



April 15, 2015

Office of the Governor  
1100 San Jacinto  
Austin, Texas 78701

Mrs. Ursula Parks, Director  
Legislative Budget Board (LBB)  
Robert E. Johnson Bldg. – 5<sup>th</sup> Floor  
1501 North Congress  
Austin, Texas 78701

RE: **Semi Annual Energy Report, FY2015**

The Texas Tech University Health Sciences Center (TTUHSC) in El Paso, Semi Annual Energy Report for FY-2015 is being submitted in accordance with Governor's Executive Order, RP 49 and State Energy Conservation Office directives. TTUHSC continues to promote energy conservation measures and strategies, and seek new ideas to reduce consumption and improve building system efficiencies.

#### **A. Energy Consumption & Cost**

During first half of the FY2015, the institution consumed 66,073,579 kBtu. The energy utilization index (EUI) is 106 kBtu/gsf, a decrease of 5% as compared to first half of FY2014. The energy cost index (ECI) is \$1.46/sq ft, which has increased by 4% as compared to first half of FY2014. The cost increase is due to higher utility cost. Water consumption intensity for the first half of 2015 is 14 Gal/sf. The energy and water consumption values are estimated to be within the institutional target values.

The gross area (gsf) of the institution during this period has increased by 6% as compared to FY2014. Heating Degree Days (HDD) has increased by 2% and Cooling Degree Days (CDD) has increased by 7% for the first half of FY2015 as compared to FY2014. This is due to change in weather conditions.

TTUHSC continues to undergo steady programmatic growth and increase in overall occupancy density. So it's expected to increase the overall energy consumption. Energy consumption and cost breakdowns for the first half of FY2015 are shown in the table below. It includes FY2014 energy consumption, cost, and energy equivalents for the same period to facilitate comparison.





ENERGY CONSUMPTION AND COST (September to February)				
ENERGY TYPE	YTD CONSUMPTION		YTD COST	
	FY 2015	FY 2014	FY 2015	FY 2014
ELECTRICITY, kWh	9,447,609	8,408,040	\$701,785	\$ 615,639
NATURAL GAS, ccf	329,075	359,352	\$202,820	\$ 206,352
TOTAL ENERGY (kBtu), COST (\$)	66,073,579	65,638,027	\$904,605	\$ 821,991

### B. Energy Conservation Plan & Action

TTUHSC has a continuous program to educate the faculty and staff regarding energy conservation. TTUHSC Engineering Services Department maintains specific operating policy and procedure relating to the energy conservation program and utility review. Operating policy and procedures make the responsibility of energy conservation the obligation of every employee. A key element of the plan is to prevent waste and assure the conservation of resources.

TTUHSC Engineering Services has identified several projects for potential consideration in reducing the campus energy consumption. Projects were prioritized based on a variety of factors including return on investment, and cost. Projects that were implemented in the past were listed in the previous annual reports. Below is a partial list and status of projects that are completed in FY-2015 or currently being designed and/ or implemented.

1. Energy recovery system in Medical Science Building, El Paso. *Project is on hold due to lack of funding.*
2. It's our operating policy to use F28T8 lamps for office/laboratory/classroom and other such areas, and F25T8 lamps for hallway/toilet and other areas which need less illumination. This is being done to comply with the lighting power density requirement of the state energy code. *Project is ongoing.*
3. Complete installation of occupancy sensors for automatic lighting control. *Project is being implemented through new construction and renovations.*
4. Replace inefficient motors with premium efficiency motors. *Motors are being replaced at the end of their service life.*





5. New energy efficient LED lights are being tested for performance and reliability.  
*Project is being implemented as and when funding is available.*

**C. Future Energy Reduction Plans**

1. Re-commissioning of fan coil units in the TT Medical Center building.
2. Implement projects listed in Resource Efficiency Plan – 2014.
3. Use of solar photo-voltaic system to provide power to exterior lighting.

**D. Fuel Consumption Reduction Plans**

TTUHSC continues to emphasize automobile fuel conservation awareness with strategies such as group travel via automobile vs airplane, regular preventative maintenance, and an emphasis on tire pressure and conditions to gain economies. The total fuel consumption has decreased by 5% during first half of the FY-2015 as compared to FY2014.

Fuel (gasoline/diesel)Data:

FY15 Consumption	FY15 Cost	FY14 Consumption	FY14 Cost
6,637 Gallons	\$ 18,948	7,011 Gallons	\$ 21,415

Your consideration of this update and information is appreciated.

Sincerely,

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Director, Engineering Services

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XC:

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