



***Texas Department of Transportation***

# **ENERGY CONSERVATION PLAN**

**Quarterly Report  
December 2005 – February 2006**

# **A. RESOURCE EFFICIENCY PLAN**

**Quarterly Report  
December 2005 – February 2006**

# **A. Resource Efficiency Plan Quarterly Report December 2005 – February 2006**

## **1. SUMMARY**

The Texas Department of Transportation (TxDOT) Resource Efficiency Plan has been prepared in accordance with the State Agency Energy Savings Program Provisions identified in Executive Order RP-49.

To energy conservation, TxDOT commits to:

- an agency-determined percentage savings goal for energy expenditures
- energy conservation design guides
- energy awareness plan
- project implementation update

This second quarterly FY06 report required by Executive Order RP49 provides data and status on the above identified plan commitments.

The data presented herein defines a quantitative baseline against which future quarterly and annual reports can be compared.

Energy conservation trends will be identified in future quarterly reports.

## **SECOND FY06 QUARTERLY REPORT ON PLAN COMMITMENTS:**

### **2. PERCENTAGE SAVINGS GOAL FOR ENERGY CONSERVATION**

Table 1 depicts first quarter FY06 electrical expenditures.

Table 2 depicts first quarter FY06 gas expenditures.

Future updates will use the tables as baseline information.

### **3. ENERGY CONSERVATION DESIGN GUIDES**

TxDOT is committed to considering energy conservation and consumption in the development and design of each facility renovation and construction project. The State Energy Code (ASHRAE 90.1-2004) is the basis for all designs.

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**4. ENERGY AWARENESS PLAN**

TxDOT is currently updating its Energy Management Manual to incorporate the latest energy conservation and management practices.

**5. PROJECT IMPLEMENTATION UPDATE**

During the second quarter of FY06, TxDOT began had 20 new re-roofing projects in either design or construction. These will provide additional insulation levels and increase the effectiveness of the building envelope and decrease energy consumption for building environmental control.

Also, design continued on HVAC and electrical upgrade projects at three sites. These projects will increase system efficiency through upgrading of older HVAC equipment and controls and through replacement of inefficient light fixtures with new efficient fixtures.

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Table 1

**FY06 Electricity  
Expenditures**

September	\$	360,828
October	\$	2,320,232
November	\$	4,737,283
December	\$	7,367,206
January	\$	10,196,644
February	\$	12,807,941

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Table 2

**FY06 Gas  
Expenditures**

	<b>FY06</b>
September	\$ 33,718
October	\$ 62,254
November	\$ 158,565
December	\$ 404,621
January	\$ 889,968
February	\$ 1,210,549

## **B. FLEET FUEL MANAGEMENT PLAN**

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**B. Fleet Fuel Management Plan  
Quarterly Report  
December 2005 – February 2006**

**1. SUMMARY**

The Texas Department of Transportation (TxDOT) Fleet Fuel Management Plan has been prepared in accordance with the State Agency Energy Savings Program Provisions identified in Executive Order RP49.

To minimize fuel use in all vehicles and equipment, TxDOT commits to:

- an agency-determined percentage savings goal for fuel expenditures
- employ a preventive maintenance program
- educate employees on fuel-efficient operating practices
- utilize the State's Fleet Data Management System
- document agency best practices

This second quarterly Fiscal Year (FY) 2006 report required by Executive Order RP49 provides data and status on the above identified plan commitments.

The data presented herein defines a quantitative baseline against which future annual reports and quarterly reports can be compared.

Fuel consumption and fuel economy trends will be identified in future quarterly reports.

**SECOND FY 2006 QUARTERLY REPORT ON FLEET FUEL MANAGEMENT PLAN COMMITMENTS:**

**2. PERCENTAGE SAVINGS GOAL FOR FUEL EXPENDITURES**

Table 1 contains an end-of-year summary of FY 2005 fleet data.

Table 2 contains first and second quarter FY 2006 mileage and fuel usage data as well as fuel economy figures for the department's light-duty, on-road vehicles. Also included in Table 2 are fuel usage data for the department's off-road construction and maintenance equipment as well as for the Galveston and Port Aransas ferry operations.

Table 3 contains a detailed comparison of changes between the first quarter and second quarter data.



### **3. TxDOT PREVENTIVE MAINTENANCE PROGRAM**

TxDOT is responsible for properly obtaining, managing, using, and maintaining equipment to ensure appropriate use of tax dollars. TxDOT's equipment preventive maintenance (PM) program was established to comply with these responsibilities. All districts, divisions, and offices (D/D/O) that have or use equipment must follow the PM program.

The current objectives of the PM program are the efficient and effective use of equipment, manpower, tools, and facilities to achieve maximum serviceability and safety of the equipment fleet at the lowest overall cost to the department.

TxDOT is currently adding an objective for conserving energy by maintaining vehicles in top operating condition to optimize fuel consumption.

### **4. EDUCATE EMPLOYEES ON FUEL-EFFICIENT OPERATING PRACTICES**

PM not only increases the life of a vehicle, but also impacts fuel economy. TxDOT Fleet Management is in the process of initiating a comprehensive education program for TxDOT employees in coordination with Human Resources Division ensuring best operating practices are implemented.

### **5. TxDOT PM TRACKING AND FORECASTING PROGRAM**

The ability to track and manage PM allows TxDOT to leverage its resources wisely. As TxDOT seeks to extend vehicle and equipment life, it is ever more critical that preventive maintenance activities be conducted in a prudent manner.

TxDOT is in the process of developing a centralized PM tracking program (*FleetTrackS*) which will result in qualitative and quantitative benefits.

*FleetTrackS* will allow for preventive maintenance activities to be forecast, planned and recorded. There will be qualitative benefits such as improved safety and improved equipment availability, which translate into extended service life.

### **6. STATE FLEET DATA MANAGEMENT SYSTEM**

State agencies and institutions of higher education are required to report vehicle data on a monthly basis using the State's Fleet Data Management System (*FleetFocus*).

TxDOT continues to utilize *FleetFocus* to produce and review vehicle reports, data summaries, and a minimum criteria calculation for its on-road vehicle fleet and to monitor its fleet cap.

## **7. TxDOT FLEET POLICIES AND BEST PRACTICES**

The Texas Building and Procurement Commission's (TBPC) State Vehicle Fleet Management Plan established procedures to increase vehicle use, improve efficiency of the state fleet and reduce the cost of maintaining state vehicles.

TxDOT addressed the plan's requirements and recommendations by outlining and describing policies and procedures already in place and developing guidelines within the plan by creating the TxDOT Vehicle Fleet Management Plan.

The TxDOT Vehicle Fleet Management Plan describes the policies, procedures, guidelines, and best practices incorporated by the department for the management of its fleet. This document is a reflection of both those policies and procedures employed by TxDOT and the guidelines developed to meet the State Vehicle Fleet Management Plan's specifications.

TxDOT is currently working closely with TBPC in updating and refining the State Vehicle Fleet Management Plan.

## **8. TxDOT EQUIPMENT MANUAL**

The TxDOT Equipment Manual provides policies and rules that TxDOT employees are required to follow in the management, use, repair, and disposal of motorized and non-motorized major equipment.

The manual provides TxDOT managers and equipment users or maintainers with the basic policies and procedures to manage the TxDOT equipment fleet.

The manual also provides updated information on laws, rules, policy, and procedures that govern the use, control, and management of the TxDOT equipment fleet.

TxDOT is currently performing an annual update to the Equipment Manual and will incorporate appropriate issues relating to energy conservation.