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Joe Hallberg, P.E.
President

Schools for Energy Efficiency[®]
(SEE) Program



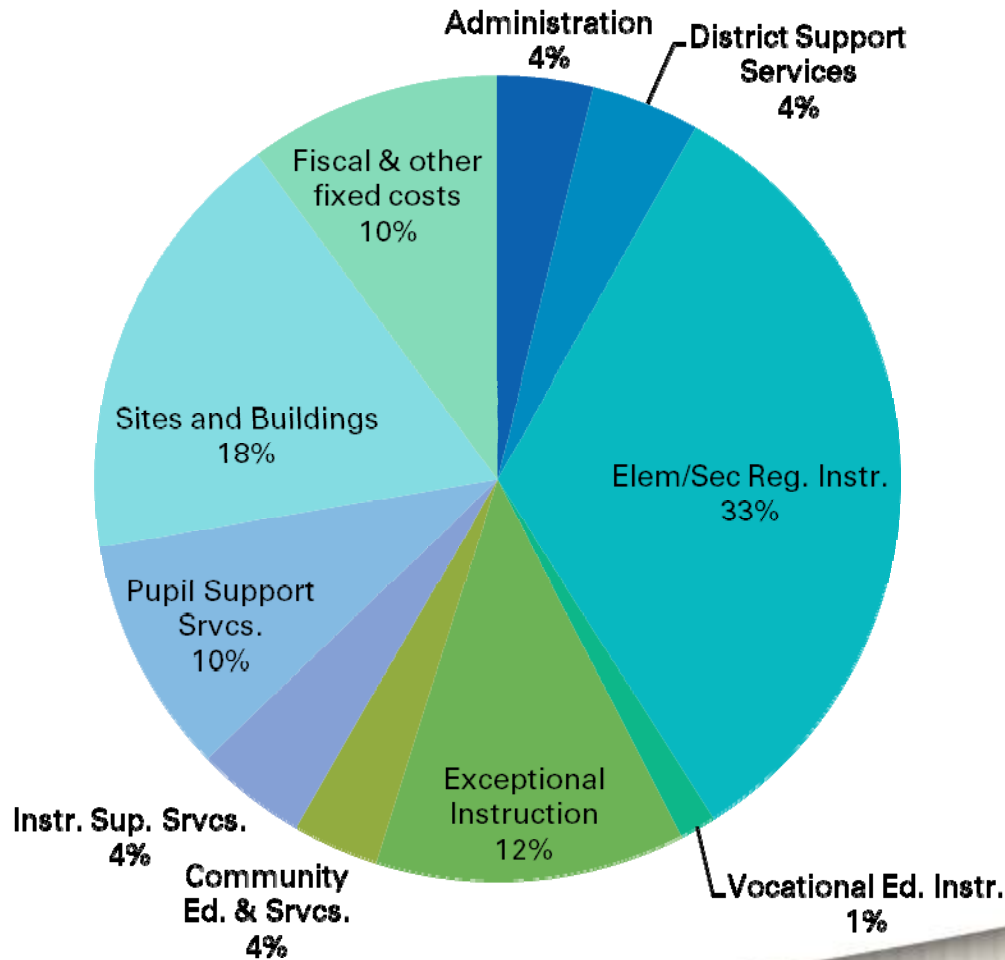
Everyone knows that saving energy...

- **Saves money.** Utility bills are not fixed, so they're an opportunity to cut costs & save jobs.
- **Preserves the environment.** 80% of greenhouse gas emissions are from energy and many nonrenewable resources are used in production.
- **Shows responsibility to community.** Efficient operations demonstrates wise use of taxpayer's or donor's money and shows active leadership on green issues.
- **Educates students.** Energy awareness instills wise habits and teaches students to care about the impact of their actions.

...is the smart thing to do.

MN School district operating budget

FY 02 Expenditures by Program



MN Department of Education 2008

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What is SEE?

- A comprehensive program for reducing energy use in K-12 schools
- Focuses on changing behavior throughout the district with a team approach

Who is SEE?

- Headquarters in St. Paul, MN
- 12 months of initial research and development
- First piloted with Minnesota school districts in 2002
- Available to school districts nationwide
- National award-winning program



Goals

- Reduce energy use by 10%
- Engage students, teachers and staff through active participation
- Achieve recognition through ENERGY STAR® for building and district-wide improvements



