Little Known Energy and Conservation Facts

(Information is provided by the National Energy Foundation and the APS Energy Conservation Rebate Program)

1. DOE estimates that 25% to 30% of all the energy used in public schools across the U.S. is wasted. For APS that is equal to over $1.8 million dollars.
2. Turning off the lights in one classroom for one hour keeps over two pounds of pollutants out of the environment.
3. APS electric bill is over $7,000,000 each year.
4. The United States has about 5% of the world's population, yet we consume about 25% of the world's energy!
5. An open fireplace damper can let 8% of your heat escape through the chimney.
6. Americans use twice as much energy as necessary to heat their homes.
7. If all the teachers in APS would turn their lights off for lunch and prep the district would save over $220,000 each year in electricity.
8. It takes 16 times more energy to make a new aluminum can than it does to recycle one.
9. Recycling one-aluminum saves enough energy to power a computer for 3 hours.
10. Only about 700 paper bags can be made from one 15-year old tree.
11. A good old-fashioned clothesline is still the most energy efficient way to dry clothes.
12. APS used about 642 million gallons of water each year, If you were to fill 642 million 1-gallon milk cartons and lay them end-to-end they would stretch across the United Stated 52 times.
13. The more insulation your home has the more energy and money you'll save.
14. Natural gas is used to heat over half the homes in the United States.
15. Paint, plastic, and ink are products of natural gas.
16. APS spends more money on energy bills than it does on educational material.
17. Using a broom, instead of a hose to clean driveways and sidewalks saves hundreds of gallons of water each year.
18. The dishwasher uses 80% of its energy just to heat the water.
19. Did you know your TV is using electricity even if it is turned off!
20. The typical Americans throw away 60 pounds of plastic packing each year.
21. To produce one pound of butter, 10 gallons of water is required.
22. About 75% of the water we use in our homes is used in the bathroom.
23. Refrigerators in the U.S. consume equivalent of more than 50% of the power generated by all of our nuclear power plants.
24. Mercaptan is an odor that is mixed with natural gas for your protection.
25. Lights consume about 20% of all the energy used in the United States.
26. A ¼ inch crack under your front door will waste as much energy as a 2" X 2" hole in your wall.
27. If we all installed "low-flow" showerheads, we could save billions of gallons of water every year.
28. A gallon of paint or a quart of motor oil can pollute 250,000 gallons of drinking water.
29. 2 gallons of tap water is needed to make 1 gallon of bottled water.
30. If we all recycled all our Sunday papers, 500,000 trees could be saved each week.
31. Of the natural gas used in the home, 65% is for heating.
32. A 10-minute shower can use more than 50 gallons of water.

33. If all the coal used to produce the energy used by the United States was on one train, it would be long enough to stretch around the world 3 times.
34. The junk mail Americans receive in one day could produce enough energy to heat 250,000 homes.
35. Every year Americans throw away enough office paper to build a wall 12 feet high stretching from LA to NY.
36. At the rate Americans are generating garbage, we need 500 new dumpsites every year.
37. Of all the fresh water on earth, 99.5% is in icecaps and glaciers.
38. Over a billion trees are used to make disposable diapers every year.
39. Synthetic fibers for plastic are manufactured from natural gas.
40. Americans buy over a billion incandescent light bulbs every year. That's equal to 3 acres of bulbs a day.
41. Compact florescent bulbs last 5 times longer than a conventional bulb and uses 70% less energy.
42. Electricity as an energy resource is the only recourse that can not be stored or saved like COAL – OIL – WATER – NUCLEAR. But we expect it to be there at the flip of a switch. Electricity must be produced and used instantaneously!
43. Americans concern about "Energy Conservation" is directly related to the cost of energy!
44. Each man, women and child in the United States uses the energy equivalence of 2,500 gallons of oil a year. A family of 4 would use 10,000 gallons of oil a year, which is equal to filling the family car with 27 gallons of gas every day for a year.
45. The world population used 70 million gallons of oil each day. Of that 70 million gallons a day the United States used 20 million gallons of oil each day of the year.
46. The average 34-watt florescent bulb uses about $7.24 worth of electricity each year based on normal office/classroom use. How many bulbs do you have in your classroom, offices, halls, restrooms, lounges, and workrooms? Do you really need them all?
47. Turning lights out 2 hours earlier each day at your school can save as much as $500 per month or $5,000 each school year. (based on 1,000 light fixtures).
48. Turning lights off in one classroom for one hour keeps over 2 pounds of pollutants out of the environment.
49. Lighting accounts for 20% to 25% of all electricity consumed in the United States. An average household dedicates 5% to 10% of its energy budget to lighting, while commercial establishments and schools consume 20% to 30% of their total energy just for lighting.
50. The Sandia Cluster, in its first year of energy conservation, saved the energy equivalent of 102 average New Mexico households.
51. To provide enough electricity each month for 1 household in New Mexico takes about 660 pounds of coal.
52. Imagine how much energy your family car would use in 156 years! That is how much the world uses every second of every day. In the time it takes you to snap your fingers, the world uses the equivalent of 85,000 gallons of gasoline!
53. Regular faucets use 3 to 7 gallons per minute of water, assuming 20 minutes of faucet usage per day that's 60 to 140 gallons of water each day or 1,800 to 4,200 gallons each month for each household. Low flow faucet can cut that usage in half!
54. Each computer in the district uses approximately $34.00 of electricity each year. Almost 75% of that cost is just to operate the monitor. It is estimated the district could save over $175,000 if just the monitors were set up to go into the sleep mode when not used.
55. Everyday in the United States we withdraw 340 billion gallons of fresh water from streams, reservoirs, and wells – an amount equal to 1,000 gallons of water per person per day.
56. Electrical energy used to power lights, computers, TV's, etc., is generated by power plants. These power plants use coal, oil, natural gas, or nuclear fuel to run them.
57. The electricity generated by power plants is distributed through high power transmission lines all the way to your school or house.
58. The Albuquerque Public School District pays over $12,000,000.00 a year for all its utility service. That is a "Million dollars a month." Or $33,333.00 each day for utilities to run our schools.

