

## HOME ENERGY AUDIT REPORT



<b>Audit Date:</b> 01-13-2011	<b>Auditor:</b> Jimmie Sparks
<b>Client Name:</b> White Bear Lake	<b>Audit Phone:</b> 651-221-4462x123

Thank you for participating in the Xcel Energy Audit program. A Home Energy Audit is the important first step toward achieving home energy efficiency. Read on to learn more ways to save with Xcel Energy's conservation programs.

Your audit was performed by the **Neighborhood Energy Connection (NEC)**, a Minnesota nonprofit whose mission is to offer tools for energy-efficient living. It was our pleasure to visit your home to help you find ways to increase its comfort and energy efficiency. We hope that you found the audit informative and useful.

For follow-up questions about your auditor's recommendations please call your auditor, **Jimmie Sparks** directly at **651-221-4462x123** or contact the NEC at (651) 221-4462 ext. 145.

Thanks again for your interest in conserving energy. Your commitment to improving your home provides a better future for everyone.

Sincerely,

Jimmie Sparks  
Residential Energy Program Manager  
Neighborhood Energy Connection

You were interested in learning how to save more on your energy bills

Our top recommendations were:

#### **Add Attic Insulation / Air Seal**

Insulate your attic to R-50, taking care to seal all air leaks beforehand.

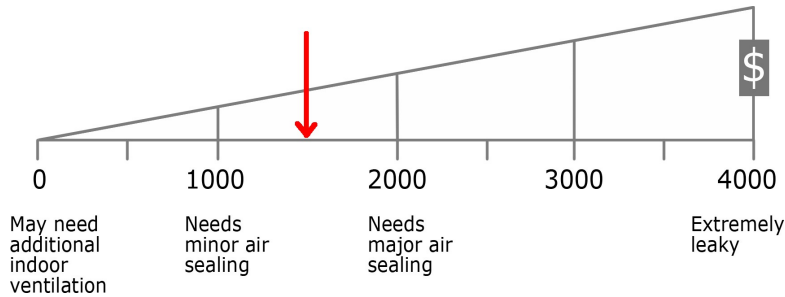
#### **Add Ventilation**

A home with little air leakage needs good ventilation to maintain indoor air quality. We recommend ventilation systems that are quiet (low sones), Energy Star rated and certified by the Home Ventilating Institute ([www.hvi.org](http://www.hvi.org)).

#### **Replace Furnace with 90% efficiency or better**

High efficiency furnaces typically cost less to operate on a month to month basis as they use less fuel to generate the same amount of heat. Over time, even though they are more expensive, high efficiency furnaces can cost less overall than less efficient furnaces.

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**We recommend air sealing in the following areas:**

- Attic:** Access Door/Hatch, Plumbing Vent, Dropped Ceiling
- Living Areas:** Baseboards, Doors, Door Trim, Window Trim, Electric Outlets, Switches
- Basement:** Rim Joist, Plumbing Vent, Plumbing Penetration, Dryer Vent, AC Line

## Home Performance Summary

5 stars meets Energy Star Federal Tax guidelines

### Attic: We recommend insulating your attic.

<b>Your attic's current R-Value:</b>	11	★
<b>Recommended R-Value:</b>	50	★★★★★

Estimated Cost: \$960.00 to \$1,123.00 Estimated Annual Return on Investment: 10% to 14%

### Walls: We do not recommend insulating your walls.

<b>Your wall's current R-Value:</b>	8	★★
<b>Recommended R-Value:</b>	14	★★★

Siding Type: Vinyl

### Basement Rim Joist: We recommend insulating and sealing your basement rim joist.

<b>Your rim joist's current R-Value:</b>	10	★★★
<b>Recommended R-Value:</b>	19	★★★★★

Estimated Cost: \$243.00 to \$292.00 Estimated Annual Return on Investment: 3% to 5%

**Definitions**

R-value insulation ratings are used to measure insulation's ability to resist heat flow. The higher the R-value, the more effective it is. House insulation should be purchased based on its R-value, not thickness or weight.

The "Rim Joist" is the piece of wood that sits directly on top of your foundation, connecting your floor joists. It is a common place for rim joist air leaks. Savings figures are calculated independently of one another and should not be combined

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## Mechanical Systems

### Heating System: Forced Air

You heat your home with: Natural Gas

Existing AFUE: 80	★★★
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We recommend you replace your heating system with an energy star model. For forced air furnaces, we recommend an AFUE of 90% or higher. For boilers, we recommend a AFUE of 85% or higher. Consider utility rebates and the federal energy efficiency tax credit when purchasing. See <http://www.energystar.gov/> for information on the tax credit.

