Texas Tech University Energy Savings Program  
July 2006 Update

The Texas Tech Energy Savings Update is being submitted in accordance with RP 49, Electric Conservation by State Agencies. Energy numbers come from the Energy Report filed with SECO semi-annually. Texas Tech is currently in line to achieve our energy reduction goal.

A. Energy Goals

1. Campus Energy Use

Energy units are converted to mmbtu to allow for comparisons of the various energy forms. Goals and energy use are then stated in mmbtu/sq ft. Estimated savings are based on energy consumption for the same time period from the previous year normalized to current energy costs and campus square footage.

<table>
<thead>
<tr>
<th>Utility</th>
<th>FY05</th>
<th>Actual</th>
<th>% Change</th>
<th>Est. Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>.0241</td>
<td>.0246</td>
<td>-2.1%</td>
<td>-$59,900</td>
</tr>
<tr>
<td>Steam</td>
<td>.0375</td>
<td>.0356</td>
<td>5.1%</td>
<td>$135,000</td>
</tr>
<tr>
<td>Chillwater</td>
<td>.0253</td>
<td>.0242</td>
<td>4.3%</td>
<td>$56,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>.1266</td>
<td>.1276</td>
<td>0.8%</td>
<td><strong>$131,600</strong></td>
</tr>
</tbody>
</table>

2. Fleet Management

In FY2004 the Texas Tech University vehicle fleet consumed 201,186 gallons of fuel and traveled 2,279,692 miles. In FY2005 the Texas Tech University reduced consumption to 196,059 gallons of fuel, a reduction of 2.5%. The agency determined goal for FY2006 is 5% or 186,256 gallons. The estimated efficiency, in miles per gallons (mpg) required will be approximately 12.4.

In the first two quarters of FY2006, the Texas Tech University vehicle fleet consumed 95,839.8 gallons of fuel. This figure represents a 1.1% decrease compared with the same period of time in FY2005.

The established FY2006 goal for Texas Tech University is 12.4 mpg.

The table below reflects the efficiency of the University fleet through the second quarter of FY2006. These figures represent an increase in vehicle efficiency compared with previous year data.
### Historical University Vehicle Fleet Efficiency (mpg)

<table>
<thead>
<tr>
<th></th>
<th>1st Q</th>
<th>2nd Q</th>
<th>3rd Q</th>
<th>4th Q</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 04</td>
<td>10.0</td>
<td>11.5</td>
<td>12.5</td>
<td>11.7</td>
<td>11.3</td>
</tr>
<tr>
<td>FY 05</td>
<td>11.7</td>
<td>10.8</td>
<td>11.9</td>
<td>12.6</td>
<td>11.8</td>
</tr>
<tr>
<td>FY 06</td>
<td>11.9</td>
<td>12.2</td>
<td>12.1</td>
<td>12.1</td>
<td></td>
</tr>
</tbody>
</table>

### B. Current Energy Reduction Plans

#### 1. Campus Energy Use

Texas Tech is currently seeking funding from TPFA using the Master Lease Purchase Program for two energy projects.

a. AHU VFD Project – Estimated cost of $600,000 with a payback of 2.3 years.

b. International Textile Center Performance Contract - $560,000 with a 6 year payback.

#### 2. Fleet Management

The Texas Tech University tactics to achieve this goal are:

a. Improve overall fuel efficiency of fleet vehicles by replacing older, inefficient vehicles with newer, more efficient vehicles.  
   *In the first three quarters of FY2006, Texas Tech University has acquired thirty-nine new, more efficient vehicles. Additionally, as of June 19, 2006, an additional six new, more efficient vehicles are currently on order to replace older, less efficient models.*

b. Continue the aggressive Preventative Maintenance program to maintain all vehicles at their peak efficiency.  
   *The Preventive Maintenance program for all Texas Tech University vehicles will continue to be monitored. Routinely, notices are sent to all vehicle custodians advising when preventive maintenance services are needed.*

c. Continue to utilize the State’s Fleet Data Management System.  
   *The Texas Tech University Vehicle Fleet Management office will continue to use the Fleet Focus database to monitor vehicle utilization, efficiency, maintenance and accuracy of vehicle reporting. Any discrepancies will immediately be addressed with appropriate vehicle custodians.*
d. Educate personnel on the efficient use of University vehicles.

   The Vehicle Fleet Management office of Texas Tech University initiated a letter from the Vice-President of Operations to all vehicle custodians in December 2005, advising Governor Perry’s Executive Order and the university’s established goal of 12.4 mpg. Additional information included individual vehicle miles per gallon data for FY2005 and tips for improving vehicle efficiency.

e. Document agency best practices for operation and maintenance.

   New initiatives will continue to be collected and shared with appropriate vehicle custodians and operators through the Vehicle Fleet Management quarterly newsletter.

C. Future Energy Reduction Plans

   a. AHU Controls Upgrade – Estimated cost of $500,000 with an estimated payback of 6 years.
   b. Boiler Side-stream Heat Recover – Estimated cost of $500,000 with an estimated payback of less than 5 years.

D. Fuel Consumption Reduction Plans

   a. The Vehicle Fleet Management office will network with vehicle custodians to exchange information on vehicle efficiency and solicit additional best practices and other creative initiatives for the university vehicle fleet.