

# *"Make Energy a Consideration in All We Do"* energyexpress

A product of the Air Force Civil Engineer Center

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SPECIAL EDITION

## October is Energy Action Month!

The Air Force is celebrating Energy Action Month, the annual Department of Energy initiative that highlights the crucial role energy use and conservation play in all our lives.

This year's Air Force theme for EAM, "I Am Air Force Energy," emphasizes the critical function every Airmen, civilian and contractor has in helping the Air Force achieve an assured energy advantage in air, space, and cyberspace.

Energy is a fundamental component of Air Force operations and must be a consideration in every mission and organization. Therefore, it is a core goal of the Force to support the joint mission while improving resiliency, reducing demand, assuring supply, and fostering an energy aware culture.

That's where Energy Action Month comes in. For the entire month of October, bases across the Air Force are conducting energy-savings competitions, awareness campaigns, base energy days, and special events to educate everyone from first-year Airmen to base commanders about commonsense ways to reduce their energy footprint and save operational costs for the Air Force.

The Air Force is the largest consumer of energy in the armed forces, spending

### Power the Force. Fuel the Fight.



# I AM AIR FORCE ENERGY

\$9 billion in 2013. Fuel and electricity comprise almost 10 percent of the Air Force's budget. Therefore, energy security and efficiency are central to the Air Force's continued mission success.

Energy Action Month is a time to show Airmen that even the smallest effort to save energy can reduce that cost drastically.

In this special edition of Energy Express you will find easy tips for reducing your energy usage and energy facts you may not have known. You will also learn how bases and even entire major commands are implementing the latest technologies to update equipment and facilities, and even utilize renewable energy like wind turbines and solar panels. Enjoy, and remember,

**"YOU ARE AIR FORCE ENERGY!"**

*in this issue:*

- Energy savings facts & tips
- What YOU can do for EAM
- Creative ways bases are saving energy





## Wondering what you can do for Energy Action Month?

### Take ACTION!

**Appliance reduction** – In your office, are there personal appliances that can be removed? Even if you don't remove them, it is a good idea to unplug them.

**Computer log off** – Log off of your computer at the end of the day before removing your common access card. The Air Force IT Power Management Team at Maxwell Air Force Base, Ala., estimates this action alone could save more than \$10 million a year.

**Temperature control** – Most bases have set thermostat policies for warm and cold season temperatures. Instead of compensating with space heaters or fans, dress appropriately for the temperature in your facility.

**Inform your facility manger** – Report incorrectly set temperature points, blocked or dirty air vents, leaky faucets, or any other energy inefficiencies to your facility manager or civil engineer customer service representative.

**Outdoor conservation** – If you see a broken sprinkler spraying in the road or leaking, or if you notice a parking lot light left on during the day, please report it to your local civil engineer customer service representative.

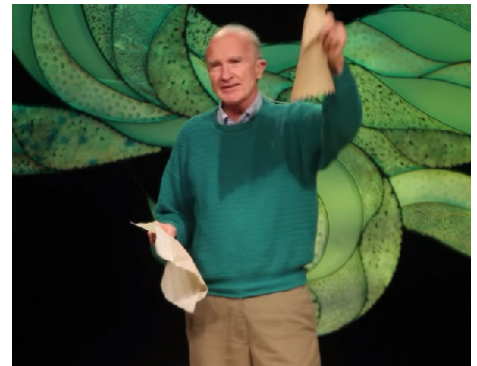
**No waste** – If you see anything that doesn't need to be turned on or even plugged in, turn it off or unplug it.

### Energy Savings Quick Facts

- 1 If every American used one less paper towel per day for a year, it would amount to 571,230,000 pounds of paper not used.
- 2 Replacing 25 percent of the lights in high-traffic areas with compact fluorescent light bulbs can save you about 50 percent on lighting expenses.
- 3 A water faucet that leaks one drop per second can add up to 165 gallons per month. That's more water than the average person uses in two weeks!
- 4 Every time you open the refrigerator door, up to 30 percent of the cold air can escape.
- 5 Incandescent light bulbs only use 10 percent of the energy they use for light; 90 percent is lost to heat.

### Connect!

Follow us online and on social media for Energy Action Month updates, ideas, and contact information.



Watch this video to learn how to dry your hands with only one paper towel!

**WATCH NOW >>>**

# Profiles in energy savings

See creative ways bases around the world are reducing energy usage and saving operational costs for the Air Force.



(U.S. Air Force graphic/Steve Perry/Released)

Royal Air Force Mildenhall, U.K., energy manager Steve Perry created the ReSOURCERS comic strip to "illustrate" ways to save energy in the daily routine. The strip was part of an overall energy plan that won Mildenhall and Perry a 2014 Federal Energy Management Program award.