### Water Heating:

Existing: Standard Gas (0.51 or less)	★★
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We recommend you replace your water heater with a high efficiency model. A tank water heater should have a EF rating of .67 or better. Consider utility rebates and the federal energy efficiency tax credit when purchasing. See <http://www.energystar.gov/> for information on the tax credit.

### Air Conditioning:

Existing Air Conditioning: Central Air

Existing SEER: 10	★
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We recommend you replace your central air conditioner with a model of 14.5 SEER or higher. Consider utility rebates and the federal energy efficiency tax credit when purchasing. See <http://www.energystar.gov/> for information on the tax credit.

### POTENTIAL UNSAFE CONDITION

Our auditor did not find any unsafe conditions.

### DEFINITIONS

Annual Fuel Utilization Efficiency (AFUE) is a rating that reflects how efficiently a heating system converts fuel to energy. The higher the AFUE, the more efficient the heating system.

The Energy Factor (EF) indicates a water heater's overall energy efficiency based on the amount of hot water produced per unit of fuel consumed over a particular day. The higher the EF, the more efficient the water heater.

Seasonal Energy Efficiency Ratio (SEER) is a measure of the energy efficiency of an air conditioning system.

## HOME ENERGY AUDIT REPORT



Report Date: **01-13-2011**  
 Client Name: **White Bear Lake**  
 Client Address: **3790 McKnight Road N**  
 Auditor: **Jimmie Sparks**

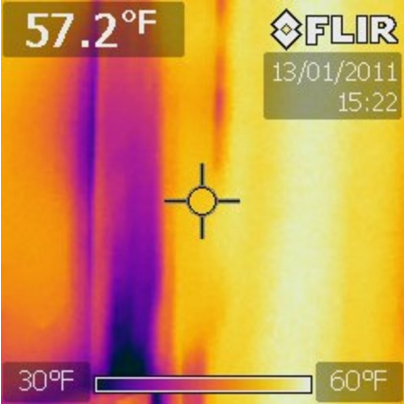

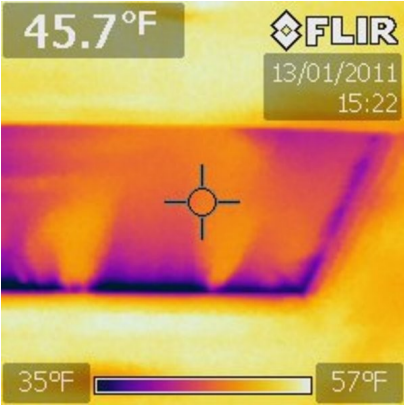

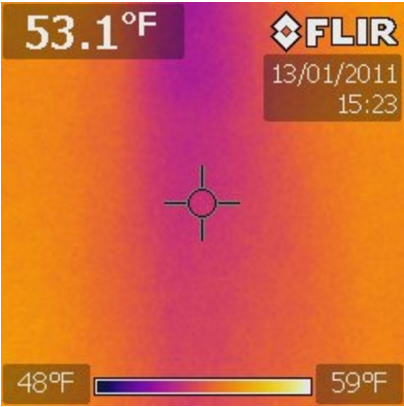

## ABOUT INFARED IMAGES

The infrared (IR) images show what the surface temperatures of wall and ceiling areas are relative to surrounding areas. The darker shades represent colder areas and indicate framing and/or insulation voids or cold air coming in from outside. Following are infrared images next to standard digital photos of the same areas. Darker shades indicate cooler surfaces while lighter shades indicate warmer surfaces.

INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Air leakage at wall and floor connection, seal with caulking</p>
		<p>Air leakage thru door, reweather-strip</p>

