



John S. Richard
Director

Brad Henry
Governor

STATE OF OKLAHOMA
DEPARTMENT OF CENTRAL SERVICES

MEMORANDUM

DATE: September 1, 2010
TO: All Appointing Authorities
FROM: John Richard, Director 
RE: Agency Sustainability Plans

In response to directives set forth in Senate Bill 833, The Department of Central Services (DCS) continues to research, identify, and provide ways to aid state agencies in the development of their sustainability plans.

Attached please find a document containing an introduction to Energy Star and their many resources for energy efficiency, as well as no-cost or low-cost recommendations to include in your agency's plan.

If you have any questions or need assistance with your plan, please contact Liz Haigh at (405) 521-3315 or liz_haigh@dcs.state.ok.us. Thank you.

"SERVICE, QUALITY, INTEGRITY"

CREATING YOUR AGENCY'S SUSTAINABILITY PLAN

With the passing of Senate Bill 833 in May, 2009 the Department of Central Services (DCS) was tasked with assisting state agencies with their *Energy Efficiency and Conservation Plans*. This document is intended to aid in getting started with setting goals and developing a comprehensive plan to include all areas of sustainability. By providing an introduction to **ENERGY STAR**, as well as outlining some recommendations that can be implemented immediately at no cost or a low cost, state agency's can instantly begin saving energy and dollars.

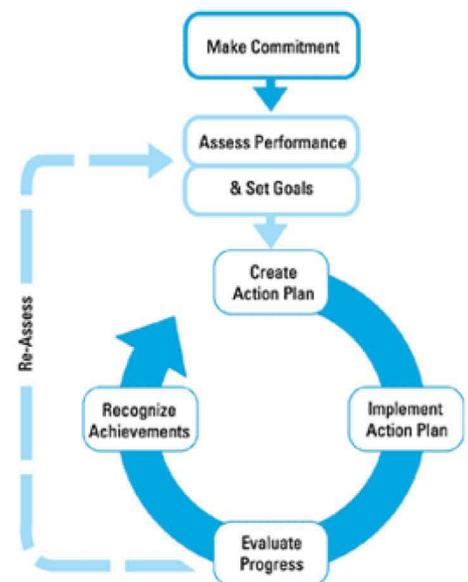
When creating and implementing your agency's plan, the definitive resource to consult for all areas of sustainability in your office space is the Energy Star website. Whether your agency owns or leases office space, Energy Star has resources for not only saving energy but purchasing and training.

Are you a small agency leasing space? Your plan can be as simple as incorporating small steps outlined in Energy Star's "[Bringing Your Green to Work](#)" campaign.

Do you own your building? Energy Star has step-by-step instructions for benchmarking your current energy use, tracking future use and understanding the contribution of energy expenditures to operating costs. Energy Star's "State Governments" section of their website is dedicated to what state agencies can do to improve energy efficiency, such as:

- Establish a comprehensive energy management program using Energy Star's [Guidelines for Energy Management](#).
- Measure and track energy and water use in ALL existing buildings with [Portfolio Manager](#).
- Purchase [ENERGY STAR qualified products](#) to save energy throughout the state.
- See ENERGY STAR [State Government Partners](#) and read [Profiles of Labeled Government Buildings](#).

Whether you own or lease your space, the first step to improved energy efficiency is making a commitment. Set goals for your agency, create a plan and put it into action.



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RECOMMENDATIONS FOR IMMEDIATE NO COST OR LOW COST SAVINGS

Electricity – By implementing the recommendations below, a facility can realize at least a ten percent savings in electricity costs.

Recommendation	Action Needed	Estimated Cost to Implement Including Labor
Turn off non-critical computers , printers and copiers when office is unoccupied.	Recommend this be a requirement of all state agencies.	No cost
Purchase or lease only Energy Star office equipment when available.	Central Purchasing to review existing contracts and amend as needed.	No cost
Set domestic hot water heaters to a temperature setting that will yield no higher than 110 degree water at the source.	Recommend building managers enforce, except in the case of food preparation or other possible, similar exemptions	No cost
Upgrade lighting to CFL bulbs and prohibit the purchase and use of T-12 fluorescent and incandescent lamps.	Central Purchasing to review existing contracts and amend as needed.	No cost
Replace all magnetic ballasts with electronic ballasts.	Check current ballasts and upgrade in conjunction with light bulbs.	Ballast checkers are approximately \$50 each
<p>Upgrading from energy-saver T12 lamps to standard T8 lamps and electronic ballasts can produce energy savings of <i>more than 25 percent</i>; using high-performance T8 lamps boosts savings to <i>more than 40 percent</i>.</p>		
Prohibit the use of halogen task lighting over 70 watts in the work area.	Recommend this be a requirement of all state agencies.	No cost
Remove fluorescent lamps from beverage machines.	Building managers work with whoever manages vending in respective buildings.	No cost
Install Vending Miser energy saving devices on vending machines.	Building managers work with whoever manages vending in respective buildings.	Less than \$200 per device