(U.S. Air Force photo/Senior Airman Grace Lee/Released)

Energy managers at Luke AFB, Ariz., installed solar arrays on buildings throughout the base to cut energy expenses. "We currently have four active solar arrays on base and are in the process of installing four more to produce hot water for three of the dormitories and the dining facility," said Master Sgt. Adam Kelley, 56th Civil Engineer Squadron base energy manager. Luke is also working to replace old equipment with more energy-efficient units. The upgrades earn money back from the local utility company, Arizona Public Service, as part of the company's incentive program. The extra money goes directly back to Luke.



(U.S. Air Force photo/Eddie Green/Released)

Tinker AFB, Okla., in cooperation with the Air Force Civil Engineer Center, replaced three decades-old steam heating plants with high-efficiency natural-gas boilers on each building on the base. The upgrade reduced Tinker's natural gas consumption rate by 30 percent and is projected to save the base \$6.4 million per year. Tinker also refitted a plane stripping and painting facility with upgraded heating units.



(US Air Force photo/Eddie Green/Released)

The 6th Space Warning Squadron at Joint Base Cape Cod, Mass., operates the Phased Array Warning System, called PAVE PAWS. The radar reaches 3,000 miles, covering the entire East Coast and over the Atlantic Ocean. PAVE PAWS operates around the clock and requires large amounts of energy. In conjunction with Air Force Space Command and the Air Force Civil Engineer Center, leaders at 6th SWS installed wind turbines that now provide 50 percent of the radar's power.

# Energy Savings Checklist\* Use these handy checklists at work and home to ensure you are using energy wisely and reducing consumption any way you can!

## AT WORK

- Unplug equipment that drains energy when not in use (i.e. cell phone chargers, fans, coffeemakers, desktop printers, radios, etc.).
- Turn off your computer and monitors at the end of the work day, if possible. If you leave your desk for an extended time, turn off your monitor.
- Turn off the photocopier at night or use low-standby feature.
- Save paper. Photocopy only what you need. Always use the second side of paper, either by printing on both sides or using the blank side as scrap paper.
- Carpool, bike, or use mass transit when commuting to work.
- Use coffee mugs instead of disposable cups.
- Use task lighting; instead of brightly lighting an entire room, focus the light where you need it, to directly illuminate work areas.
- Use natural lighting or daylighting. When feasible, turn off lights near windows.
- Turn off lights when you leave at night.

## AT HOME

- Turn down the temperature of your water heater to the warm setting (120°F). You'll save energy and avoid scalding your hands.
- Make sure your furnace or heat pump receives professional maintenance each year.
- Replace your incandescent bulbs with compact fluorescent lights (CFLs) or light-emitting diodes (LEDs). CFLs can save three-quarters of the electricity used by incandescents.
- Turn off the lights in unoccupied rooms or consider installing timers, photo cells, or occupancy sensors to reduce the amount of time your lights are on.
- Turn off your computer monitor when not in use for more than 20 minutes, and turn off both the CPU and monitor if you're not going to use your computer for more than 2 hours.
- Install a programmable thermostat that can be adjusted to temperatures according to your schedule. And look for the ENERGY STAR® label when replacing your system.
- During winter, open curtains on your south-facing windows during the day to allow sunlight to naturally heat your home, and close them at night to reduce the chill you may feel from cold windows.
- Clean or replace filters in your furnace, air conditioner, and heat pump regularly.
- ENERGY STAR labeled products can cut your energy bills by up to 30 percent. Find retailers near you at [www.energystar.gov](http://www.energystar.gov).

\*source: <http://energy.gov/eere/femp/energy-action-month>

# Think about reducing your idle time



(U.S. Air Force photo/Eddie Green/Released)

A study conducted at Joint Base McGuire-Dix-Lakehurst, N.J., showed that 44 percent of total gasoline and 33 percent of diesel gallons pumped were expended for vehicle idle.

Assuming JB-MDL idle times are the Air Force average, if users were to cut idle time by 50 percent, the Air Force would save \$228 per vehicle annually.

Expanding that savings over the entire 85,000-vehicle fleet, fuel savings would amount to \$19 million a year.

Below are some tips for saving fuel and money, whether you are driving on the job or just running errands.

## Fuel Savings Quick Tips

- 1 Improve your gas mileage by up to 3.3 percent by keeping your tires inflated to the proper pressure. Under-inflated tires can lower gas mileage by 0.3 percent for every 1 psi drop in pressure of all four tires. Properly inflated tires are safer and last longer.
- 2 Remove excess items from your vehicle. An extra 100 pounds in your vehicle could increase your gas costs by up to \$.07 cents per gallon.
- 3 Consolidate trips and errands. Also, try to travel when traffic is light so you can avoid stop-and-go conditions.
- 4 Avoid aggressive driving, such as speeding, rapid acceleration, and hard braking, which can lower your highway gas mileage by up to 33 percent and your city mileage by 5 percent.
- 5 Avoid high speeds. Above 50 mph, gas mileage drops rapidly. For every 5 mph above 50 mph, it's like paying an additional \$0.25 per gallon of gasoline.
- 6 Service your car according to the manufacturer's specifications, especially the air filter. When vehicles cannot take in enough air, they use more fuel.
- 7 Have your vehicle aligned regularly.



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