



Financial Incentives for Energy Efficiency and Conservation



Who We Are

Energy Smart is a program run by Minnesota Waste Wise, a non-profit affiliate of the Minnesota Chamber of Commerce

approved by



funded by



Saving Energy – The Potential

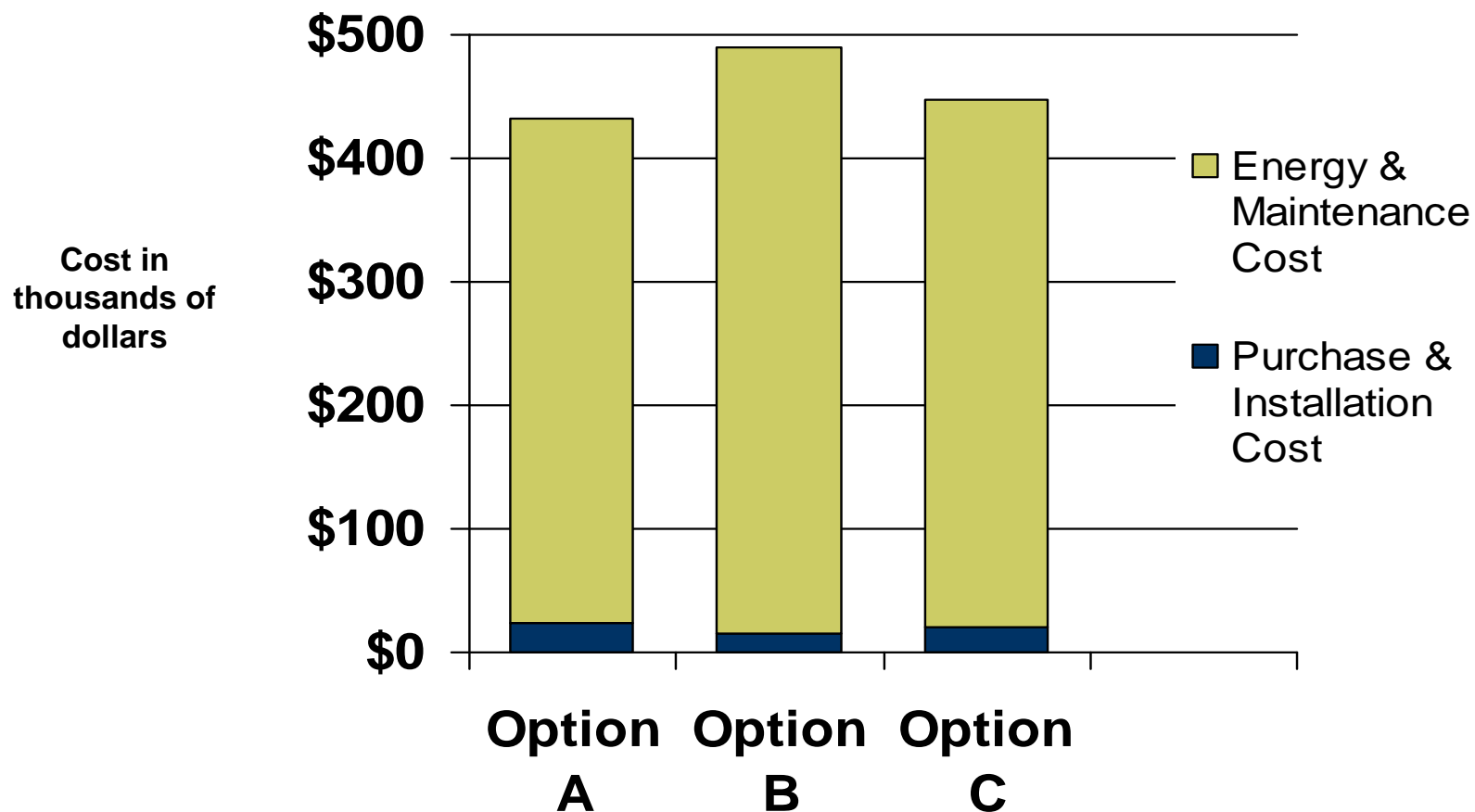


Energy Star estimates that 30% of energy used in buildings is wasted.