Turn off any lighted building signage after normal business hours.	Recommend this be a requirement of all state agencies.	No cost
Turn off building accent or decorative lighting on buildings and flag poles after business hours.	Recommend this be a requirement of all state agencies.	No cost
Turn off all lighting in unoccupied areas including corridors. Security lighting shall be adequate.	Recommend all state agencies turn off lights when not in the office, and particularly ensure lights and office equipment are shut off on Friday evenings.	No cost
Lighting consumes <i>close to 35 percent</i> of the electricity used in commercial buildings in the United States and affects other building systems through its electrical requirements and the waste heat that it produces.		
Measure light levels in all areas with a light meter and reduce lighting where light levels are higher than prescribed for each type of space.	One light meter required for each building.	Light meters are approx \$100 ea.
Agencies shall establish work place procedures that do not allow individual refrigerators, microwaves, coffee pots, toasters, etc. in individual offices or cubicles, but do take into consideration special needs.	Agencies may establish centralized areas with a refrigerator, microwave, etc.	Low cost
<u>Paper</u> - The U.S. EPA estimates that 40% of all our garbage is made of highly-recyclable paper and paperboard. By recycling more paper at the office, you are also reducing the amount of garbage that will have to be picked-up, driven to a facility/landfill, and processed. Garbage services are charged by the cubic yard; in addition to freeing up valuable landfill space, recycling saves money!		
Adopt paperless processing and filing wherever possible, printing only those documents that are absolutely necessary.	Establish procedure for all employees to create digital signatures so that things commonly printed and signed can be digitally signed and electronically transmitted and filed.	No cost

If all copiers sold in the United States were ENERGY STAR®-labeled and set to automatically default to duplex, the amount of paper used could be reduced by more than 200 billion sheets. This adds up to a savings of 1 million tons of paper, enough to save an estimated 20 million trees!

Water – Replacing typical 2.2 gallons per minute faucet aerators with low-flow, .5 gallons per minute aerators can save hundreds of gallons of water per month.

Replace faucet aerators with low-flow aerators.

Recommend this be a requirement of all state agencies.

Approx. \$1 per faucet

Recycling – Assign a Recycling Coordinator in your Agency to implement a recycling program.

Implement recycling program to include aluminum, plastic, paper and cardboard.

<http://www.epa.gov/osw/conservation/tools/localgov/benefits/index.htm>

Cost of receptacles: \$6-\$200 each, depending on size.

Recycle all [rechargeable batteries](#).

All rechargeable battery vendors will accept used batteries for recycling.

No cost

Recycle toner cartridges

The State Use vendor for toner, Valley Laser, will pick up empty toner cartridges. Call 405.238.3888 for more information.

No cost

SUSTAINABILITY TIPS

Recycling - The U.S. EPA estimates that 40% of all our garbage is made of highly-recyclable paper and paperboard. By recycling more paper at the office, you are also reducing the amount of garbage that will have to be picked-up, driven to a facility/landfill, and processed. Garbage services are charged by the cubic yard; in addition to freeing up valuable landfill space, recycling saves money!

- For more recycling information and resources, consult the [DCS Sustainability Page](#).

Computer Power Management Features - To maximize power savings, the EPA recommends setting computers to enter system standby or hibernate after 30 to 60 minutes of inactivity. To save even more, set monitors to enter sleep mode after 5 to 20 minutes of inactivity. The lower the setting, the more energy you save. *Benefits include:*

- Cutting the electricity used by PCs roughly in half, saving \$25–75 per PC annually. Estimate your savings using Energy Star’s [online savings calculator](#) .
- Reducing office cooling loads, saving an additional \$5–10 per PC annually, and as much as \$10–25 or more in warm climates
- Decreasing peak load demand charges levied by utilities
- Enhancing data security by reducing the chance that valuable information is displayed on unattended PCs
- Improving user productivity by eliminating the daily wait for computers to boot up
- Public recognition for preventing pollution. Join a growing number of IT departments that are implementing sustainable, environmentally friendly [Low Carbon IT](#).

Print Only When Necessary - Ask yourself before printing an email, work document or miscellaneous page, whether it can remain on your screen. If you do print, choose only the pages with text you need and print on both sides of the paper. When you’re out of ink look into cartridge refilling programs and consider recycled paper for your next printing purchase.

- It takes a gallon of oil to produce one ink cartridge, which are disposed of every 13 seconds on average.
- The average consumer uses 1.5 pounds of paper every day, meaning you can go through a ream in just a few weeks.
- Through email and file back up, you can access documents at the drop of a hat without a hard copy.

Environmental Benefits of Recycled Paper - Switching from virgin to recycled content paper results in many benefits. Research by the Alliance for Environmental Innovation has shown that each ton of recycled fiber that displaces a ton of virgin fiber used in coated groundwood paper (stock used in magazines):

- Reduces total energy consumption by 27%
- Reduces net greenhouse gas emission by 47% and reduces particulate emissions by 28%
- Reduces wastewater by 33%, reduces solid waste by 54%, and reduces wood use by 100%

30% Postconsumer Copy Paper - One ton (40 cases) saves the equivalent of:

- 7.2 trees [forty feet in height and 6-8 inches in diameter]
- 2,100 gallons of water, 1,230 kw hours of electricity, and 18 pounds of air pollution
-

100% Postconsumer Copy Paper - One ton (40 cases) saves the equivalent of:

- 24 trees [forty feet in height and 6-8 inches in diameter]
- 7,000 gallons of water, 4,100 kw hours of electricity, and 60 pounds of air pollution

Lighting Upgrades - An ENERGY STAR qualified compact fluorescent light bulb (CFL) will save about \$30 over its lifetime and pay for itself in about 6 months. It uses 75 percent less energy and lasts about 10 times longer than an incandescent bulb.

- See Energy Star's FAQs ([source](#)) about CFLs for more information.

Use Rechargeable Batteries - Even though you might spend a little more in the beginning, rechargeable batteries are still the way to go when it comes to saving money and reducing waste in the long run. Shop around for deals on rechargeable batteries, so you don't get stuck buying cheaper alkaline batteries at the last minute. Consider an ENERGY STAR-qualified battery charger ([source](#)) so you'll use less energy charging batteries.

- Rechargeable batteries can be charged hundreds of times without losing the ability to hold a charge, while single-use batteries are "one and done."
- It is easier to find recycling locations for rechargeable batteries instead of single-use batteries.
- In energy-draining devices, such as digital cameras, batteries may only hold a charge for a few hours of use.