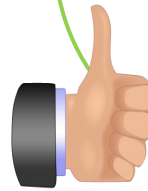


What's in this issue....

District T-8 Re-lamping Project

Recently, Facility Management implemented a large-scale transition from 32-watt T-8 fluorescent lamps to more energy-efficient 25-watt T-8 lamps in a number of the District's facilities. This switch will save the District thousands of dollars per year. Facility Management is also saving money by utilizing District staff to get the job done. More information for the first few finished buildings is attached to this report card.

The District's energy usage to date is down **11.4%** from last fiscal year! Thanks for your help to keep costs down. Flip to Page 3 to see where your building stands.



Get students involved!



Students can learn about the importance of energy efficiency by helping out with an energy audit of your building. Facility Management has created an energy audit form for your students to participate in. The survey is completely voluntary. We understand how busy teachers and principals are and want this to be a learning option. We greatly appreciate any surveys returned to us.

[Click here for the DMPS Energy Audit Form. This particular survey is geared toward elementary students.](#)



Energy Audits Take Building Performance to the Next Level

MidAmerican Energy

- An energy audit identifies cost-saving measures and forms the basis of an energy-management plan.
- The American Society of Heating, Refrigerating and Air-Conditioning Engineers, or ASHRAE, defines three levels of audits, ranging from a simple walk-through to a detailed analysis.
- Audits are performed by consultants, engineering firms, and energy service companies.

An audit can range from a simple assessment to a detailed evaluation including diagnostic testing and data tracking.





Midpoint Results: Renovated DMPS Buildings in Top 25 Nationwide

DMPS is back in the competition, this year competing not only from the energy standpoint but also to save water. Among the 765 buildings nationwide competing for energy and water efficiency, DMPS has two buildings sitting in the top 25 and four in the top 100.

Findley Elementary

- **Third place** at midpoint!
- 26.8% energy reduction
- 14.7% emission reduction
- 2.9% water use reduction



Hoyt Middle School

- **15th place** at midpoint!
- 15.8% energy reduction
- 14.7% emission reduction
- 7.1% water reduction

Midpoint results are based on data from April through September.

Stuebaker Elementary

Last Year's Top Competitor Recognized for Excellence in Energy Efficient Design

The renovation completed in 2013 resulted in a savings of 61% annual kBtu, \$32,137 in annual energy cost savings and an energy incentive of \$111,576 from MidAmerican Energy.

Benefits to DMPS include:

- \$32,137 in annual energy cost savings
- 3.3 year simple payback period
- \$111,576 energy incentive from MidAmerican



Iowa Energy & Sustainability Academy
Des Moines Public Schools

Congratulations to **Larry Beall**, director of IESA who was recently presented with **Iowa Energy Center's Impact Award**

ENERGY REPORT CARD

YEAR-TO-DATE SITE ENERGY USAGE REPORT

July 1, 2014-August 31, 2014

Percentage change compared to same time period of previous year

Site	Total Energy (MBtu)	kBtu/SqFt	% Chg		Site	Total Energy MBtu	kBtu/SqFt	% Chg	
Roosevelt	938	4	-50.1%		King	134	2	-9.1%	
McKinley	231	5	-30.5%		Moulton	512	4	-7.4%	
Windsor	144	2	-29.3%		Cowles	148	3	-6.9%	
Perkins	172	3	-28.3%		Walker Street	200	4	-6.2%	
Park Avenue	220	3	-27.9%		Studebaker	91	2	-5.2%	
Pleasant Hill	94	2	-26.1%		Phillips	180	4	-4.4%	
Lincoln	1,731	6	-25.3%		Stowe	188	3	-3.8%	
Oak Park	218	4	-23.9%		Morris	189	3	-3.3%	
Merrill	320	4	-23.9%		Walnut Street	1,191	10	-3.2%	
Weeks	503	4	-23.3%		Hillis	160	3	-1.2%	
Jackson	160	4	-23.1%		Central Nutrition Center	1,585	28	.10%	
River Woods	390	7	-23%		South Union	256	4	4.3%	
Lovejoy	156	4	-22.6%		Prospect	530	10	4.4%	
Brubaker	297	4	-22.3%		Jefferson	208	5	6.7%	
Harding	294	2	-22%		East	1,661	5	6.8%	
Central Academy	407	5	-21.3%		Howe	184	5	7.4%	
Brody	466	5	-20.6%		Aviation Lab	29	2	7.5%	
Edmunds	166	2	-20.6%		Woodlawn	117	3	9.2%	
Hanawalt	151	3	-20.1%		Moore	69	2	9.7%	
Central Campus	2,090	5	-19%		Capitol View	377	5	11.3%	
Greenwood	200	3	-18.7%		Findley	165	4	14.8%	
Hubbell	223	4	-18.5%		Hoover/Meredith	1,279	4	15.5%	
Van Meter	463	8	-17.4%		McKee	57	1	17.1%	
Callanan	441	4	-15.8%		Garton	321	5	18%	
Madison	213	5	-15.6%		Mitchell	160	5	19.2%	
North	820	3	-14.8%		Hiatt	337	3	21.9%	
Hoyt	324	3	-12.5%		Cattell	203	4	31.2%	
Goodrell	306	3	-12.4%		Dean Operations Center*	281	3	31.7%	
Monroe	298	4	-12.2%		Samuelson	208	4	33.8%	
Willard	214	4	-11.9%		Kurtz	446	4	95.6%	
Carver	297	3	-11.7%		Welcome Center*	108	17	161.2%	
McCombs	329	4	-11.1%						
Smouse	335	6	-9.7%						

