



Leading By Example

February - 2011

DOT is a Winner with Energy Projects Totaling Over Two Million Dollars Statewide

DOT has been aggressive and actively utilizing available capital funds and American Recovery and Reinvestment Act (ARRA) funds for energy projects for many of the DOT facilities around the state.

ARRA funds (stimulus) were used for projects such as the boiler replacement at the John O. Morton Building, the Department home office. In what might be considered a bold move, wood boilers will be installed at 21 of the district patrol facilities. The order in which the sheds will be completed is in flux but the project began in January and all sheds should be completed by June 2011. Various sheds are also scheduled to receive weatherization upgrades to include window replacement and attic insulation. The DOT patrol facilities were not the only ones to receive the benefit of ARRA funds. We were successful in replacing windows and installing attic insulation at the Canterbury rest area.

State Capital funds are being used primarily for interior energy improvements at DOT. The Bureau of Traffic will be installing infrared and gas heaters to replace the current electric heaters. In Districts 1-5 a great deal of the T 12 lighting fixtures are

being replaced with energy efficient T 8 lighting fixtures. Many of the patrol facilities will begin installing and using water cooler timers as an easy way to reduce energy use.

- ♦ One of the more “visible” energy efficiency projects to take place is the replacement of all Hazen Drive parking lot lighting, to include the John O. Morton building with light-emitting diode (LED) lighting.
- ♦ With the replacement of more than 1,500 lighting fixtures in the district patrol facilities, it is expected to provide an immediate energy savings of 30%.
- ♦ Electricity use in state-owned buildings equates to 64% of the states total energy bill totaling just under \$14,000,000 !
- ♦ During the 1970s, total U.S. electrical consumption increased 4.2% per year. In the 1980s, it grew only 2.6% annually, dropping to 2.3% in the 1990s. Current projections are 1% per year. That trend is partly a result of ongoing improvements in efficiency.

Commissioner’s Column

The Governor’s energy management annual report for FY 2010 shows an over-all reduction in energy use. The recently released report detailing energy use in state agencies shows that energy use in state-owned buildings has declined by 16% since FY 2005 (the baseline year) when measured on a per square foot basis! NHDOT played a major role in contributing their part to the reduction, coming in at 14% reduction. This meets and exceeds the Governor’s goal set in 2005 of reducing energy use in state facilities by 10%.

Congratulations and keep up the excellent work.

- George N. Campbell, Jr.

ENERGY SAVING TIPS

- Re-using paper reduces demand for the wood, water, and energy resources that go into producing new paper.
- If you find yourself recycling lots of one-sided documents, consider creating a separate bin for these sheets. Then reuse them for draft print jobs, note-taking, or your kids’ artwork.
- For each ton of paper that is recycled, at least 17 trees and 7,000 gallons of water are saved.

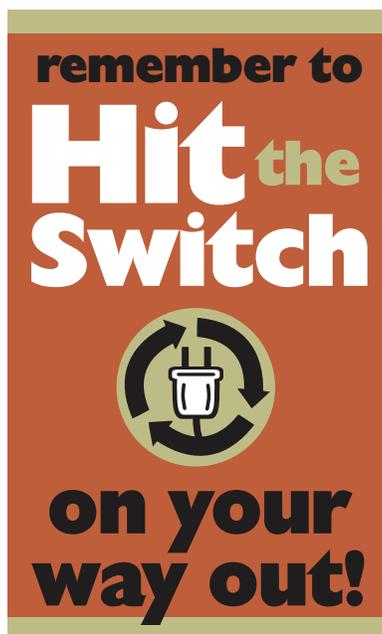
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Energy Saving Device for Water Coolers

Jack Ferns, through the state energy manager, Karen Rantamaki has provided DOT with TORK devices to be used with water dispensing units in our District Offices and Patrol Sheds.

As a trial run, Bureau 58 has programmed and used one for about 3 weeks. Phil Huntley in the Well Replacement section brought in his "Kill-A-Watt" meter to determine the kilowatt use 'with' and 'without' the device. After performing some calculations, he has determined that the device will save approximately \$300 in electrical costs per year/per unit.

Please program and use these devices in your District Office and Patrol Sheds. The devices have several pre-programmed weekly formats for Monday-Friday, or Monday-Saturday, etc. which speed up the programming process.



Test Your Energy IQ...

- Q.** In 2008, approximately how much of the oil used in the U.S. was imported?
- 25%
 - 50%
 - 66%
- A.** A. In 2008, the U.S. imported about 66% of its oil supply. This percentage is expected to grow even higher over the next two decades.
- Q.** Most of the world's energy originates from which two primary sources:
- Solar radiation and nuclear processes
 - Oil and natural gas
 - Wind and water
- A.** A. The energy we capture for use on Earth comes largely from the Sun or from nuclear forces local to our own planet.
- Q.** Which of the following is not a primary energy source?
- Oil
 - Wind
 - Electricity
 - Solar
 - All of the above
- A.** A. Electricity is a secondary energy source because it can only be produced from the use of primary energy sources such as coal, natural gas, or nuclear reactions.
- Q.** What percentage of America's total energy came from wind in 2008?
- 0.5%
 - 2%
 - 7%
- A.** A. In 2008, wind accounted for 0.5% of America's energy portfolio.
- Q.** The consumption of energy in the United States is projected to rise by how much between now and 2030?
- 8%
 - 13%
 - 55%
- A.** B. U.S. consumption of energy sources is projected to rise by 13% between now and 2030.
- Q.** The United States is home to how many of the world's automobiles?
- 1/10
 - 1/3
 - 3/4
- A.** A. With less than 5% of the world's population, the United States is home to one-third of the world's automobiles.



Contact Us:

Please send us an e-mail with your comments, suggestions and feedback to: fbuczynski@dot.state.nh.us



Energy web sites:

sunspot.nh.gov/energysystem/default.aspx
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