

June 22nd, 2023

HOME ENERGY AUDITS

First step to start electrifying

Gerardo Roca

Bilingual Outreach Specialist

¡Hablo Español!



Center for Energy and Environment

CEE's nonprofit mission

The Center for Energy and Environment promotes energy efficiency to strengthen the economy while improving the environment.

We provide practical energy solutions for homes, businesses, and communities.

WE STAND FOR

- ✓ Collaboration
- ✓ Expertise
- ✓ Science
- ✓ Community
- ✓ Integrity
- ✓ Equity

At our core



PROGRAMS

We cut energy waste while improving comfort in homes, commercial buildings, and communities.



CONSULTING

We help building owners and entire communities achieve long-term, energy-saving solutions.

RESEARCH

We identify and explore cost-effective, efficient technologies and ideas through field analysis, modeling, and stakeholder engagement.



POLICY

We strive for high-impact, pragmatic solutions guided by a public interest ethic.



LENDING

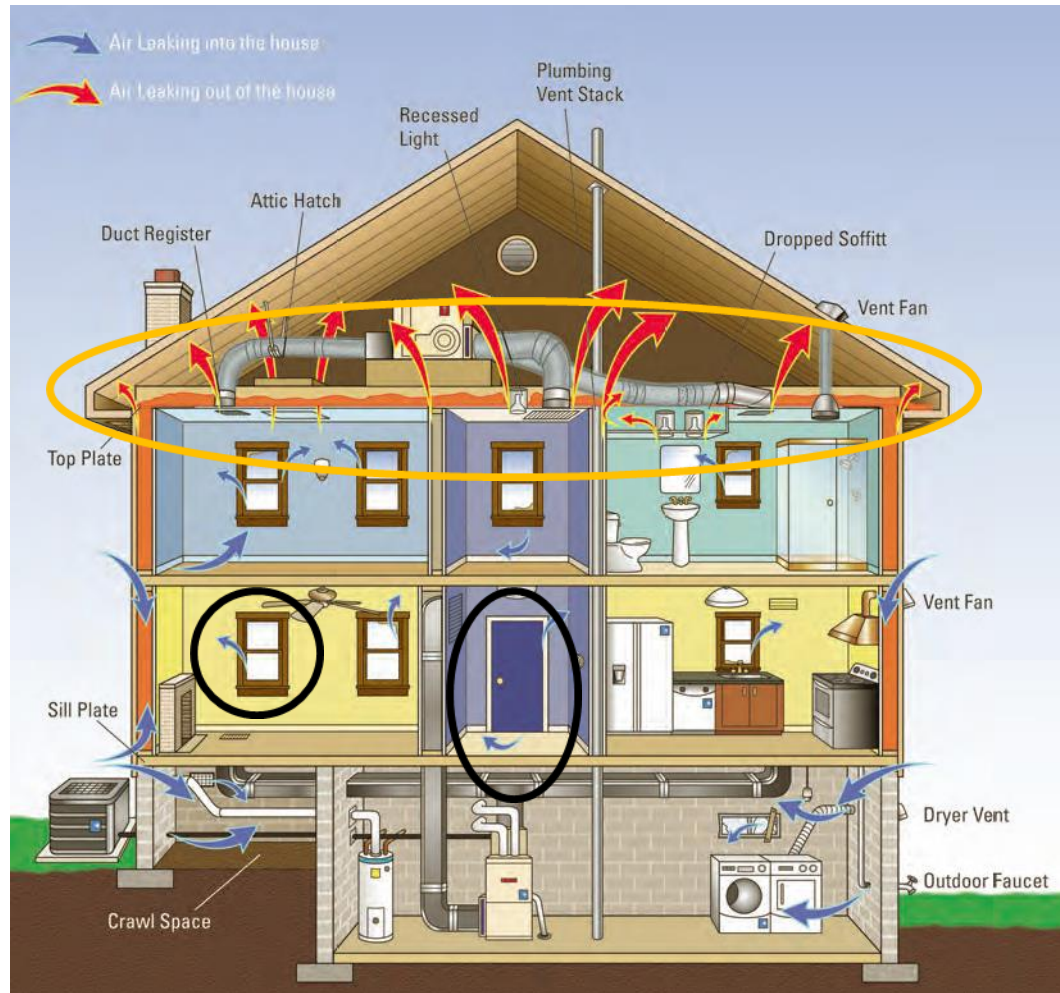
We empower people to make upgrades on energy efficiency and comfort in homes or businesses.



