

SCHOOLS FOR ENERGY EFFICIENCY[®] (SEE)

**PROGRAM OVERVIEW AND
OUTCOME-BASED INCENTIVE PROGRAM**

February 2, 2011

2011 CERTs Conference

How is SEE Implemented?



Schools for Energy Efficiency[®] (SEE) is a comprehensive program for K-12 schools to save energy and money by changing behavior throughout the district.

The SEE Program

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|--|---|--|--|
| You Have the Power | See and Save | Charge Up! | Where is Energy? | Imagine a World Where... |
|  |  |  |  |  |
| EMPOWER | ENGAGE | ENERGIZE | EDUCATE | ENVISION |

How Does SEE Work?

- SEE teaches Schools a systemized plan with energy-saving strategies and objectives
- Awareness and communication materials and student activities
- Training and support
- Measurement, verification and recognition tools



How is SEE Implemented?

- Managed by the school district
 - Energy efficiency coordinator (EEC) selected by district
 - EEC is taught the skills to succeed
- Continuous mentoring
 - Blueprint for success
 - Thoroughly tested techniques
- Supported by SEE staff
 - Program consultants
 - Utility tracking manager

SEE Program Goals

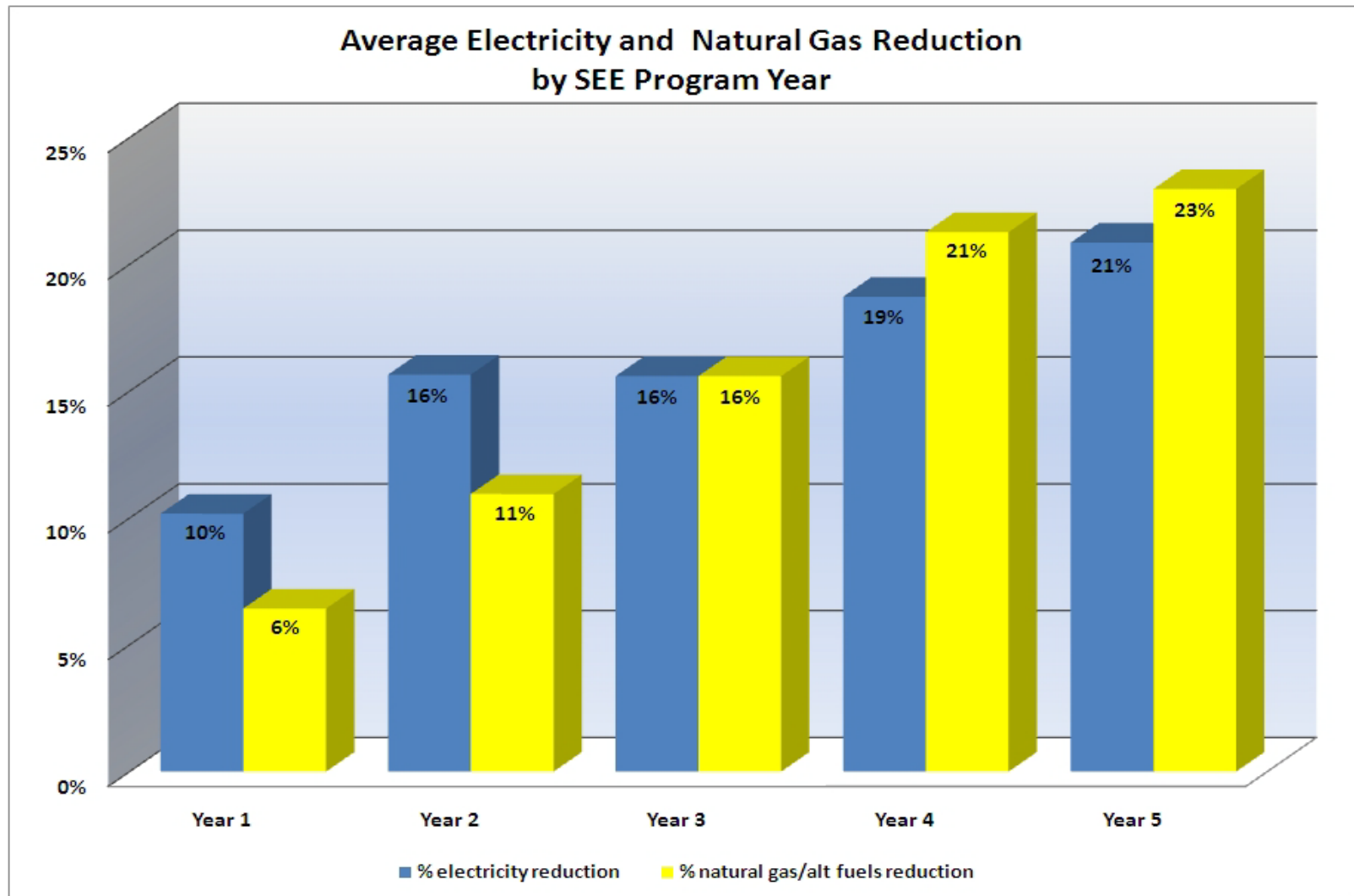
The SEE Program Goals are easy as 1 2 3



SEE Program Results

- Cost avoidance over \$25,000,000
- In 7 years, SEE schools have saved:
 - Over 178,000,000 kWh
 - Over 10,000,000 therms of natural
 - Over 424,000,000 pounds of CO₂
- Quarterly results exceed 40%

SEE Program Results



Measurement and Verification

SEE Measurement and Verification uses the “Whole Building” approach to measure energy savings

- Energy savings are determined by comparing the energy used during a base period of time to the energy used during the current period of time.
- The base period is defined as a continuous 12 month period before implementation of the SEE program. Savings are determined from the equation:

$$\text{Energy Saved} = \text{Energy Projected} - \text{Energy Actual}$$

SEE program savings calculations follow ASHRAE, IPMVP and FEMP recommended protocols.

Outcome-Based Utility Incentive Program

R&D / Pilot Program Participants



Crosby-Ironton
Public Schools

Outcome-Based Utility Incentive Program (continued)

