

ENERGY REPORT CARD

January 2016

HOT WATER JUST GOT COOL!

The hot water used by staff and students at Wright Elementary School just got a little bit cleaner. It's nothing that they would have noticed because there was nothing wrong to begin with. It's cleaner be-



cause the building's hot water is now being heated by the sun!

Recently, DMPS installed a solar hot wa-

ter collection system on the roof of Wright Elementary. The system uses a series of solar collection panels to heat water stored in a tank in the school's mechanical room. This "free" hot water is then added to the building's existing hot water heater, significantly reducing the amount of energy required to bring the school's hot water up to the required temperature. Given the successes seen with the system at Wright, the DMPS Energy Team will be working to roll out similar systems at other buildings throughout the District. Stay tuned for more!

Proud to be ENERGY STAR certified!



Total number of U.S. schools: National Center for Education Statistics.

Total annual energy expenditures of U.S. schools: *Guide to Financing EnergySmart* Schools, U.S. Department of Energy.

Total school percentage of U.S. greenhouse gas emissions: National Academies of Science.

Total U.S. greenhouse gas emissions: U.S. EPA Inventory of U.S. Greenhouse Gas and Sinks: 1990–2013.

Coal-fired power plant and home energy use equivalencies: U.S. EPA Greenhouse Gas Equivalencies Calculator, U.S. EPA.

Total cost and energy savings of ENERGY STAR certified schools: U.S. EPA ENERGY STAR program.

A Few Comments about Energy Management/Conservation from Bill Good, COO

Occasionally I hear some negative comments about Energy Management. Most know that mechanical issues/breakdowns are going to happen. These issues are not related to Energy Management. We have shared previously that what we don't know, we can't fix. If we do know and problems continue, I hope all realize that they need to let me know directly. Many are very good about this.

Energy use <u>directly</u> impacts our general fund, which you know is mostly staff salaries. It is a community expectation that we optimize our resources. This isn't about any one person, it is all of us. Each of us can make a difference.

Thank you for your help and understanding.

Mann Renovations

Renovations are underway at Mann, the District's last full-facility renovation project. General construction activities are starting in January 2016 and will be completed in time for the 2016/2017 school year.

A few of the renovations/upgrades Mann will receive are:

- Geothermal heating and cooling
- Variant refrigerant flow
- LED lighting inside and out
- High efficiency windows and doors
- New, better insulated roof



New high efficiency windows at Mann

Busted! 5 Energy Myths Exposed

Some ideas are so widely held they appear to bear little scrutiny or even a second thought. While often factual, such common wisdom may be based on outdated or false information. Widespread misconceptions about energy use can increase utility bills and reduce comfort. Here are five energy myths that may be costing you.

 Setting the thermostat higher or lower will heat or cool a room faster.

Furnaces and air conditioners work at the same speed, no matter what the thermostat setting. In fact, more energy may be wasted as the system continues to run to reach the further set point.

2. Leaving lights on uses less energy than turning them on and off.

In most cases, the small surge of power needed to turn a light on is much less than the power that is wasted by leaving it on when it's not needed.

3. Closing off vents will reduce heating and cooling costs.

Closing vents is not a good way to save on energy costs. Heating and cooling systems are designed to distribute air evenly; closing vents throws the system off balance. This causes pressure to build up, resulting in duct leaks that waste energy.

4. Leaving a ceiling fan on will cool a room.

Ceiling fans circulate air making your skin feel cooler. This allows you to save energy by raising the thermostat. However, they don't cool the air. Leaving them on in empty rooms wastes energy.

5. Hand washing dishes is cheaper than using a dishwasher.

It's widely believed that dishwashers are convenient, but use more water and energy than hand washing. In fact, washing a typical load of dishes in a dishwasher uses 37 percent less water. Also, using a dishwasher, rather than hand washing, can cut your annual energy costs by more than \$40, according to ENERGY STAR.

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THE DMPS ENERGY TEAM WILL SOON BE ON TWITTER! STAY TUNED FOR MORE INFORMATION AND HOW TO FOLLOW US!!



- A hot water faucet that leaks one drop per second can add up to 165 gallons a month. That's more water than the average person uses in two weeks!
- Every time you open the refrigerator door, up to 30% of the cold air can escape.
- The most efficient appliance in your kitchen is your microwave, which uses just 1/3 of the wattage of most ovens.