If spending \$5,000 per month on energy, \$1,500 per could be saved each month.

Source: <http://www.energystar.gov>

Saving Energy – Life Cycle Costs



1st Steps

Know how energy is used

Make a plan

Energy Star's Energy Portfolio

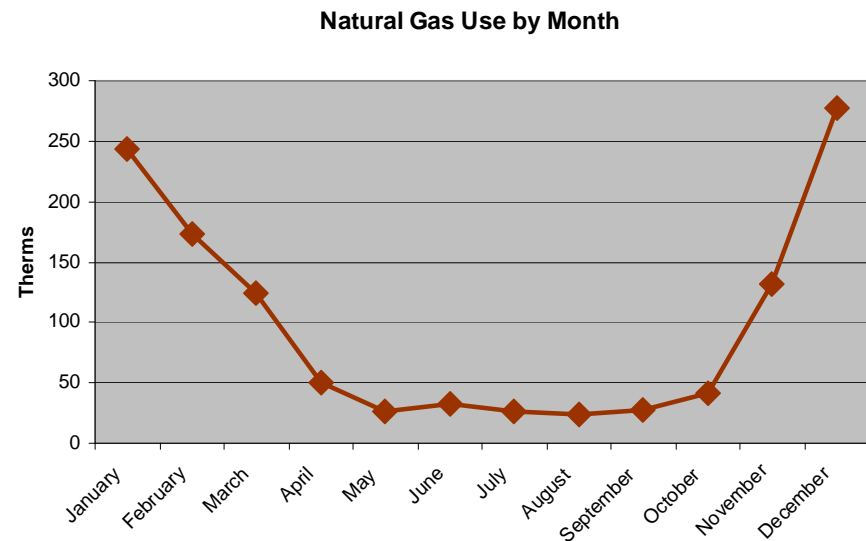
Do the easy things now

**Find out the financial
incentives that are available**



Know How Energy Is Used

- Pay Attention to Energy Bills
 - Chart for a year or more
 - Look for anomalies
 - Look for opportunities to reduce usage at charge points (peak demand, etc.)



Energy Use Indicators

Building Markers

Energy Use Index Btu/square foot conditioned space/year

Energy Cost Index \$/square foot conditioned space/year

Equipment Marker

Point of Use Index $POU = (\text{purchase price}) / \text{efficiency}$

Productivity Marker

Productivity Index Energy use/qualifier
Btu/enrolled student
Btu/person employed, etc.



Develop a Plan

★ ☆ Guidelines for Energy Management ...

ENERGY STAR SUPERIOR ENERGY MANAGEMENT CREATES ENVIRONMENTAL LEADERS
U.S. Environmental Protection Agency

About ENERGY STAR · News Room · FAQs · **KIDS** Search Go

Products Home Improvement New Homes Buildings & Plants Partner Resources

Home > Buildings & Plants > Guidelines for Energy Management Overview

Guidelines for Energy Management Overview

EPA offers a proven strategy for superior energy management with tools and resources to help each step of the way. Based on the successful practices of ENERGY STAR partners, these guidelines for energy management can assist your organization in improving its energy and financial performance while distinguishing your organization as an environmental leader.

The steps:

- STEP 1: [Make Commitment](#)
- STEP 2: [Assess Performance](#)
- STEP 3: [Set Goals](#)
- STEP 4: [Create Action Plan](#)

Buildings & Plants

Guidelines for Energy Management

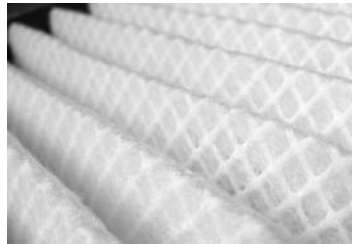
Make Commitment	
Assess Performance	
Set Goals	
Create Action Plan	
Implement Action Plan	
Evaluate Progress	
Recognize Achievements	
Tools & Resources Library	
Expert Help	

```
graph TD; A[Make Commitment] --> B[Assess Performance & Set Goals]; B --> C[Create Action Plan]; C --> D[Implement Action Plan]; D --> E[Evaluate Progress]; E --> F[Recognize Achievements]; F --> A; F --> G[Re-Assess]; G --> B;
```

9 Easy Low or No-Cost Actions



Dial back or up



Keep it Clean



Calibrate Oven Temp.



