

# Energy Efficiency and Conservation Plan

For

Oklahoma Educational Television Authority

Fiscal Year 2010

## **Energy Manager**

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**Objective:**

**To meet the requirements of Senate Bill 833 issued May 14th, 2009:**

**“TO ENCOURAGE THE REDUCTION OF ENERGY CONSUMPTION BY STATE AGENCIES AND THE ENVIRONMENTAL IMPACT OF STATE AGENCY OPERATIONS”**

Senate Bill 833, an act relating to environment and natural resources; requiring state agencies to develop energy efficiency and conservation plans; stating requirements of plans; providing for storage of plans and assistance in implementing plans; providing for codification; and providing an effective date.

Each agency shall transmit a copy of its Energy efficiency plan and conservation plan to the Department of Central Services on or before November 1, 2009.

**Section I: Energy Team Overview**

- A. The Energy Team is comprised of four (4) representatives from the following departments and functions within the organization: Administration, Maintenance, and Finance. The Energy Team was established in August of 2009 and meets to discuss energy management issues, such as organization-wide energy use reduction policies, capital improvement plans, maintenance issues, etc.
  
- B. Executive Director of OETA, or designee (405) 841-9250  
Chief Engineer, or designee (405) 841-9266  
Deputy Director of Administration and Finance, or designee (405) 841-9247  
Certified Procurement Officer (405) 841-9272
  
- C. Recognizing our responsibility as Energy Efficiency Team members for OETA, we believe that every effort should be made to conserve energy and our natural resources. We also believe that this commitment will be beneficial to our agency employees and taxpayers in prudent financial management and the saving of energy.

The fulfillment of this policy is the joint responsibility of the Team, Director and the support personnel. Cooperation shall be experienced on all levels for the success of this policy.

**Section II: Facility/Site Description**

The main OETA facility is located at 7403 N Kelley Ave in Oklahoma City, Oklahoma. The building was built in 1956 with additions made in 1978 and 2008, totaling 21,933 square feet. OETA operates 24 hours a day with 67 personnel on staff and 67 computers. Additionally, OETA has three other staffed locations. One office is located Tulsa, Oklahoma. It is approximately 6,500 square foot and has seven (7) employees and seven (7) computers. The second facility is located in Eufaula, Oklahoma and is approximately 1,836 square feet and has one staff member and one computer. The third manned location is in Cheyenne, Oklahoma and is approximately 1,536 square feet and employs one full-time and one part-time employee. There is one shared computer at this location.

During the first year OETA will concentrate on reducing energy consumption at the Oklahoma City location and then bring the other locations on board during the second year.

### **Section III: Energy Plan Elements**

**Goal 1: Reduce the agency's annual maintenance and operating budget devoted to energy consumption (usage).**

**Strategy 1.1:** Collect annual energy usage data for agency

**Objective 1.1.2:** Gather energy usage from utility meters to include the low power translator sites which are unmanned.

**Strategy 1.2:** Collect annual energy usage data for vehicle fleet owned or leased by the reporting organization in order to improve fleet vehicle efficiency. Include annual average mileage of fleet, number of vehicles in fleet, and age of vehicles in fleet.

**Objective 1.2.1:** Determine annual miles per gallon of vehicle fleet currently as a benchmark.

**Objective 1.2.2:** Determine annual miles per gallon of vehicle fleet after purchasing more fuel efficient vehicle(s)

**Strategy 1.4:** Identify and implement five (5) initiatives to reduce power consumption in the office and support areas by November 1, 2012.

**Objective 1.4.1:** Develop a power consumption model for office and support area assets

**Objective 1.4.2:** Develop administrative policies that support green initiatives

**Goal 2: Promote agency operations and practices that will reduce, to the extent practicable, the environmental impact of the agency's overall operation**

**Strategy 2.1: Materials, Products and Services** – develop new or revise existing standards and criteria for purchasing materials, products or services which:

**Objective 2.1.1:** Consider the availability of bio-based products

**Objective 2.1.2:** Express a preference for the purchase of products that are made from, and/or packaged with, recycled materials, and products that are, themselves recyclable in whole or in part

**Strategy 2.2: Fuel-efficient Fleet** - establish criteria for a more fuel-efficient fleet that will result in a more fuel-efficient agency vehicle fleet

**Objective 2.2.1:** OETA currently has 12 vehicles that are leased and purchased. When replacing vehicles, consider fuel efficiency for the vehicles' intended use.

**Objective 2.2.2:** Utilize electric vehicles for maintenance and operational needs when possible. Leased vehicles would require State Motor Pool to lease electric vehicles.

**Strategy 2.3: Recycling Program** – establish recycling programs for paper and plastic waste.

**Objective 2.3.1:** Implement a recycling program for paper, plastic, glass, cardboard, and aluminum by November 1, 2010.

**Objective 2.3.2:** Participate in the recycling of toner cartridges.

**Strategy 2.4: Lighting Systems** - establish and implement policies and practices that will reduce energy consumption attributable to lighting systems, including, but not limited to the following:

**Objective 2.4.1:** Policies that ensure lighting systems are turned off during non-operating hours

**Objective 2.4.2:** Convert to more energy-efficient lighting systems and bulbs via compact fluorescent lamps (CFLs) etc.