UNDERSTANDING YOUR HOME ENVELOPE

Weatherization and sealing your home

❖ Is Your Home Losing Energy?

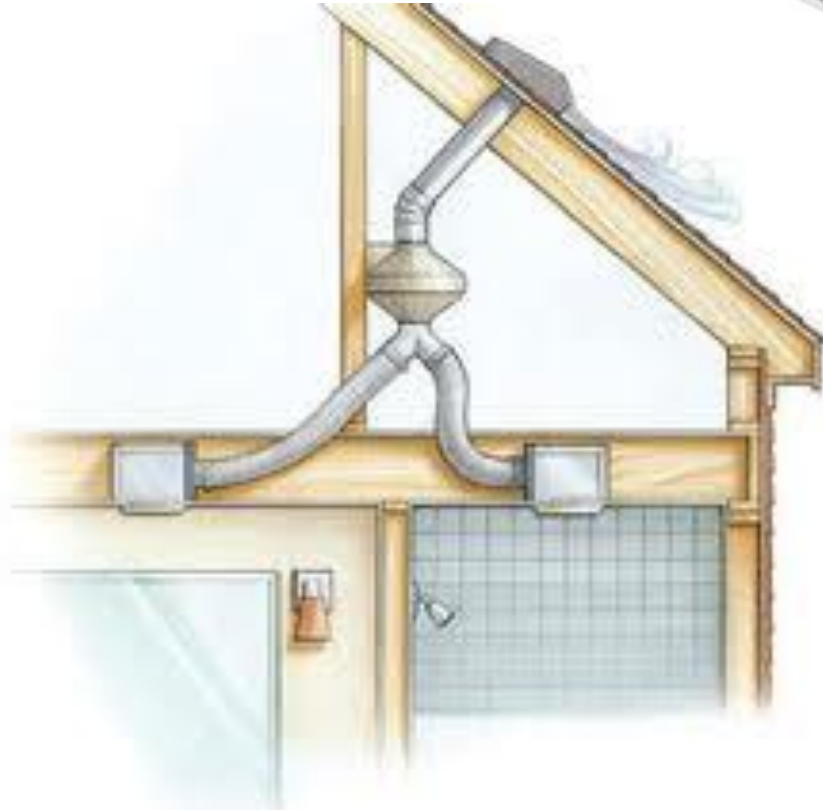


❖ Signs of air leakage



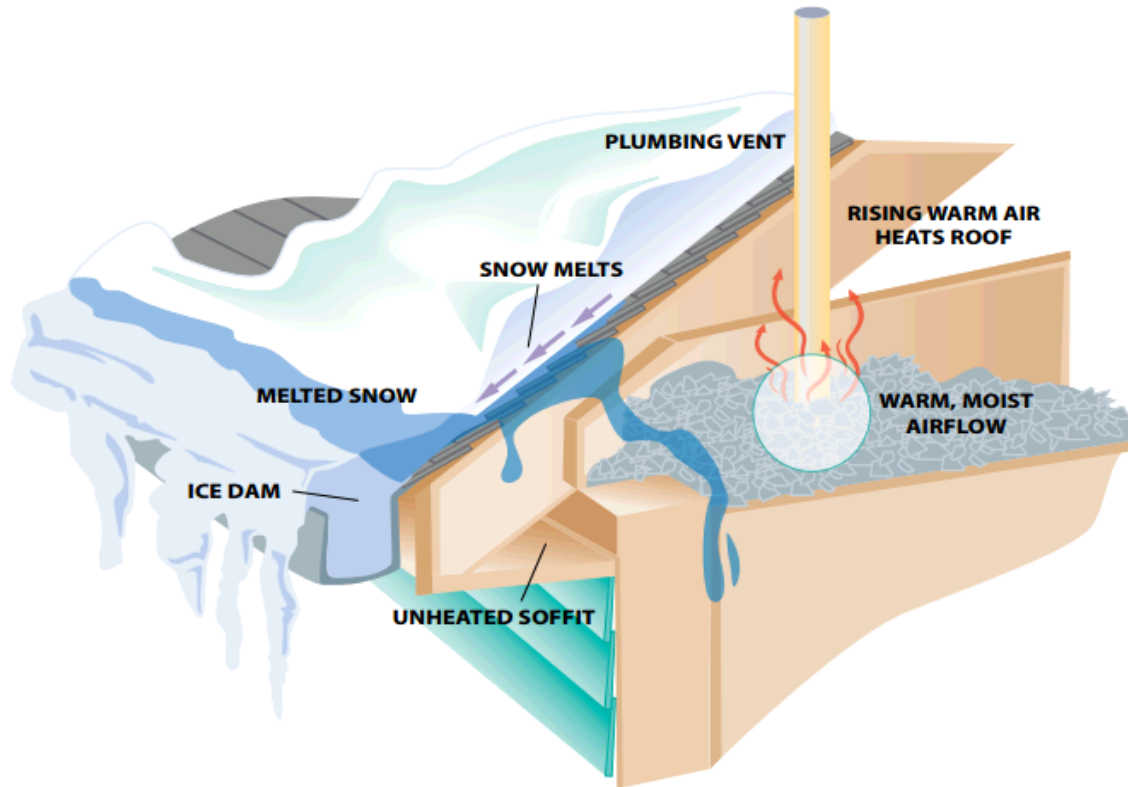
Dry, itchy skin, static electricity, frequent humidifier use