Bullet & Blue



120° or less



Low Flow



Set it = \$50



Turn it off



Lighting

Medium Cost Actions

Broad Application



Occupancy Sensors



Lighting



Maintenance Contract

Specific Application



Low-flow Spray Valve

for Commercial Kitchens



NEMA Premium Motors



Vending Controls

Financial Incentives

Types of Financial Incentives

Utility Rebates

Government Grants

Low Interest Loans

Federal Tax Deductions

Other Opportunities



Utility Rebates

Program	Rebate
Hot Water and Steam Boilers	Based on unit size in Btu/hr input. Minimum efficiency rating required.
Boiler System Components	Rebate criteria depends on component installed.
Boiler Tune-ups	Based on unit size in Btu/hr input. % of tune-up cost, boiler size and facility cap are included in the qualifying criteria.
Unit & Infrared Heaters	Infrared low intensity tube type \$250/unit. Unit heater with 83% thermal efficiency or greater may receive a rebate.
Forced Air Furnaces	Based on unit size in Btu/hr input. Minimum efficiency rating required.
Heating System Steam Traps	Float and thermostatic (F&T) or bucket type steam traps qualify for rebate. % of equipment & per building cap.
Water Heaters	Rebate based on Btu input.
Custom	Unique equipment needs.
Food Service Equipment	Per unit rebates for broiler, fryers, pasta cookers, convection ovens, etc.

Grants – Good To Know



Start Early, Read Carefully, and Follow Directions

Compile as much project detail as possible including:

- Utility billing history charted out (24 to 36 months)
- Current & new equipment size and efficiency specifications
- Project cost & simple payback
- Projected energy savings in MMBTU or kWh
- Annual energy cost saving by fuel type
- Improvement start and finish dates
- If grant match required, proof of where it'll come from

Federal Grants



- A good portion of the federal energy stimulus dollars for energy are being funneled through the Minnesota Office of Energy Security
- Current list of DOE Grant opportunities
<http://www1.eere.energy.gov/financing/business.html>
- For new postings, subscribe to RSS Feed
<http://feeds2.feedburner.com/EereFinancialOpportunities>

How To -- Federal Grants

<http://www1.eere.energy.gov/financing/business.html>

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

EERE Financial Opportunities

[Funding & Award Process](#) | [Types of Financial Assistance](#) | [Financial Opportunities by Audience](#) | [How to Apply](#) | [Home](#)

Financial Opportunities by Audience

[Printable Version](#) | [Search Help](#) | [More Search Options](#)
 EERE Information Center Programs and Offices

Business, Industry, & Universities

Past EERE Solicitations
Related Solicitations

Consumers

Federal Energy Managers

Inventors

States

Tribes

Solicitations for Business, Industry, and Universities

The majority of Office of Energy Efficiency and Renewable Energy (EERE) financial opportunities are for business, industry, and universities.

To explore current EERE financial assistance solicitations and solicitation-related requests, click on the titles in the table below. If you are searching for listings in a particular technology area, be sure to also look at those labeled "crosscutting." These apply to more than one technology area.