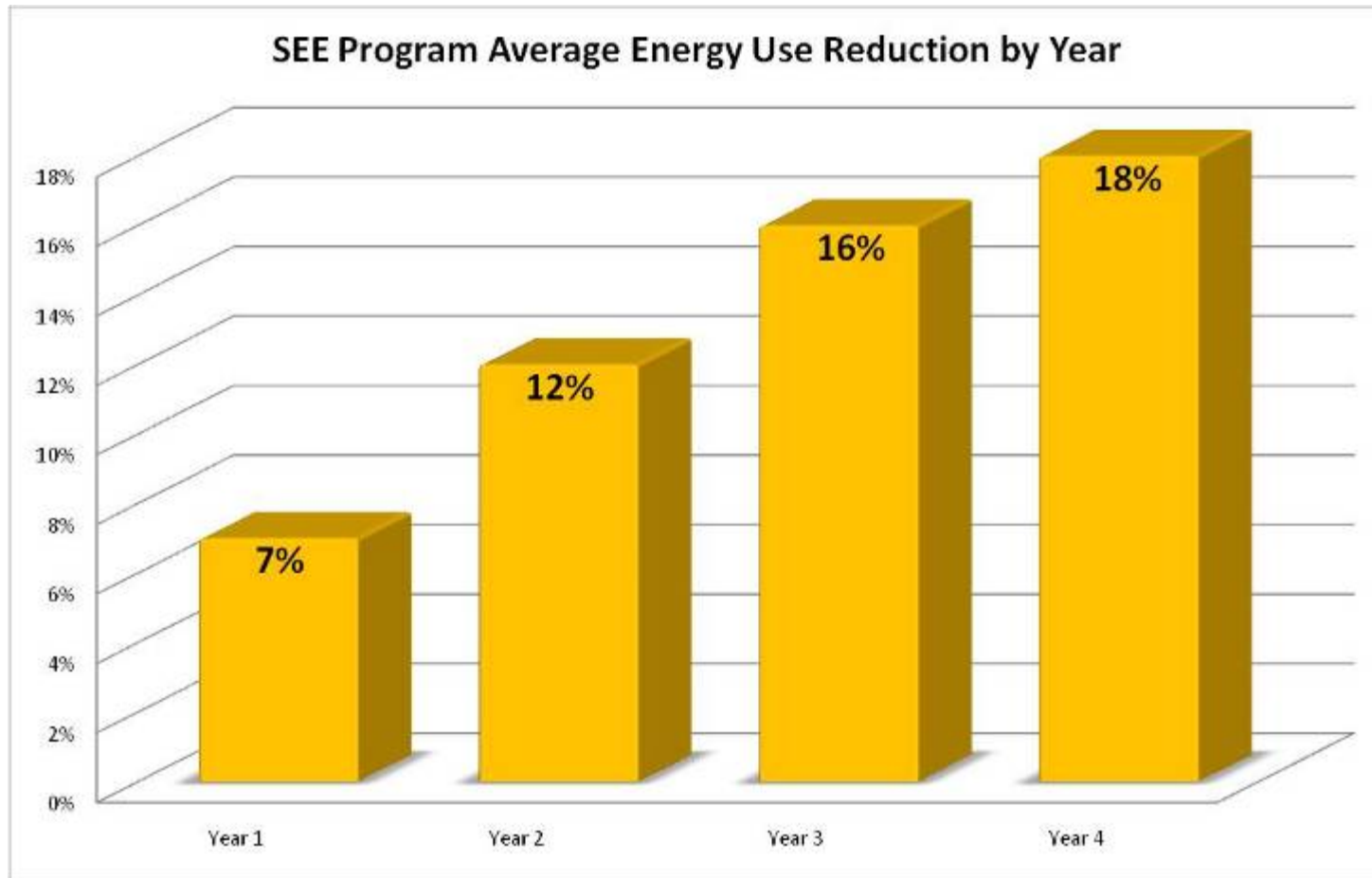
Results

- \$14 million avoided utility costs in just four years
- 12% average energy use reduction
- Nearly 600 participant schools
- Reduced greenhouse gas emissions by 247 million pounds of CO₂, equivalent to: Annual emissions of 20,588 cars or electrical use in 14,889 homes.