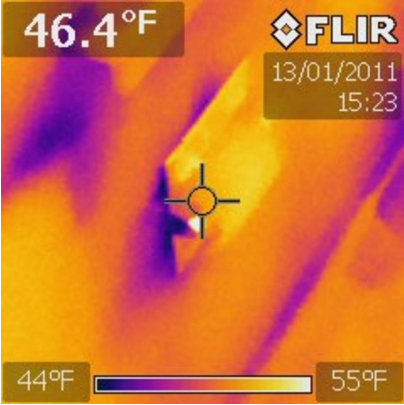

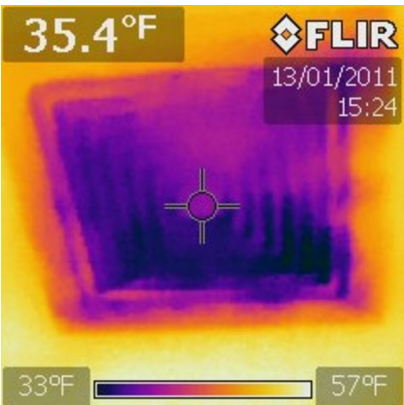

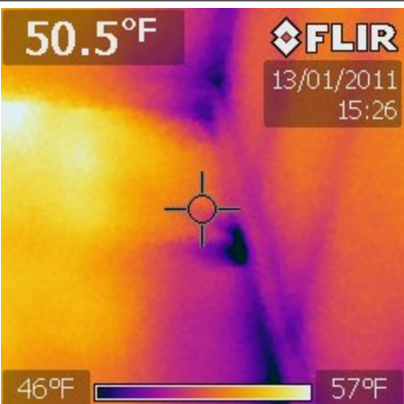

## HOME ENERGY AUDIT REPORT



INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Air leakage thru window, reweather-strip</p>
		<p>Missing insulation and air leakage from attic hatch. Insulate and weather-strip</p>
		<p>Air leakage from soil stack, seal in attic</p>

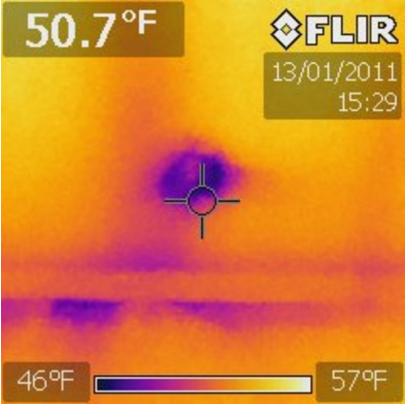

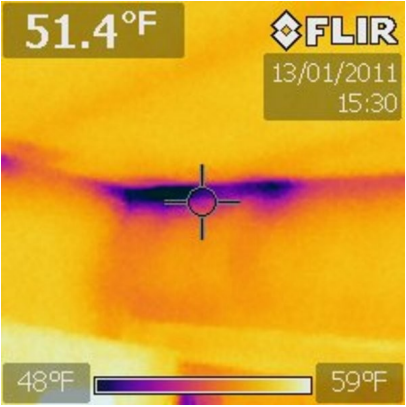

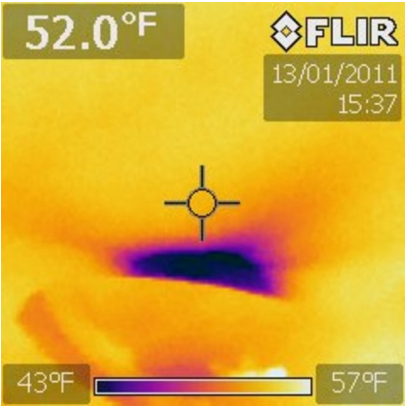

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INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Air leakage around bathroom fixture, seal with caulking</p>
		<p>Air leakage from bathroom fan, check that roof damper is working.</p>
		<p>Air leakage at wall and floor, seal with caulking</p>

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INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Air leakage from electric outlet and floor, caulk floor, install foam gaskets behind electric outlet cover.</p>
		<p>Air leakage from top plates, seal before adding insulation.</p>
		<p>Air leakage from light fixture, seal from attic</p>

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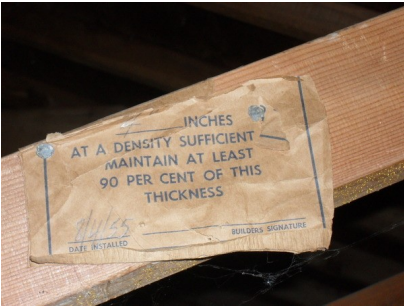



INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Air leakage at rim joist, air seal and insulate with foam insulation.</p>
		<p>Air leakage at soil stack, seal from attic as well as basement</p>
		<p>Air leakage from basement window, replace window</p>



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INFRARED IMAGES	DIGITAL IMAGES	COMMENTS
		<p>Heating system was updated but needs to be replaced.</p>
		<p>Attic has not been updated since 1955.</p>

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## Xcel Energy Rebate Programs

Xcel Energy's rebate programs pay you to make your home more efficient. Based on your needs we recommend the following Xcel Energy rebate program(s):

### The Home Performance Rebate Program

Your home qualifies for the Xcel Energy Home Performance Rebate program which gives you the opportunity to save more energy and by doing more improvements at once, you receive larger rebates. You have completed the first step by receiving an energy audit. Now submit your sign up form and choose installers from the Preferred Contractor list. Your auditor can answer questions about this program.