•• Ventilation

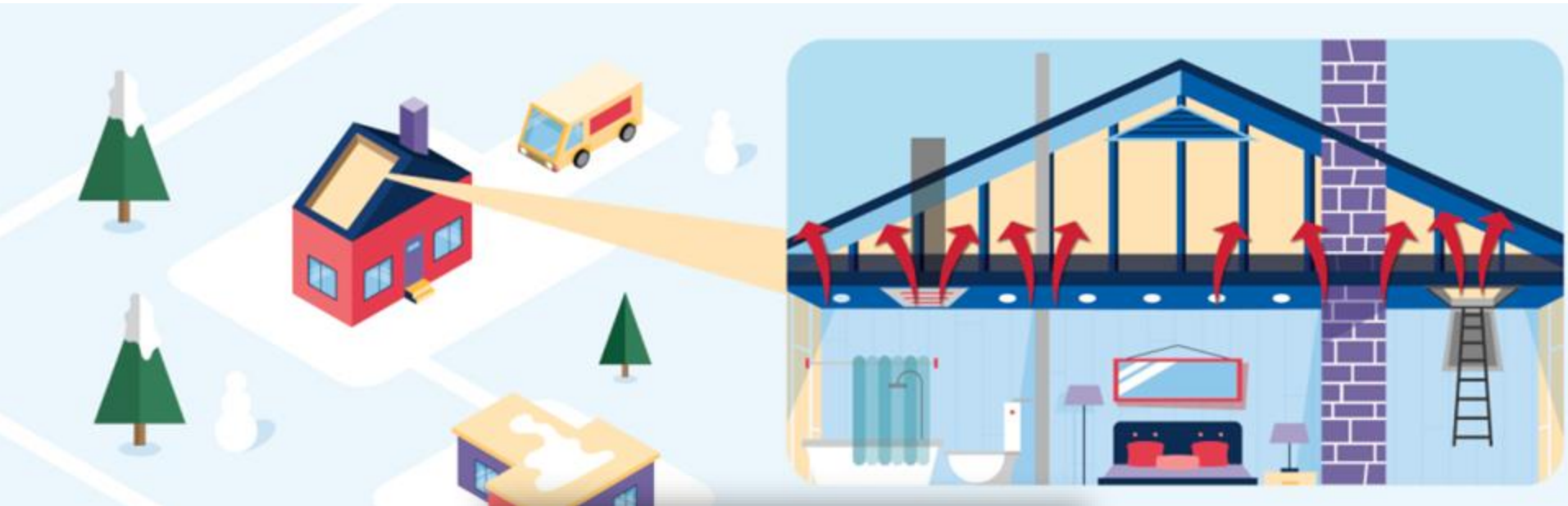


- Manage indoor moisture and odors
- Helps maintain a healthy home

❖ Ice Dams



❖ Air Sealing



•• Attic Insulation

- Most common recommendation
- Insulate and air seal your attic to R-50
- Work with a rebate eligible contractor