The EERE Financial Opportunities RSS feed is updated when new EERE solicitations are posted. [Subscribe to RSS feed](#)

Sort by Technology ▼	Sort by Solicitation Title ▼	Sort by Open Date ▼	Sort by Close Date ▼
Crosscutting	U.S. China Clean Energy Research Center (CERC)	03/30/2010	05/21/2010
Crosscutting	SEP Strengthening Building Retrofit Markets and Stimulating Energy Efficiency Action	04/09/2010	05/24/2010
Buildings	Building Energy Efficiency Through Innovative Thermodevices (BEETIT)	03/02/2010	05/24/2010
Efficiency - General	Agile Delivery of Electrical Power Technology (ADEPT)	03/02/2010	05/24/2010
Solar	Request for Information (RFI) - Solar Workforce Certification and Training Accreditation	04/20/2010	05/31/2010
WIP-Weatherization	Weatherization Innovation Pilot Program	04/22/2010	06/02/2010
Solar	Photovoltaic (PV) Manufacturing Initiative	04/21/2010	06/03/2010
Wind & Hydropower-Hydropower	Marine and Hydrokinetic Technology Readiness Advancement Initiative	04/20/2010	06/07/2010
Solar	National Administrator of the Solar Instructor Training Network	04/21/2010	06/15/2010
Solar	High Impact Supply Chain Research and Development for PV Technologies and Systems	04/21/2010	07/02/2010

How To -- Federal Grants

SEP Strengthening Building Retrofit Markets and Stimulating Energy Efficiency Action

Open Date: 04/09/2010

Close Date: 05/24/2010

Funding Organization: Office of Energy Efficiency and Renewable Energy

Funding Number: DE-FOA-0000251

Summary:

The Department of Energy National Energy Technology Laboratory, on behalf of the Office of Energy Efficiency and Renewable Energy's (EERE's) State Energy Program, is seeking applications to advance policies, programs, and market strategies that accelerate job creation and reduce energy bills, while achieving energy and climate security for the nation. This competitive announcement allows states to compete for funding designed to meet EERE nationally focused initiatives for the fundamental and permanent transformations of markets across all sectors of our economy.

The two Areas of Interest are as follows:

- **Area of Interest 1: Strengthening Building Retrofit Markets:** This Area of Interest will assist states in developing approaches for retrofitting buildings in the nation's residential and commercial sectors.
- **Area of Interest 2: Stimulating Energy Efficiency Action:** This Area of Interest will assist states in generating the necessary policy and program frameworks to support investment in cost-effective energy efficiency for the long-term.

For more information, see the [full solicitation](#).

Last updated: 04/15/2010

Funding amounts and schedules are subject to change.

How To -- Federal Grants

SEP Strengthening Building Retrofit Markets and Stimulating Energy Efficiency Action



Synopsis

Full Announcement

Application

The synopsis for this grant opportunity is detailed below, following this paragraph. This synopsis contains all of the updates to this document that have been posted as of **04/09/2010** . If updates have been made to the opportunity synopsis, update information is provided below the synopsis.

If you would like to receive notifications of changes to the grant opportunity click [send me change notification emails](#) . The only thing you need to provide for this service is your email address. No other information is requested.

Any inconsistency between the original printed document and the disk or electronic document shall be resolved by giving precedence to the printed document.

Description of Modification

Update FedConnect Link

Document Type:	Modification to Previous Grants Notice
Funding Opportunity Number:	DE-FOA-0000251
Opportunity Category:	Discretionary
Posted Date:	Apr 09, 2010
Creation Date:	Apr 15, 2010
Original Closing Date for Applications:	May 24, 2010
Current Closing Date for Applications:	May 24, 2010
Archive Date:	Aug 24, 2010
Funding Instrument Type:	Cooperative Agreement Grant
Category of Funding Activity:	Energy
Category Explanation:	

State Grants



- Active RFP's listed at the URL below
- There are no active RFP's at this time
- Watch for RFP notices at:
<http://www.state.mn.us/portal/mn/jsp/home.do?agency=Energy>
- Sign up for stimulus updates at:
http://visitor.constantcontact.com/manage/optin/ea?v=001gYuebWISSZOLY2_joMRs-A%3D%3D

State Grants – Calculating The Savings

Facility Cost-Share Attachments

- Attachment 2: [Window Savings Calculator \(.xls\)](#)
- Attachment 3: [Lighting Replacement Calculator \(.xls\)](#)
- Attachment 4: [Building Envelope Calculator \(.xls\)](#)
- Attachment 5: [Heating and Cooling Calculator \(.xls\)](#)
- Attachment 6: [Building Energy Consumption Calculator \(.xls\)](#)
- [How To Calculate Envelope R-values \(.pdf\)](#)