The goal of this project was to develop an “outcome based” program to measure, verify, and award utility incentives for energy usage reductions achieved from an expanded Schools for Energy Efficiency[®] (SEE) program.

Outcome-Based Utility Incentive Program

(continued)

Throughout the year, school districts undertakes energy saving steps:



Outcome-Based Utility Incentive Program Components

- **This incentive program precludes the district from participating in other utility asset based rebate programs during the life of the SEE program. This prohibits the possibility of double-dipping.**
- District must remain in the SEE program to receive utility incentives.
- Utilities provide annual, year-end financial incentives based upon district-wide results.
- Annual incentives are placed into a Trust account.
- Incentive must be used for an approved energy asset improvement project.

Outcome-Based Utility Incentive Program Components *(continued)*

- District to determine energy asset project regardless of incentive source, subject to program guidelines. The intent is for the incentive to be spent on the poorest performing building.
- Trust funds are released to district after a project is completed.
- Participating utility receives access to district information within SEE database (adjusted baseline data, actual usage/cost data, energy saved, cost avoidance, baseline changes, asset improvement plan, date asset is put into service, cost of project, etc).

Outcome-Based Utility Incentive Program Components *(continued)*

- SEE's utility tracking process and results are audited by participating utilities every two years.
- Baseline adjustments are made only for “significant and permanent” building changes
 - Square footage
 - Significant added load (new cooling)

Utility Incentive Structure

| Utility Incentive Structure | | | | | |
|--|---------------------|------------|------------|--------------|--|
| | Energy Usage | | | | |
| | Savings Per: | kwh | mcf | therm | |
| Tier 1 | First 5% at: | \$ 0.030 | \$ 1.00 | \$ 0.10 | |
| Tier 2 | Next 5% at: | \$ 0.040 | \$ 2.00 | \$ 0.20 | |
| Tier 3 | Next 5% at: | \$ 0.050 | \$ 3.00 | \$ 0.30 | |
| Tier 4 | Next 5% at: | \$ 0.065 | \$ 4.25 | \$ 0.43 | |
| Tier 5 | Balance % at: | \$ 0.080 | \$ 5.50 | \$ 0.55 | |
| Must reach 5.0% before any incentive paid: | | | | | |