Results

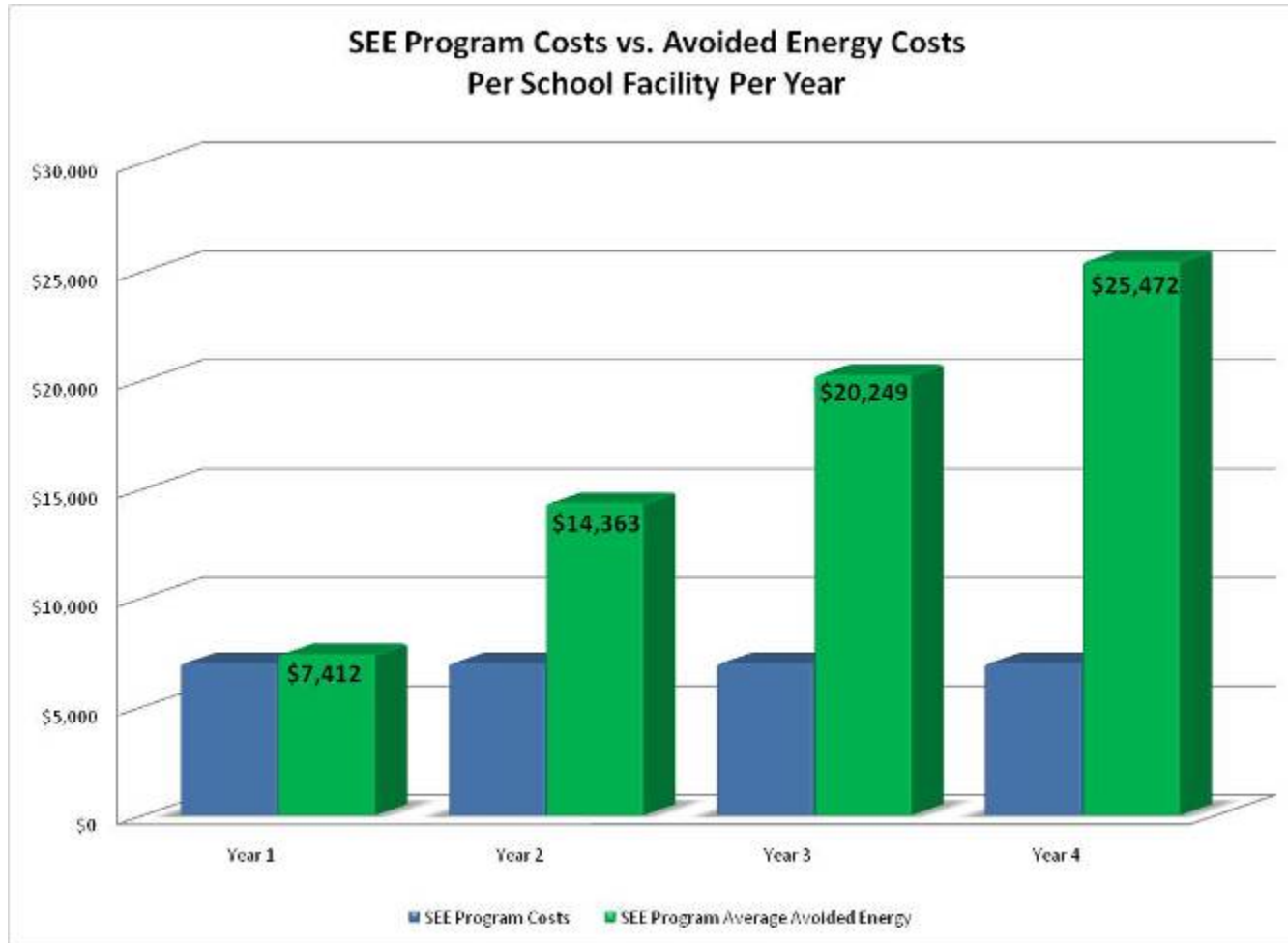
SEE Program Average Energy Use Reduction by Year



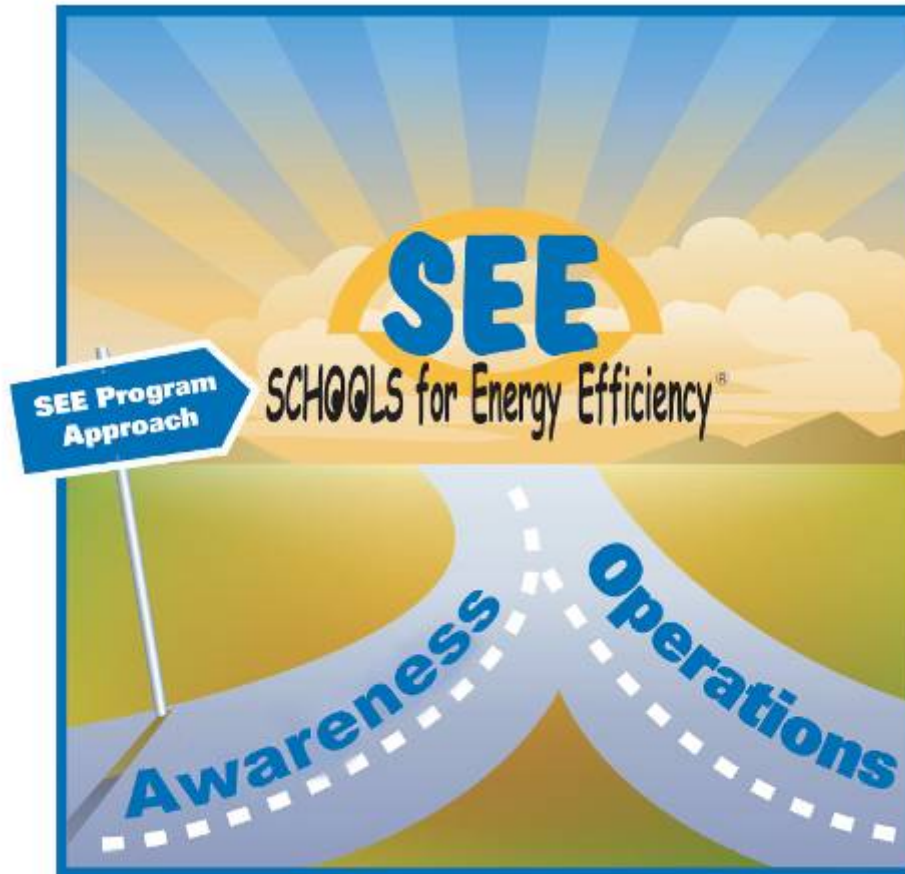
Results

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**SEE Program Costs vs. Avoided Energy Costs
Per School Facility Per Year**



How does SEE work?