59. The Environmental Protection Agency estimates that an active energy conservation program can save as much as 30% of energy consumption.

60. As much as 33% of our electric energy is used for lights or about $2,000,000.00.

61. Turning off the lights in one classroom for one hour keeps over two pounds of pollutants out of the environment.

62. One classroom uses about one kilowatt of electricity per hour. The cost of one kilowatt is about eight cents (it actually ranges between 4.3 cents to 13.5 cents depending on the utility company and the rate being used). Eight cents per hour seems very small until you start multiplying. Eight cents times the number of hours the lights are on in one school day (an average of 10 hours) equals 80 cents. This times 180 school days equals $144.00. If the average daily use of lights were reduced to nine hours per school day the savings would be $9.00 per classroom for the school year. This still may not seem like much until you realize that we have over 3,400 classrooms in our district. If every classroom could save one hour of use each day (by turning off lights when not needed - when gone to lunch, outside activities, after school, etc.), the district could save $220,000.00. This is how a little bit can add up to making a big difference.

63. Kilowatt - 1000 watts. A unit of measure for an amount of power. Light bulbs usually specify how many watts they use. The standard fluorescent light bulb in our schools is 34 watts.

64. Kilowatt-Hour - The amount of power (kilowatts) used in one hour (kWh).

65. Power Plant - a building that houses machines that convert natural resources, such as oil or coal, into electricity. Coal or oil is burned to create heat that produces steam. The steam turns large generators that produce electricity.

66. Pollution - the waste by-products of burning oil or coal (smoke particles and gases) that are released into the environment. This is the air pollution that is generated by producing electricity. This kind of pollution can also find its way into the earth's water resources.

67. Energy Conservation - saving energy by turning of lights and appliances when not needed. Preventing energy waste.

68. Energy Waste - energy that is used by lights, air-conditioning, or other appliances that are not being used for any meaningful purpose. Examples include leaving the lights on in an unoccupied room or leaving the A/C on with doors or windows open.

69. Turning lights out 2 hours earlier each day at your school can save as much as $500 per month (based on 1000 light fixtures)

70. Our school district used over 640 million gallons of water each year.

71. The 71 million computers and monitors in America use more electricity than all other forms of office equipment combined.

72. Using the known amount of available oil and the present rate of consumption, how long would it be before all that oil is used up? - **Answer:** The length of time is 40.6 years. So, any person under the age of about thirty or forty would be likely to have to face a world without any oil.

73. The United States has about 71 million PCs and monitors at work. The energy these computers use is equal to the combined electrical generation of New York State's 6 nuclear power plants in 2001.

74. Computer monitors waste over $900 million in electricity per year because:
    - 60 % of all computers and monitors are left on at night!
    - 40% of all monitors are not enabled for power management!
    - This electricity wasted is equivalent to 9 million tons of carbon dioxide emissions per year or the emissions of 1.5 million automobiles!