Here are the possible improvements for your home:

#### Required Items to Complete:

Air Sealing & Weather Stripping  
 Attic Insulation & bypass sealing  
 CFLs – Total of 20

#### Rebate:

\$60  
 \$350  
 \$40

#### Optional Items (choose two or more):

AC 14 SEER  
 ECM Fan  
 Furnace 94%  
 Occupancy Sensor  
 Programmable Thermostat  
 Water Heater - (0.67 EF)

#### Rebate:

\$250.00  
 \$100.00  
 \$300.00  
 \$60.00  
 \$10.00  
 \$150.00

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Recommended Xcel Energy Rebate Program for your home:

Take a whole-house approach to energy savings and home improvements. This program is ideal for homeowners who need to make multiple improvements to their home.

## Five easy steps

1. Get a standard audit (\$60 audit with a blower door test) or infrared audit (\$100 audit).
2. Sign up for the program by calling 1-800-895-4999 or mailing the card on the brochure left by your auditor.
3. Choose a [participating contractor](#). Have a participating contractor install your recommended improvements. If you cannot access the list from the link above, call the NEC at 651-221-4462 x136 and get a copy mailed or e-mailed to you.
4. Call our partner, Neighborhood Energy Connection (NEC) at 1-651-221-4462 x 136, to come inspect and verify that the improvements have been installed which will give you peace of mind.
5. NEC will collect your receipts and submit your rebate paperwork for you.

## List of all eligible improvements:

Required Energy Conservation Improvements	Rebate*
Air Sealing/Weatherstripping (20% of install cost up to rebate amount)	\$60.00
Attic Insulation (20% of install cost up to rebate amount)	\$350.00
CFLs	\$40.00

Optional (choose at least two)	Rebate*	Optional (choose at least two)	Rebate*
AC 14.5 SEER	\$250.00	AC 15 SEER	\$350.00
AC 16 SEER	\$475.00	Clothes Washer	\$50.00
Dishwasher	\$15.00	ECM Fan	\$100.00
Furnace 90%	\$150.00	Furnace 92%	\$225.00
Furnace 94%	\$300.00	Furnace 96%	\$325.00
Boiler – 84%	\$250.00	Occupancy Sensor	\$60.00
Refrigerator	\$15.00	Programmable Thermostat	\$10.00
Wall Insulation (20% of install cost up to rebate amount)	\$400.00	Water Heater – Tankless (0.82 EF)	\$450.00
Water Heater – (0.67 EF)	\$150.00	Water Heater – (0.80 EF)	\$250.00
Refrigerator Recycling	\$35.00		

\*Certain restrictions and criteria do apply in order to be eligible for these rebates

1. Customers are not eligible to receive rebates from Home Performance and other Xcel Energy program for the same improvement;
2. Customer invoices/receipts must be dated after their audit date and after the date of sign up for the Home Performance program;
3. The test-out inspection must be satisfactorily completed;
4. Customers must meet all program requirements to be eligible for any of the Home Performance rebates;

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5. All improvements must be completed by an Xcel Energy Participating Installation Contractor (PIC);
6. Program is contingent on availability of funds and could be terminated at any time.

### Pre-Existing Equipment or Condition

Pre-Existing condition refers to equipment or insulation that you have already installed, prior to your audit and prior to signing-up for Home Performance with ENERGY STAR. Certain pre-existing equipment can be counted towards your Home Performance requirements; however, you are **not** eligible to receive our rebate for that specific equipment. CFLs are allowed as pre-existing equipment and you may also have one optional improvement designated as a pre-existing equipment condition.

### Program requirements

To participate, you must:

- Must be a residential natural gas and electric customer of Xcel Energy or be an all electric Xcel Energy customer with electric space heating
- Complete a Standard Audit (\$60 fee) or Standard Audit with Infrared audit (\$100 fee)
- Use an install contractor from our Participating Install Contractor List
- Implement at least five improvements—three mandatory and two optional
- Complete final inspection and provide all receipts to our partner, NEC

**Note:** If you have already earned a rebate through a different Xcel Energy program, you cannot receive another rebate for the same improvement.