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Comprehensive Multi-Year Program

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Year 1	Year 2	Year 3	Year 4	Year 5
You Have the Power	See and Save	Charge Up!	Where is Energy?	Imagine a Better World
				
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What SEE Provides

- Systemized plan with annual energy-saving strategies & objectives
- Awareness & communication materials & student activities
- Training & support
- Measurement & recognition tools



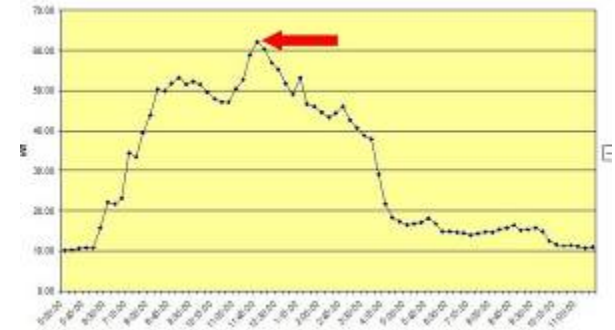
Utility Tracking

Why track utilities?

- Measure results and verify savings
- Find billing errors
- Identify high energy users

Key components

- Establish baseline (historic snapshot) energy use
- Quarterly reports and analysis
- Reports cost avoidance
- Interfaces with ENERGY STAR®



Rate building energy performance on national scale

- SEE districts lead the nation with ENERGY STAR® Leader awards (13 out of 45); organization-wide savings
- Over 100 SEE schools qualify for ENERGY STAR® Labels; among the top 25% most efficient nationally

ENERGY STAR® Recognition

ENERGY STAR Ranking Improvement for SEE Buildings (1-100 on ENERGY STAR Portfolio manager benchmarking software)

	Energy Star Rank at Start of SEE	Current Energy Star Rank	Improvement
Baseline rating and improvement - all districts – all years in SEE	54.83	64.09	9.26
Average improvement of buildings with greater than .25 yr but less than 1 yr of results.	53.28	57.79	4.51
Average improvement of buildings with 2 - 2.75 yrs results.	72.05	78.60	6.55
Average improvement of buildings with 3 - 3.75 yrs results.	51.12	64.07	12.96
Average improvement of buildings with 4+ yrs of results.	52.93	68.28	15.34

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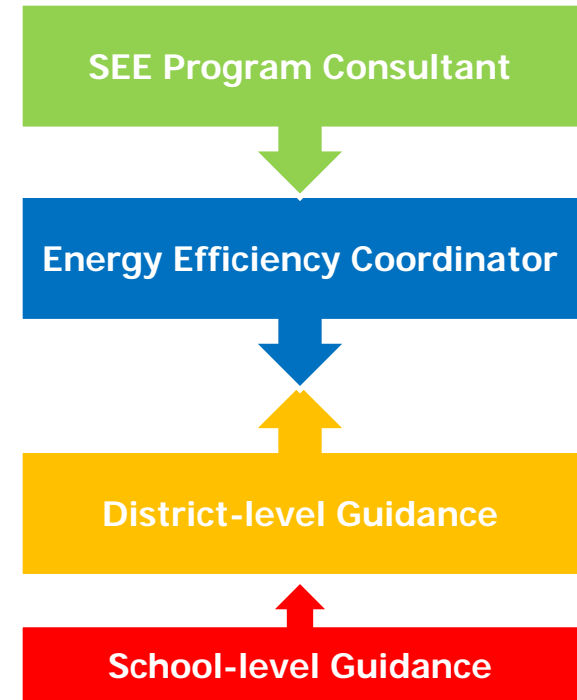
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How is SEE implemented?

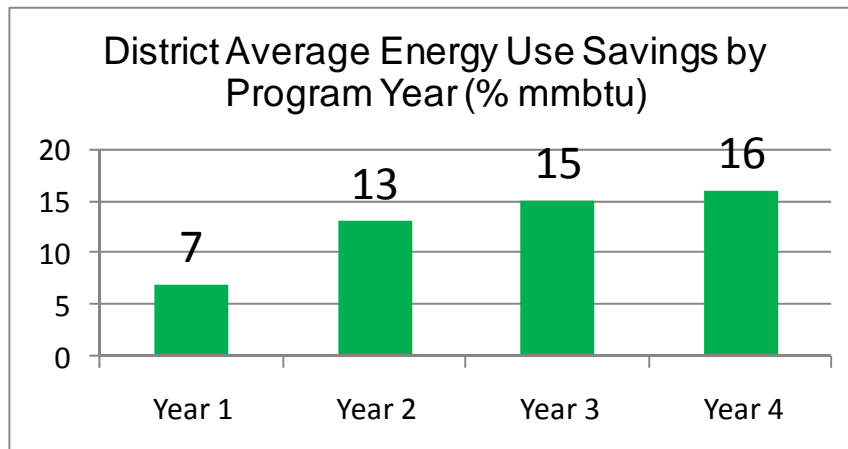
- Managed by the school district
 - Energy efficiency coordinator (EEC) selected by district
- Supported by our SEE staff
 - Program consultants
 - Utility tracking manager