Crosby-Ironton Schools

Outcome-Based Utility Incentive Program

Actual and Projected Energy Savings and Utility Incentives

| | Electric Calculations | | | Natural Gas Calculations | | | Savings |
|----------------|-----------------------|------------------|--------------------|--------------------------|----------------|-----------------------|----------------------|
| | % Electric Savings | kWh Saved | Electric Incentive | Natural Gas Savings | Therms Saved | Natural Gas Incentive | Avoided Energy Costs |
| Year 1 | 13.6% | 318,849 | \$12,437 | 6.9% | 10,058 | \$1,282 | \$33,302 |
| Year 2 | 21.6% | 505,413 | \$24,657 | 20.2% | 26,195 | \$6,776 | \$59,929 |
| Year 3* | 22% | 514,177 | \$25,358 | 22% | 29,706 | \$8,405 | |
| Year 4* | 24% | 560,920 | \$29,089 | 25% | 33,756 | \$10,633 | |
| Year 5* | 25% | 584,292 | \$30,967 | 26% | 35,107 | \$11,376 | |
| Totals | | 2,483,651 | \$122,508 | | 134,822 | \$38,472 | \$93,231 |

5 year average incentive paid per kWh \$0.049

5 year average incentive paid per therm \$0.285

Notes:


Year 1 and Year 2 results and incentive calculations are actual.

*Years 3 - 5 are projected based on Crosby-Ironton's and SEE's historical results and trends.

The Crosby-Ironton School District has received \$45,152 in utility incentives in 2 years

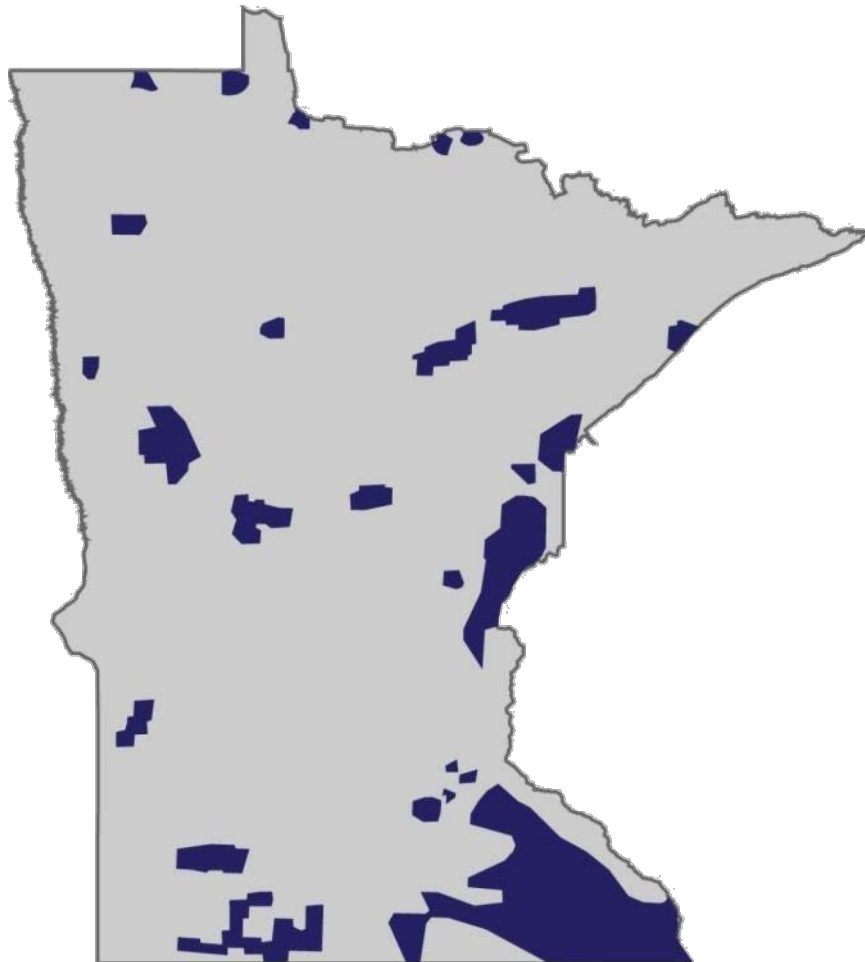
Benefits of the Outcome-Based Incentive Program to Schools

1. Incentive payment that schools receive under the incentive-based program tend to be greater than dollars received under traditional rebate programs.
2. Much-needed funds are reinvested back into the District's poorest performing buildings.
3. Improving the efficiency of the poorest performing buildings increases energy savings, which increases utility incentive dollars.



Utility Company Perspective
Jeff Larson, Manager External Relations
Minnesota Energy Resources

Minnesota Energy Resources, a subsidiary of Integrys



We serve over 207,000 customers in 165 communities throughout Minnesota.





Questions?