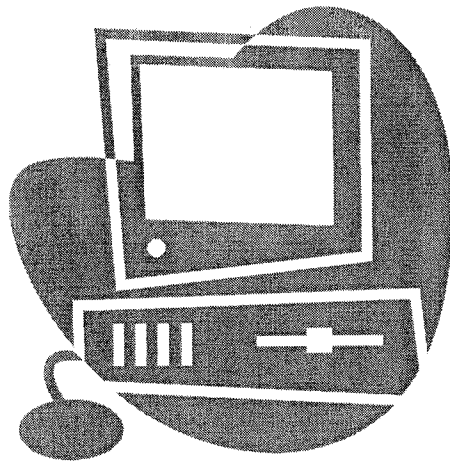


Energy Audit Computers



By: Megan Poulin and Marina Welch

Each day, precious energy is wasted through the carelessness of people. Whether it is from laziness or unawareness, thousands of dollars are wasted each year. This money could be saved if everyone put in a little effort. There are many ways that energy can be wasted; it can be wasted by leaving a light on, leaving a window open at night, or leaving a television on when not being watched. There are some not-so-obvious ways that energy is wasted; many appliances still use energy even when they are turned off. Computers, televisions, microwaves, coffee pots, toasters, and other everyday appliances use energy when they are left plugged in, even if they are turned off. This not only wastes energy, but money. Each school year, our school could save \$725.76 by cutting off power supplies from computers at the end of the day. It only takes a few precious seconds to unplug a computer or to press a button on a power strip. Computers are not the only devices that waste energy and money in our school. Televisions are also the cause of \$363.52 in wasted electricity each year, due to no one unplugging them when they are not in use. If everyone took just a few minutes out of their day to think about these energy wasters, a large amount of energy and money could be saved.

Annex

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 15 computers = 960WH total wasted
- 3.) 960WH total wasted ÷ 1000 = .96 kilowatt-hours (KWH) wasted electricity
- 4.) .96KWH X \$.15 per KWH = \$.144 total dollar amount that is wasted per day
- 5.) \$.144 X 5 days per week = \$.72 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.432
- 7.) \$.72 per school week + \$.432 per weekend = \$1.152 total wasted per week
- 8.) \$1.152 X 45 weeks in school year = \$51.84 total dollar amount wasted per school year

Williamson Center – Junior Wing

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 20 computers = 1,280WH total wasted
- 3.) 1,280WH total wasted ÷ 1000 = 1.28 kilowatt-hours (KWH) wasted electricity
- 4.) 1.28KWH X \$.15 per KWH = \$.192 total dollar amount that is wasted per day
- 5.) \$.192 X 5 days per week = \$.96 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.576
- 7.) \$.96 per school week + \$.576 per weekend = \$1.536 total wasted per week
- 8.) \$1.536 X 45 weeks in school year = \$69.12 total dollar amount wasted per school year

Foyer

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 2 computers = 128WH total wasted
- 3.) 128WH total wasted \div 1000 = .128 kilowatt-hours (KWH) wasted electricity
- 4.) .128KWH X \$.15 per KWH = \$.0192 total dollar amount that is wasted per day
- 5.) \$.0192 X 5 days per week = \$.096 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.0576
- 7.) \$.096 per school week + \$.0576 per weekend = \$.1536 total wasted per week
- 8.) \$.1536 X 45 weeks in school year = \$6.912 total dollar amount wasted per school year

Senior Wing

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 60 computers = 3,840WH total wasted
- 3.) 3,840WH total wasted \div 1000 = 3.84 kilowatt-hours (KWH) wasted electricity
- 4.) 3.84KWH X \$.15 per KWH = \$.576 total dollar amount that is wasted per day
- 5.) \$.576 X 5 days per week = \$2.88 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$1.728
- 7.) \$2.88 per school week + \$1.728 per weekend = \$4.608 total wasted per week
- 8.) \$4.608 X 45 weeks in school year = \$207.36 total dollar amount wasted per school year

Basement

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 22 computers = 1,408WH total wasted
- 3.) 1,408WH total wasted ÷ 1000 = 1.408 kilowatt-hours (KWH) wasted electricity
- 4.) 1.408KWH X \$.15 per KWH = \$.2112 total dollar amount that is wasted per day
- 5.) \$.2112 X 5 days per week = \$1.056 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.6336
- 7.) \$1.056 per school week + \$.6336 per weekend = \$1.6896 total wasted per week
- 8.) \$1.152 X 45 weeks in school year = \$76.032 total dollar amount wasted per school year

Language Rooms and Multi-Purpose Rooms

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 8 computers = 512WH total wasted
- 3.) 512WH total wasted ÷ 1000 = .512 kilowatt-hours (KWH) wasted electricity
- 4.) .512KWH X \$.15 per KWH = \$.0768 total dollar amount that is wasted per day
- 5.) \$.0768 X 5 days per week = \$.384 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.2304
- 7.) \$.384 per school week + \$.2304 per weekend = \$.6144 total wasted per week
- 8.) \$.6144 X 45 weeks in school year = \$27.648 total dollar amount wasted per school year

Computer Labs

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 70 computers = 4,480WH total wasted
- 3.) 4,480WH total wasted ÷ 1000 = 4.48 kilowatt-hours (KWH) wasted electricity
- 4.) 4.48KWH X \$.15 per KWH = \$.672 total dollar amount that is wasted per day
- 5.) \$.672 X 5 days per week = \$3.36 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$2.016
- 7.) \$3.36 per school week + \$2.016 per weekend = \$5.376 total wasted per week
- 8.) \$5.376 X 45 weeks in school year = \$241.92 total dollar amount wasted per school year

Offices and Teacher Rooms

- 1.) 4 watts when computer is left plugged in X 16 hours when computer is left plugged in when it should be unplugged = 64 watt hours (WH) of wasted electricity for one computer
- 2.) 64WH of wasted electricity X 13 computers = 832WH total wasted
- 3.) 832WH total wasted ÷ 1000 = .832 kilowatt-hours (KWH) wasted electricity
- 4.) .832KWH X \$.15 per KWH = \$.1248 total dollar amount that is wasted per day
- 5.) \$.1248 X 5 days per week = \$.624 total wasted per school week
- 6.) Repeat steps 1-4 for 48 hours left plugged in during weekends = \$.3744
- 7.) \$.624 per school week + \$.3744 per weekend = \$.9984 total wasted per week
- 8.) \$.9984 X 45 weeks in school year = \$44.928 total dollar amount wasted per school year

Money Wasted

Annex = \$51.84

Williamson Center – Junior Wing = \$69.12

Foyer = \$6.912

Senior Wing = \$207.36

Basement = \$76.032

Language Rooms and Multi-Purpose Rooms = \$27.648

Computer Labs = \$241.92

Offices and Teacher Rooms = \$44.928

\$725.76 is wasted every school year by leaving the computers plugged in when turned off.