*Dean had the addition of the Print Shop this past year, resulting in more energy use than previous year.

*Welcome Center had the freezer addition, resulting in significantly more energy use than previous year.

- Increase in energy use
- Maintained usage within 10%
- Decrease in energy usage

Visit www.dmschools.org for more details of the district's energy mission and building performance. Do you want to share your ideas for saving energy or helping our environment? Or want to let us know about your projects? Tell us about it! Email Michelle.Chalkey@dmschools.org

JACKSON ELEMENTARY SCHOOL

Interior Lighting Upgrades

1,204 = Number of Lamps Replaced

101 Kilowatt-hours = Energy Saved (Day)¹

18,180 Kilowatt-hours = Energy Saved (Year)²

\$10.11 = Cost Savings (Day)³

\$1,820 = Cost Savings (Year)^{2,3}

\$38,769 = Cost Savings (Lifetime)^{2,4}

¹Based on 12-hour daily occupancy

²Based on 180-day school year

³Based on \$0.10/kilowatt-hour

⁴Based on 46,000-hour lamp life



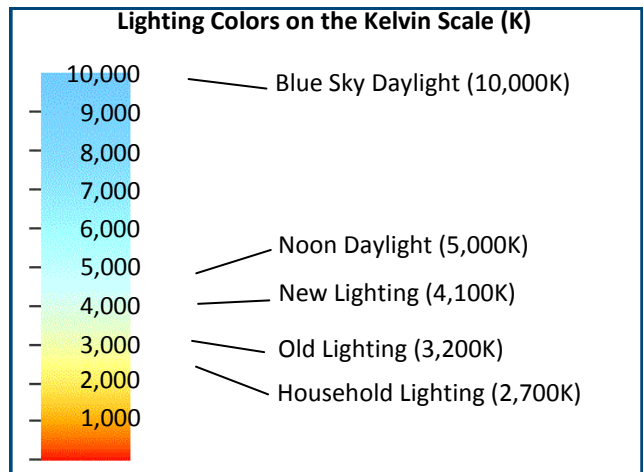
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For many years, classroom and office space lighting has been provided by fluorescent lamps and fixtures. As technologies have advanced, DMPS has periodically updated, and upgraded, the fluorescent lighting to provide better illumination while taking advantage of increased energy savings. Recently, the DMPS Facilities Management Department implemented a large-scale transition from 32-watt T-8 fluorescent lamps to more energy-efficient 25-watt T-8 lamps in many of the District's facilities.

While a reduction of seven watts per lamp may not sound significant, the energy and cost savings over time is quite large when spread out over the tens-of-thousands of fluorescent lamps in use throughout DMPS facilities. DMPS is actively pursuing the use of even more efficient technologies, such as light-emitting diode (LED) lighting; however, when coupling the improved efficiencies of the reduced-wattage T-8 lamps, which are installed by DMPS personnel, with incentives provided by the local utility provider, this transition allows DMPS to rapidly help conserve valuable natural resources, reduce environmental emissions and help redirect funds back towards improving the quality of education for Des Moines's youth.

What Are The Advantages?

The transition being made by DMPS from 32-watt to 25-watt fluorescent lamps will not only result in increased efficiencies, but will also improve the quality of lighting in those facilities impacted by the change. Historically, the fluorescent lamps installed in District facilities had a color temperature of 3,500-degrees Kelvin (K). The reduced wattage lamps being installed have a color temperature of 4,100-degrees K. This results in a slightly "brighter" light that is more like natural daylight. This change in light appearance not only provides a more inviting learning environment, but has actually been shown to improve student learning in some settings.