Case Study



- St. Cloud School District
 - 20 buildings
 - ENERGY STAR Leader & ½ buildings qualify for ENERGY STAR Labels
 - \$1,040,050 avoided costs 4yrs



Case Study

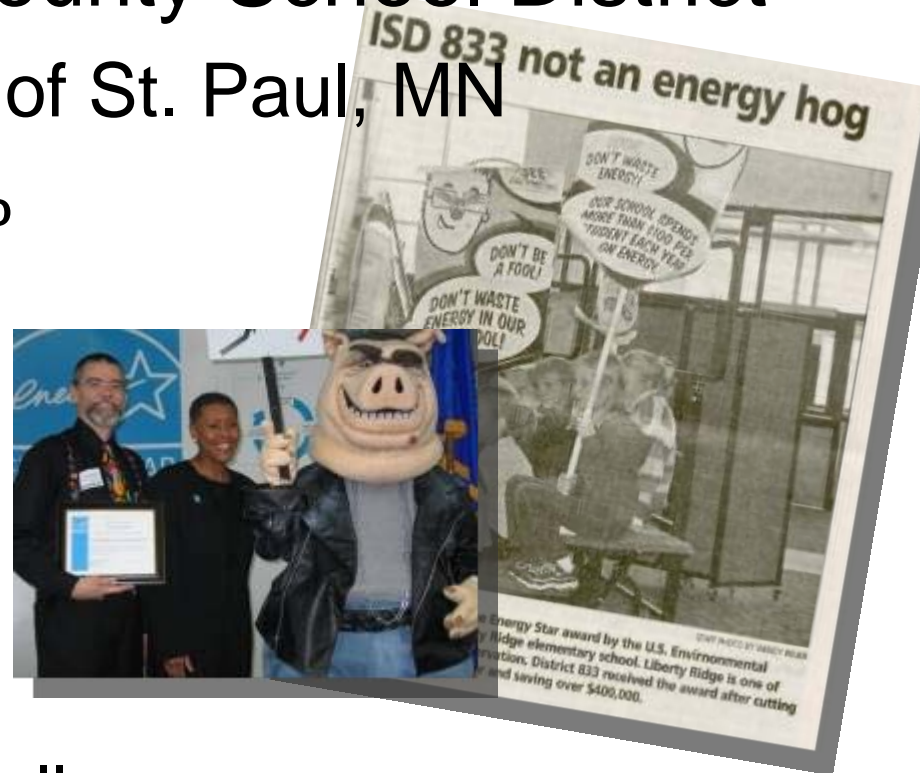
- Columbia Heights School District
 - Just outside Minneapolis, MN
 - Diverse population, low income
 - 5 buildings built in the 1960's
 - All ENERGY STAR Labeled & 2 ENERGY STAR Leader Awards (10% & Top Performer)
 - Reduced energy use 9%
 - \$166,739 avoided costs (3 years)



