volume terminal boxes have been retrofitted with direct digital control components in the Lubbock and Amarillo campuses.
- One additional new air cooled chiller was installed in the Odessa campus, to replace the aging reciprocating chiller with R-22 refrigerant. The new variable drive air cooled screw chiller uses R-134a refrigerant, & exceeds energy code performance requirement.
- Plans are underway to replace 28 HID fixtures with LED fixtures in the Lubbock campus parking lots, in the 3rd quarter. The exterior LED replacement project has improved illumination, light quality, and color rendering, all while reducing power consumption.
- Facilities Operations have replaced a significant number of fluorescent T8 tubes and associated ballasts with LED T8 tubes, particularly in the hallways and equipment spaces (24/7 operation areas). Reduced electricity consumption and better illumination have been achieved.
- HSC Facilities provide support for successful completion of the new building construction projects, to ensure compliance with ASHARE 90.1-2010 energy code, other applicable code requirements and project specifications.
- Total fuel used by TTUHSC vehicles in the 2nd quarter FY2019 is 8,356 gallons.
- Engineering Services continue to work with operation and maintenance departments to improve control parameters and equipment conditions; identify projects and measures for the campus energy conservation.