For additional information, contact:

Dave Berger

david.berger@dmschools.org

(515) 242-7706



RIVER WOODS ELEMENTARY SCHOOL

Interior Lighting Upgrades

1,881 = Number of Lamps Replaced

158 Kilowatt-hours = Energy Saved (Day)¹

28,440 Kilowatt-hours = Energy Saved (Year)²

\$15.80 = Cost Savings (Day)³

\$2,844 = Cost Savings (Year)^{2,3}

\$60,568.20 = Cost Savings (Lifetime)^{2,4}

¹Based on 12-hour daily occupancy

²Based on 180-day school year

³Based on \$0.10/kilowatt-hour

⁴Based on 46,000-hour lamp life



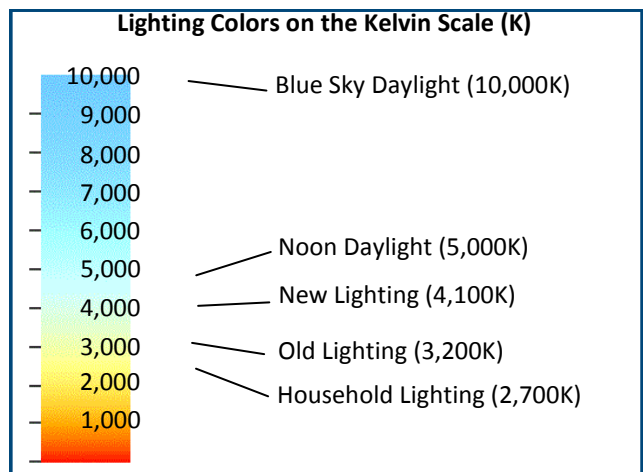
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MORRIS ELEMENTARY SCHOOL

Interior Lighting Upgrades

2,275 = Number of Lamps Replaced

191 Kilowatt-hours = Energy Saved (Day)¹

34,380 Kilowatt-hours = Energy Saved (Year)²

\$19.11 = Cost Savings (Day)³

\$3,439 = Cost Savings (Year)^{2,3}

\$73,255 = Cost Savings (Lifetime)^{2,4}

¹Based on 12-hour daily occupancy

²Based on 180-day school year



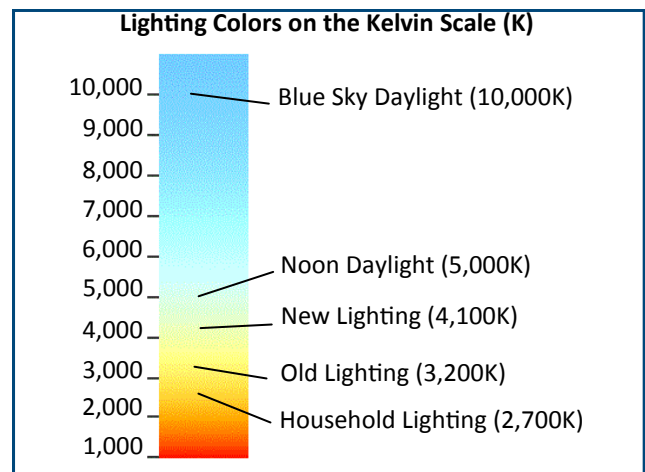
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SAMUELSON ELEMENTARY SCHOOL

Interior Lighting Upgrades

1,500 = Number of Lamps Replaced

126 Kilowatt-hours = Energy Saved (Day)¹

22,680 Kilowatt-hours = Energy Saved (Year)²

\$12.60 = Cost Savings (Day)³

\$2,268 = Cost Savings (Year)^{2,3}

\$48,300 = Cost Savings (Lifetime)^{2,4}

¹Based on 12-hour daily occupancy

²Based on 180-day school year



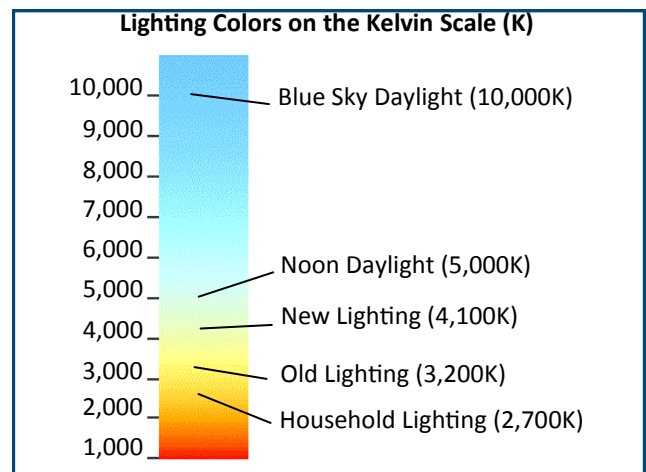
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