<http://www.state.mn.us/portal/mn/jsp/content.do?id=-536893811&subchannel=-536895393&sc2=null&sc3=null&contentid=536919002&contenttype=EDITORIAL&programid=536917843&agency=Energy>

State Grants – Calculating The Savings

Heating and Cooling Calculator

Building Name and Location:											
Climate zone (See Climate Zones Tab)											
Equivalent Full Load Cooling Hours (Table 1)											
0											
Summer Electrical Energy Cost											
\$0.00 \$/kWh											
Heating Fuel Cost											
\$0.00 \$/MMBtu											
Avg. Summer Electrical Demand Cost											
\$0.00 \$/kW/Month											
Heating Replacements											
Equipment	Average MMBtu Used by This Equipment in One Season	Existing Efficiency ¹	Proposed Efficiency ²	Energy Savings MMBtu/yr	Annual Cost Savings	Total Cost	Rebate	Disposal cost	Total Net Cost	Payback	Labor Hours
	0.0	0%	0.0%						\$0.00		0
	0.0	0%	0.0%						\$0.00		0
	0.0	0%	0.0%						\$0.00		0
	0.0	0%	0.0%						\$0.00		0
	0.0	0%	0.0%						\$0.00		0
Totals:				0.0	\$0	\$0.00	\$0.00	\$0.00	\$0.00	0	0
Footnotes:											
1) Average heating plant efficiency is not the same as steady state, full load combustion efficiency, but rather a combination of the combustion efficiency, stack losses and boiler shell losses. While there are ways to accurately determine overall heating plant efficiency, it is expensive to do. A licensed boiler operator should be able to make a reasonably accurate estimate of the average efficiency. A helpful reference point is the combustion efficiency measured at the end of the most recent boiler tune up. An acceptable range of efficiencies for non-condensing boilers is 60 to 85 percent.											
Default existing equipment efficiencies may be found here: http://www.dli.mn.gov/CCLD/PDF/energy7678.pdf											

Sign Up For “Linda’s List”



- Linda Limback at the Minnesota Office of Energy Security
- Sends bi-monthly updates: “New Funding Opportunities in the Fields of Energy and Environment”
- E-mail her at Linda.Limback@state.mn.us and ask to be added

"Linda's List" – A Post



USDA: Renewable Energy Systems and Energy Efficiency Improvements

- *The Rural Energy for America Program*
 - Will provide funds to agricultural producers and rural small businesses to purchase and install renewable energy systems and make energy efficiency improvements.
 - The grants are awarded on a competitive basis and can be up to 25% of total eligible project costs.
 - Grants are limited to \$500,000 for renewable energy systems and \$250,000 for energy efficiency improvements. Grant requests as low as \$2,500 for renewable energy systems and \$1,500 for energy efficiency improvements will be considered.
 - At least 20% of the grant funds awarded must be for grants of \$20,000 or less. Eligible applicants are agricultural producers and rural small businesses. Refer to REAP-RES-EEI.
 - Due June 30, 2010.
 - <http://www.grants.gov/search/search.do?mode=VIEW&oppld=54175>

The Post on Grants.Gov

Save & Submit

Save

Print

Cancel

Check Package for Errors



Grant Application Package

Opportunity Title:	Renewable Energy Systems and Energy Efficiency Improvem
Offering Agency:	Business and Cooperative Programs
CFDA Number:	10.868
CFDA Description:	Rural Energy for America Program
Opportunity Number:	RDBCP-10-REAP-RES-EEI
Competition ID:	
Opportunity Open Date:	04/26/2010
Opportunity Close Date:	06/30/2010
Agency Contact:	Kelley Oehler Energy/Loan/Grant Specialist kelley.oehler@wdc.usda.gov Phone: 202-720-6819

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

The Post on Grants.Gov

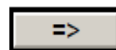
I will be submitting applications on my behalf, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

* Application Filing Name:

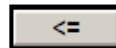
Mandatory Documents

SF424 Mandatory Form
Assurances for Construction Programs (SF-424D)
Budget Information for Construction Programs (S

Move Form to Complete



Move Form to Delete

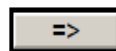


Mandatory Documents for Submission

Open Form

Optional Documents

Move Form to Submission List



Move Form to Delete



Optional Documents for Submission

Open Form

City or County Grants



- City of Minneapolis Great Streets Program
- Matching grant of up to \$5,000 for facade improvements visible from a public street—not necessarily energy related
- Match must be paid before grant check is issued
- Contact your local EDA, business association or local chamber

Low Interest Loans



Trillion BTU Energy Efficiency Program

- Energy Audit by Xcel Energy
- Blueprint for specific projects -- engineering study 75% paid by Xcel Energy, 25% by customer
- 100% of capital improvement paid for by Xcel Energy, St. Paul Port Authority and local EDA's.
- Loan payment structured so that monthly payment is less than estimated energy savings.
- First come, first served
- Contact the Xcel Energy Business Solution Center at 1-800-481-4700 or Pete Klein at the St. Paul Port Authority at 651-204-6211

Low Interest Loans



- Maximum of \$5,000 -- unsecured low-interest loan for lighting efficiency project
- Supported by local electric utility, local EDA and a grant from the DOE
- First come, first served
- Contact your local EDA, business association or local chamber

Business Tax Incentives

Federal Tax Deduction

- Tax deduction of up to \$1.80 per square foot
 - New or existing commercial buildings that are constructed or reconstructed to save at least 50% of the heating, cooling, ventilation, water heating, and interior lighting energy cost
 - Buildings must meet ASHRAE Standard 90.1-2001.

- Partial deductions of \$.60 per square foot
 - Can be taken for improvements to one of three building systems that reduce total heating, cooling, ventilation, water heating and interior lighting energy use by a certain percentage below ASHRAE 90.1-2001
 - building envelope (10%), lighting (20%), or heating and cooling system (20%)

- These deductions are available for buildings or systems placed in service from January 1, 2006, through December 31, 2013.

Business Tax Incentives

Federal Tax Deduction

Eligibility

- ❑ The person or organization that makes the expenditures for construction is generally the recipient of the allowed tax deductions. This is usually the building owner, but for some HVAC or lighting efficiency projects, it could be the tenant. Deductions can be taken for the year the property was placed in service.

How do they work

- ❑ The building or system must be certified by qualified individual
- ❑ Inspection and testing to ensure that energy goal is met must also be completed

How to qualify

- ❑ Know square footage and when building was placed in service
- ❑ Provide certification by qualified individual stating which targets have been met

http://energytaxincentives.org/business/commercial_buildings.php

DSIRE

DSIRE
Database of State Incentives for Renewables & Efficiency

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy
North Carolina Solar Center
IREC

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DSIRE SOLAR
Database of State Incentives for Renewables & Efficiency

MINNESOTA
Incentives/Policies for Energy Efficiency

Printable Version

- [See Federal Incentives](#)
- [See All Summaries](#)
- [See Residential Incentives Only](#)

Financial Incentives

PACE Financing

- [Local Option - Energy Improvement Financing Programs](#)

State Grant Program

- [Solar Energy Legacy Grants](#)

State Loan Program

- [Home Energy Loan Program](#)
- [MHFA Rental Rehabilitation Loan Program](#)
- [NEC Minnesota Energy Loan Program](#)
- [Rental Energy Loan Fund](#)

Resources

- Summary Maps
- Summary Tables
- Library
- Search

<http://www.dsireusa.org/>

Useful Resources

Minnesota

Your local utility

Your city economic development department

Your county or regional economic development program

Your local bank

Minnesota Office of Energy Security (State Government)

Energy Smart

Nationwide

U.S. Department of Energy (Energy Efficiency & Renewables)

U.S. EPA Energy Star Program

USDA Rural Energy for America Program

Questions



Contact Info



Jill Curran

(651) 292-4653

jcurran@mnchamber.com

www.mnenergysmart.com