75. If all the teachers in APS would turn their lights off for lunch and prep the district would save over $220,000 each year in electricity.

76. For every 1,000kWh saved in energy use we also save 600 gallons of water to make the electricity. Which means you, APS, saved over 2,828,113 gallons of water!

77. A study done in Canada revealed that students that took tests in natural light vs. artificial light scored 31% higher.
78. Establish a habit of turning room lights off when a room is going to be empty even for just a few minutes.
79. Compact florescent light bulbs saves money on energy costs using 75% less energy and labor costs, they can pay for themselves in less than a year.
80. "LED Exit Lights" are as much as 75% more visible than traditional exit lights, cuts energy costs by 90%, and can last up to 10 years and saves on labor costs too!
81. On average for every kilowatt of electricity we use we also use ¾ of a gallon of water.
82. One cow produces enough methane gas in a 24 hour period to provide the power the average car 38 miles.
83. There are approximately 55 million office computers in the U.S. The EPA estimates that over 11 billion kWh could be saved through monitor power management. This would amount to $935 million per year, enough energy to power over one million households for a year, CO2 reductions equivalent to the emissions from 1.5 million cars or planting 2.5 million acres of trees.
84. Recycle newspapers. Paper made from recycled paper uses about one-third less energy than paper made from raw materials.
85. Recycle glass bottles and jars. Glass made from recycled glass also uses about one-third less energy than glass made from raw materials.
86. Recycle steel and aluminum cans and aluminum foil. Aluminum cans made from recycled aluminum use 90% less energy than aluminum made from raw materials.
87. Buy products made from recycled material. Look for the recycle mark, three arrows that make a circle, on the package.
88. Did you know every day of school the District busses drive the equivalent in mileage of "Once Around The World", and they do this every school day!
89. If you connected all the natural gas lines in the U.S. end-to-end it would be long enough to go to the moon and back 4 times.
90. Recycling 1 aluminum can saves enough energy to watch TV for 3 hours.
91. The world uses 175 million barrels of oil each day or 85,000 gallons of gas each second of each day. Based on these numbers the United States used 21,250 gallons of gas each second of each day.
92. Over 90% of all the energy we use in the United States comes from non-renewable resources like: Coal – Oil – Nuclear Fission.
93. With a click of a mouse, by setting the stand-by mode on computer monitors at school can save up to 20,000 kWh for every 100 computers. At 10 cents/kWh a school can save up to $2,000 a year. That's enough energy to power 110 households for one month!
94. Off all the energy that a light bulb uses, how much do you think actually turns into light? Only 1/10! The rest is waste, because it turns into heat instead. That's why a bulb is so hot after it's been on for a while.
95. If a 100-watt bulb is on for half a day, every day, for a year it can use enough electricity to burn almost 400 ponds of coal.
96. There is an amazing light bulb called a CFB or Compact Fluorescent that uses less than ¼ of the energy of a regular bulb, and lasts 10 times longer.
97. It takes 28 watts of energy to remove the heat generated by 1 - 100 watt light bulb!
98. If everyone in the United States changed out just one light to one that is a CFB we would save enough energy to light 7 million homes and prevent greenhouse gas emissions equivalent to 1 million cars.
99. Of all the energy that an incandescent bulb uses, how much do you think actually turns into light? Surprise: Only 1/10 ! the rest waste, because it is turned into heat, that's what's why a bulb gets so hot!
100. If a 100-watt bulb is on for a half day, everyday for a year it will use enough electricity to burn almost 400 pounds of coal. Burning this amount of coal will release nearly a thousand pounds of gasses which cause the Greenhouse effect.

101. Did you know there is a light bulb that uses less than ¼ of the energy of a conventional bulb and lasts 10 times longer, do you know what it is?   Compact Fluorescent Bulb or CFB's.

102. How many bulbs do people use? Walk around your house and count up all the bulbs your family uses. Now imagine that there are 100 million homes like yours, and each of them has the same amount of bulbs! Wow ! !

103. If just 20% of cars used "Fuel Cell Technology," we could cut oil imports by 1.5 million barrels of oil every day! - If a barrel of oil costs us $55.00 we could save over $82,000,000.oo a year! ! !

NOTE: For more information about the APS Energy Conservation Rebate Program please contact Ron Rioux at 765-5950 - ext. 342

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