**Objective 2.4.3:** Maximize use of natural lighting whenever possible and consistent with temperature control

**Strategy 2.5: Heating, Ventilation, and Air Conditioning Systems** - establish measures to ensure that Heating, Ventilation, and Air Conditioning (HVAC) systems operate at reduced levels during non-operating hours.

**Objective 2.5.1:** Implement schedules to control HVAC systems

**Objective 2.5.2:** Set/adjust timers for air conditioning, etc.

**Strategy 2.6: Computer Equipment** – establish policies and practices designed to ensure that all electrically-powered equipment, including computer equipment, is turned off when not in use, and that personal computers are configured with default settings that ensure that computers go into "sleep mode" after 30 minutes or less of non-use

**Objective 2.6.1:** Purchase ENERGY STAR computers, printers, copiers, etc.

**Objective 2.6.2:** Set timers for computers to go into sleep mode after 30 minutes or less of non-use

**Strategy 2.7: Paper Usage** – establish policies and practices designed to reduce the use of paper, including but not limited to:

**Objective 2.7.1:** Reduce internal paper consumption by 10% by November 1, 2012

**Objective 2.7.2:** Implement duplexer add-ons to printers which will automatically print dual-side prints of multi-page documents

**Objective 2.7.3:** Encourage users to use the setting of typeface fonts and default page margins in word-processed or other agency-printed documents, so as to maximize paper use

**Objective 2.7.4:** Encourage and require, where appropriate, the use of electronic, "paperless" communication between agency employees, in lieu of printed materials.

**Strategy 2.8: Reducing Non-essential Electricity Usage** - establish agency-wide policies designed to reduce "plug load" attributable to the use of non-essential appliances, such as personal coffee makers, toasters, space heaters, refrigerators, microwave ovens, fans, televisions, radios, etc.

**Objective 2.8.1:** Develop standards for personal appliances

**Objective 2.8.2:** Communicate standards through newsletters, employee forums, and broadcast media

**Strategy 2.9: Training / Culture of energy awareness** – establish a training program for agency employees and building Energy Managers in order to ensure better understanding and support of Green Initiatives

**Objective 2.9.1:** Establish a training program in the implementation of low- and no-cost operation and maintenance conservation measures

**Objective 2.9.2:** Establish a training program for the designated agency supervisory personnel, who will be responsible for monitoring and enforcing energy-efficiency measures within the agency

**Objective 2.9.3:** Create an Energy Team comprised of representatives from throughout the organization

**Objective 2.9.4:** Create an energy policy to be accepted agency-wide

**Objective 2.9.5:** Hold regular meetings of the Energy Team to discuss agency-wide integration of energy, financial, and strategic goals

**Objective 2.9.6:** Send out regular email alerts on energy efficiency measures

**Objective 2.9.7:** Set lights out and computer shut-down policies for end of day

**Strategy 2.11: Building Envelope** – Evaluate building envelope(s) for energy conservation measures.

**Objective 2.11.1:** Install insulation where needed

**Strategy 2.12: Water Conservation**

**Objective 2.12.1:** Baseline water usage

**Objective 2.12.2:** Identify water conservation opportunities

**Objective 2.12.3:** Assess and prioritize opportunities

**Objective 2.12.4:** Repair leaky faucets

**Goal 3: Integrate energy use considerations into maintenance plans**

**Strategy 3.1:** Enhance preventative and routine maintenance procedures to maximize energy efficiency

**Objective 3.1.1:** Perform filter changes for HVAC systems at regular intervals

**Objective 3.1.2:** Perform regular inspections for pneumatic leaks

**Objective 3.1.3:** Decommission high energy use equipment

**Strategy 3.2:** Integrate energy considerations into cleaning / janitorial activities

**Objective 3.2.1:** Evaluate need for / frequency of various cleaning activities

**Objective 3.2.2:** Utilize cleaning products that reduce energy and water consumption

**Objective 3.2.3:** Schedule custodial functions closer to operational hours

**Strategy 3.3:** Evaluate high efficiency replacements of all equipment

**Objective 3.3.1:** Replace all failed motors with premium efficiency ones

**Objective 3.3.2:** Replace all failing appliances with ENERGY STAR as minimum standard

**Goal 4: Integrate energy use considerations into capital improvement plans**

**Strategy 4.1:** Incorporate energy efficiency considerations into new construction or renovation projects

**Objective 4.2.1:** Provide details on all new construction projects that will be started in the next year and note if life-cycle cost analysis was used to reduce water, energy, and other utilities.

**Objective 4.2.3:** Provide details on all major renovation projects that will be started in the next year.

**Objective 4.2.4:** Provide details on all planned purchases of constructed or renovated buildings in the next year.

**Goal 5: Agency 2 year Goals**

**Strategy 5.1:** Reduce transportation costs by 10% by November 1, 2012.

**Strategy 5.2:** Reduce electricity costs by 10% by November 1, 2012.

**Strategy 5.2:** Reduce paper usage by 10% by November 1, 2012.