Case Study



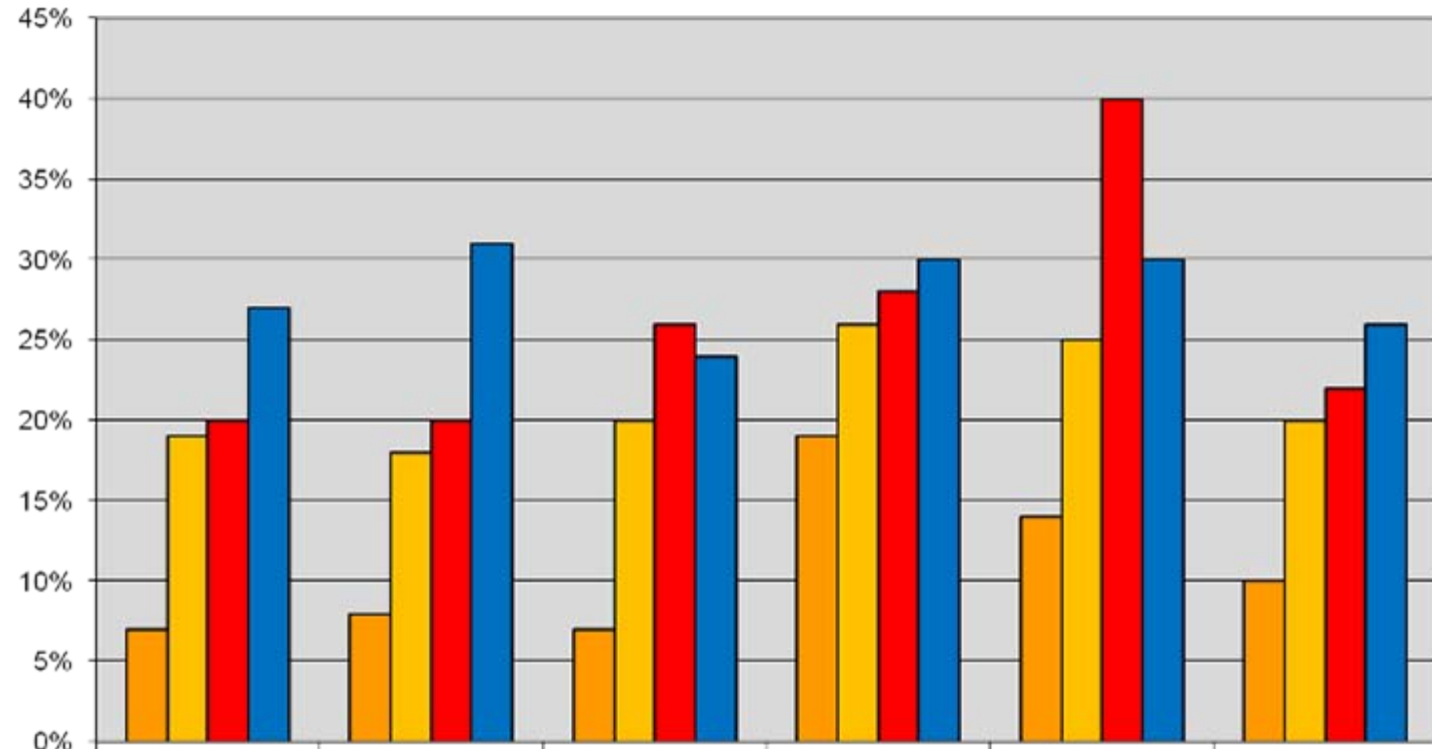
- South Washington County School District
 - Southeastern suburb of St. Paul, MN
 - Average savings 14%
 - \$2 million in cost avoidance (4 years)
 - 22 facilities
 - CO₂ emissions reduced equivalent to 2,527 homes annually
 - ENERGY STAR Leader Award





Case Study

• Cambridge-Isanti School District



■ 04-'05	7%	8%	7%	19%	14%	10.00%
■ 05-'06	19%	18%	20%	26%	25%	20.00%
■ 06-'07	20%	20%	26%	28%	40%	22.00%
■ 07-'08	27%	31%	24%	30%	30%	26.00%



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Case Study



- Buffalo-Hanover-Montrose School District
 - 40 miles west of Twin Cities, Minnesota
 - 9 buildings
 - 23% reduction in 2.5 years
 - \$942,800
 - Reinvested cost savings into asset improvements
 - ENERGY STAR Leader Award & 7 Labeled buildings



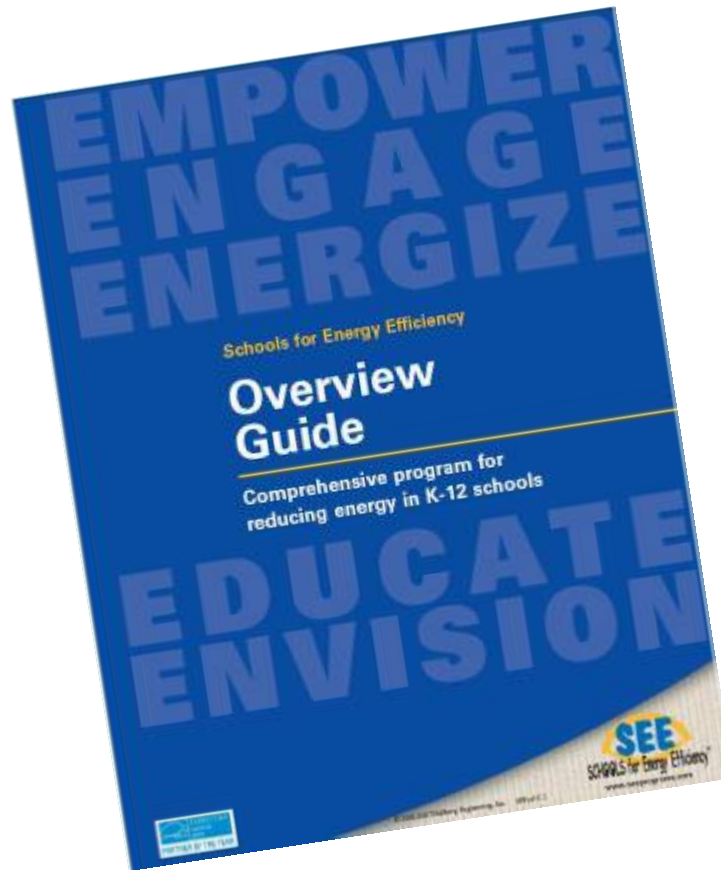
Case Study



- Osseo School District 279
 - Brooklyn Center, Brooklyn Park, Corcoran, Dayton, Hassan, Maple Grove, Osseo, and Plymouth
 - 32 buildings, 5th largest school district in MN
 - Reduced energy use by 12% already in the 2nd Qtr
 - \$321,989 (first 3 qtrs)
 - Joined during tight budget to reduce expenses

SEE districts are successful because they...