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SITE ENERGY USAGE REPORT

riod of previous year.

There was an 16% decrease in the total number of degree days during the com- December 1, 2014 to November 30, 2015 parison timeframe. Degree days provide a way to evaluate the amount of fuel required to heat or cool a building by comparing average daily temperatures to a **Percentage change compared to same time pe**standard temperature of 65°.

Site	Total Energy (mBtu)	kBtu/ SqFt	% Change	STAR Score	Site	Total Energy (mBtu)	kBtu/ SqFt	% Change	STAR Score
Stowe	1,603	28.1	-39.73%	96	Walnut St	7,856	67.5	-10.98%	35
North	10,823	43.4	-33.46%	91	Samuelson	1,976	33.7	-10.93%	91
Van Meter	4,407	76.9	-27.57%	73	Riverwoods	3,392	54	-10.54%	87
Dean Ave	3,288	33.8	-25.84%	75	Jefferson	1,455	31.8	-9.91%	80
Walker St	1,956	43.7	-23.64%	52	Merrill	4,526	48.1	-9.82%	97
Central Campus	26,428	57.9	-23.28%	87	Hiatt	3,475	31.6	-7.45%	89
Studebaker	1,582	34.8	-22.89%	91	Perkins	1,560	26.3	-7.41%	97
Roosevelt	15,756	65.8	-22.18%	74	McKinley	2,634	52.7	-7.41%	86
Smouse	5,188	96.4	-21.77%	45	Carver	2,138	23.4	-7.16%	95
East	23,262	67.5	-21.32%	83	Madison	1,575	37.4	-6.90%	97
Lincoln RAILS	5,951	55.9	-20.52%	53	Lincoln	22,775	72.9	-6.71%	
CNC	11,836	211	-19.85%	N/A	Goodrell	3,073	27.8	-6.63%	
Cattell	1,944	40.7	-19.24%	99	Cowles	1,828	42.7	-6.08%	
McCombs	3,265	37	-19.13%	97	Pleasant Hill	999	24.2	-6.02%	
Phillips	1,995	47.6	-18.88%		Hillis	1,721	29.8	-5.48%	95
Monroe	3,742	50.6	-18.85%		Edmunds	1,524	20.8	-5.19%	
Moulton	6,631	54.5	-18.54%	93		2,100	30.6	-4.40%	95
Harding	4,327	34.5	-17.74%	96	South Union				
Capitol View	2,892	38.2	-17.52%	97	Morris	1,750	24.8	-4.34%	
Hoyt	5,475	54.4	-17.42%	95	Howe	1,346	35	-4.30%	
Willard	2,445	41.2	-16.77%	91	Woodlawn	1,053	22.6	-3.25%	•
Weeks	4,834	43	-16.36%	93	Brubaker	2,426	31	-2.95%	
Central Academy	4,420	51.1	-16.15%	58	Hanawalt	1,497	34.6	-1.43%	92
Prospect	5,062	96.3	-15.63%	42	МсКее	793	18.3	-1.30%	94
Brody	5,798	59.1	-15.32%	88	Wright	1,148	37.9	-1.16%	80

Only buildings with a score of 75 or higher are eligible for ENERGY STAR Certification

1,501

1,657

1,218

2,557

2,960

17,012

1,521

24.8

26.8

22.5

47.9

45.1

56.9

38.8

-13.66%

-12.76%

-12.18%

-12.08%

-11.66%

-11.63%

-11.47%

96

95

99

90

70

88

84

Green = Decrease in energy use

Yellow = Maintained usage within 10%

Red = Increase in energy use

Moore**

Oak Park

Mitchell

Findley

Callanan

Jackson

Park Avenue

Welcome Center*

N/A

2,052

1,192

1,421

1,995

4,981

1,493

953

-1.04%

-0.36%

0.14%

0.39%

2.61%

4.27%

58.82%

N/A

34.5

37.6

32.6

30.7

42.9

32.7

106

N/A

91

67

92

96

90 95

N/A

N/A

Windsor

King

Hubbell

Garton

Hoover/

Lovejoy

Meredith***

Greenwood

Welcome Center has a large increase due to the addition of the walk-in freezer.

^{**}No data available for Moore due to renovations.

*** Hoover/Meredith buildings are combined due to combined meters.