1. HAVE A PLAN



2. ENGAGE EVERYONE



3. ASSIGN ROLES



4. RECOGNIZE SUCCESS





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MN Governor wants state buildings to use energy program

Updated: 12-14-2006 08:27 PM
[KAL]-Governor Pawlenty has called on Minnesota schools and businesses to make their buildings more energy efficient.



WATCH VIDEO

Several schools in our area are already using green methods under the Energy Star program.

From light bulbs to refrigerators, you might notice some products have an Energy Star label. They may cost more up front, but your savings come over time because they use less electricity.

But that Energy Star certification can also be placed on buildings. In an age where computers and electronics are a part of nearly every

Weather

WV

CA

WV

WV

BEFORE WE STARTED THIS PROGRAM, EVERY LIGHT IN THE SCHOOL WAS ON.

Mark Glendro, head custodian at Sioux Trail Elementary School of Burnsville

With the flick of a switch, district cut costs, saved jobs

By EMILY DENNIS
emil.dennis@startribune.com

The halls at Sioux Trail Elementary School in Burnsville are a little darker than in some elementary schools.

Sunlight streams into parts of the upper level where there are skylights. But unless students are using the halls or it's a busy winter day, the lights stay off.

Saving on utility costs has been a focus of the Burnsville-Eagan-Savage School District for two years, and the district recently became one of seven in Minnesota to be named an Energy Star Leader by the U.S. Environmental Protection Agency. It also participates in the Schools for Energy Efficiency program (SEEF) run by Hallberg Engineering.

Over the past two years, the district has saved more than \$400,000 in energy costs, and it decreased energy use by 11 percent last year.

"Everybody is used to having so many lights on," said

waged an extensive campaign to get teachers and students to turn off lights when they're not in classrooms. Staff can now conveniently turn off the building without turning on every light.

Staff also turned off computer monitors when they leave for the day, unplug TVs when they leave for vacations and keep lights in the cafeteria and gym off unless they're in use. Each school also has a SEE squad—a group of students who monitor behavior, turn off lights when they see rooms aren't in use and leave notes thanking teachers who remember.

Keeping the heat up

A common way for schools in northern regions to save on utility bills is to turn about \$1.4 million districtwide for one year of gas, electricity, oil and water—is to turn down the heat. Hale and Glendro say they're proud of the fact that their district didn't have to do that.

According to the EPA, seven of the 10 U.S. school districts to receive the Energy Star Leader award come from Minnesota.

School districts make up about half of all organizations receiving the honor, said Michael Zatz, who manages commercial buildings for the Energy Star program at the EPA.

"We want to encourage improvement in energy efficiency at the organization level," Zatz said. "The schools are a great audience for this, because of the learning opportunities that it provides for the students, who are then able to take the messages of energy efficiency home to their parents."

For more information, contact Emily Dennis at 952-461-7600.

DISTRICT'S ENERGY SAVINGS HONORED

EPA recognizes St. Cloud schools' effort to cut consumption, waste

By Drew Anderson
drew.anderson@startribune.com

All those signs and suggestions that people turn the lights off when they leave St. Cloud school mean an ongoing effort. The U.S. Environmental Protection Agency has recognized St. Cloud school district as an Energy Star for its commitment to energy efficiency.

"We focused heavily on behavioral modifications—changing people's habits of turning off lights and wiring of replacing the low energy consumption," said Hale. "All the hands-on engineering that we did helped energy engineering companies in the district's energy and efficiency in the process. It does mean a report on what was saved by using smart energy."

Attention is paid to energy use in each school, with school administrators to turn off lights. The district has continued to re-

duce its energy usage. Hale said. The next step will be to re-evaluate use from computers, said Hale. However, the district's energy conservation drive.

"One of the things we've been trying to do is get all the schools (about) to get into the habit to turn the monitor off every year," Hale said.

A new campaign is starting to help everyone up the side. It includes new posters and staff training.

A \$100,000 bond referendum that voters will vote on Sept. 12 includes money for energy conservation. It would provide money for better energy and green centers at the high schools, Hale said.

St. Cloud is one of five districts in Minnesota to receive the award from the EPA, Burnsville, West St. Paul, South Washington and

Solar

Continued from page 1

It took the school district about a year to get the solar panels installed. The school will be able to use the solar panels to power the school's computers and other electronics.



St. Cloud Junior High School students Ben Norwood, left, and Drew Anderson, right, stand in front of the solar panels installed at the school.

The school is one of the first in the state to use solar panels to power the school's computers and other electronics.

Why? The school district is a leader in energy conservation. The school is one of the first in the state to use solar panels to power the school's computers and other electronics.

Stillwater Area Public Schools Receives EPA's "Energy Star" Leader Award



Members of the Stillwater Area Public Schools staff gathered for a meeting to discuss the school's energy conservation efforts.



Head of Chair George Thede (left) and Keith Lyndon, vice president (right), accept the Energy Star award.

of 75 or better, qualify as ENERGY STAR. Both environmental and part of Business & Administrative is a great thing to do, it is the right

Students, staff rally behind effort to conserve energy

The school district is one of the first in the state to use solar panels to power the school's computers and other electronics.

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ISD 833 not an energy hog



ISD 833 was awarded the Energy Star award by the U.S. Environmental Protection Agency. The school is one of the first in the state to use solar panels to power the school's computers and other electronics.

Everybody is used to having so many lights on, said

SCHOOL REPORT

Cambridge-Isanti School District is seeing success at lowering energy costs



Cambridge-Isanti School District officials and staff members gathered for a meeting to discuss the school's energy conservation efforts.

The school district is one of the first in the state to use solar panels to power the school's computers and other electronics.

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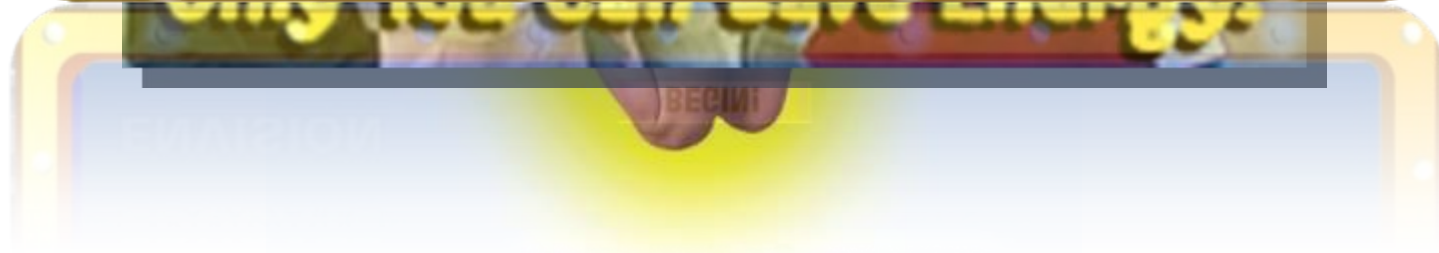
5. HAVE FUN!

MAKE SAVING ENERGY FUN!

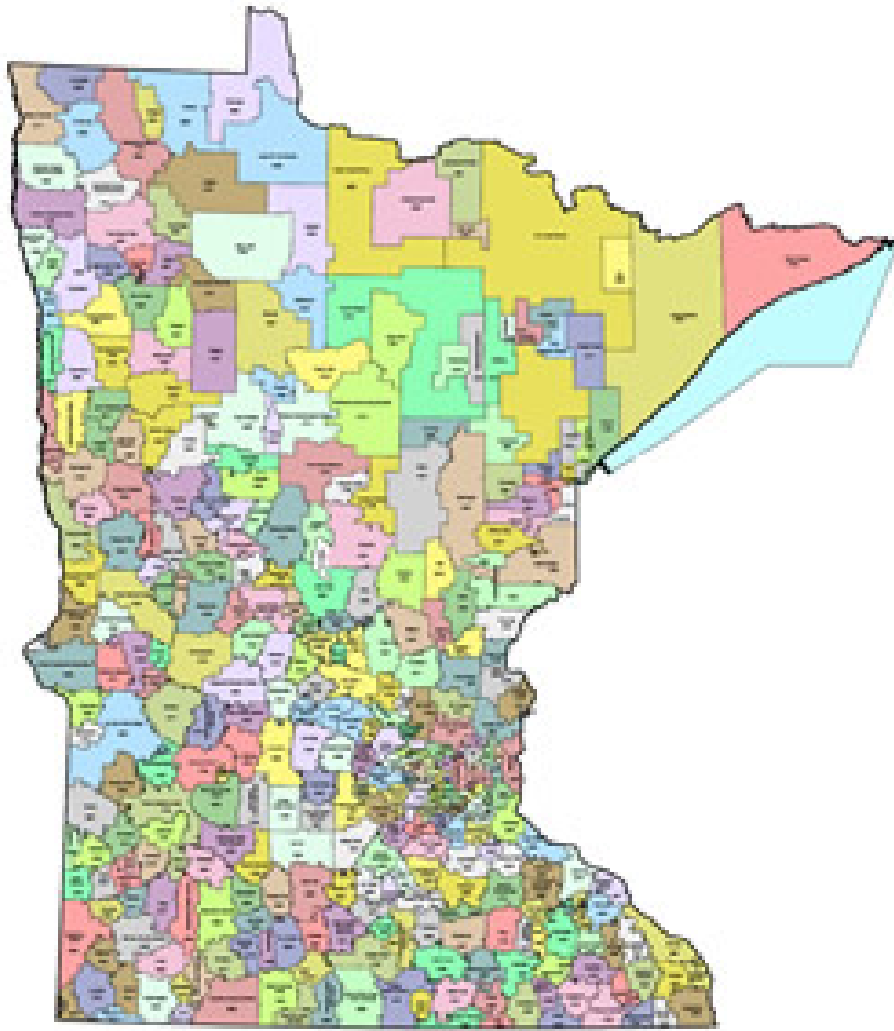
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