❖ Before and After



❖ Empty Wall Cavity

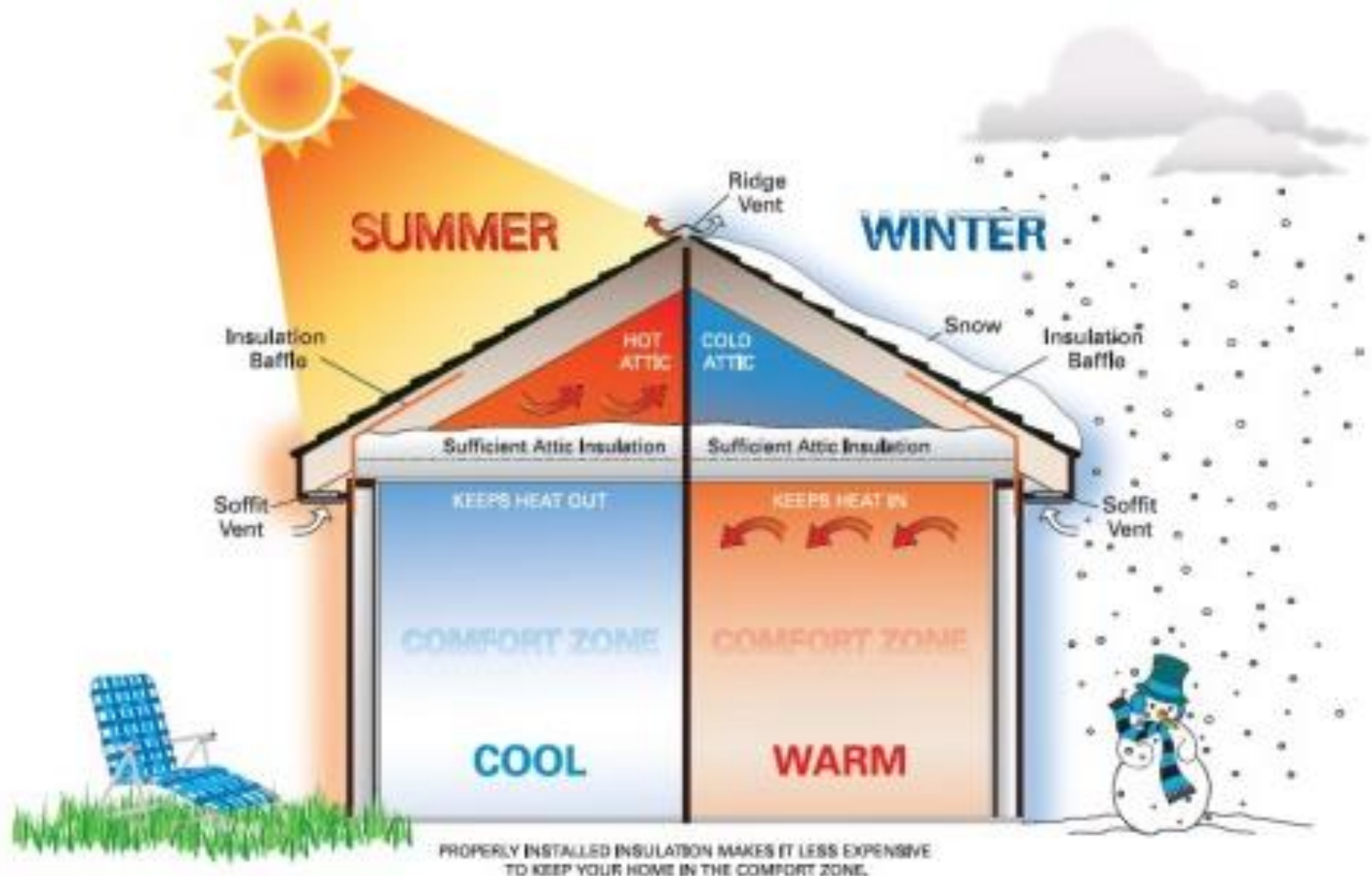


•• Wall Insulation

- Insulate to at least R-11
- Goal is to fill your wall cavity



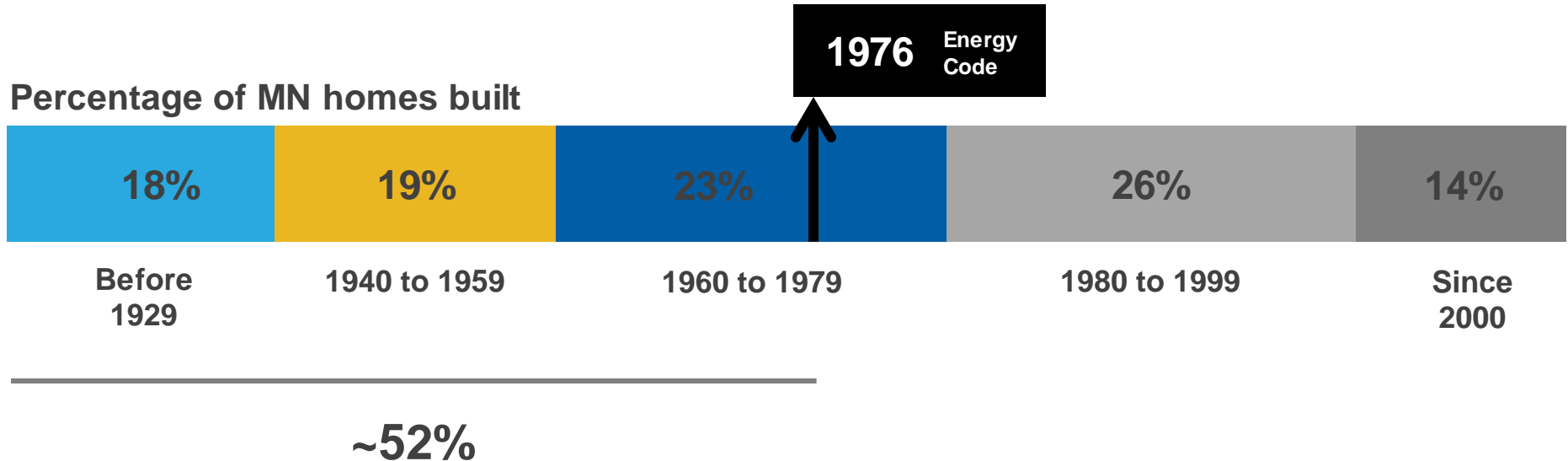
Home Envelope Works All Year Around



PROPERLY INSTALLED INSULATION MAKES IT LESS EXPENSIVE TO KEEP YOUR HOME IN THE COMFORT ZONE,



400,000+ Minnesota homes have inadequate insulation



CEE is a Resource for Each Step Towards Sustainability



COMMON OPPORTUNITIES FOR ELECTRIFICATION

•• Replace appliances

- Electric stoves/ranges
- Induction stoves
- Heat pump water heaters
- Heat pump driers



•• Heat Pumps

- Heat pumps can cool space in the summer and heat for part of the winter
- Even if you currently do not have central AC, ductless systems can be installed



HOME ENERGY SQUAD



Home Energy Squad is provided by CenterPoint Energy and Xcel Energy and delivered by Center for Energy and Environment



- Available to CenterPoint Energy and Xcel Energy customers in 1–4 unit homes
- Homeowners and renters
- In-home visit includes installation of energy saving products and customized report with recommendations on improving comfort and efficiency in your home.

•• Products Installed to Save Immediately



- High efficiency aerators and showerheads
- LED bulbs
- Attic hatch and door weatherstripping
- Programmable or smart thermostat

Xcel Energy electric customers with central AC are eligible for a free smart thermostat with AC Rewards enrollment.



•• Diagnostic Tests



- Blower door test checks for air leakage and helps to determine if there is adequate ventilation in the home.
- Infrared camera shows areas to improve insulation.
- Combustion safety check on heating system and water heater



ENERGY FITNESS PLAN



The Home Energy Squad is provided by [CenterPoint Energy](#) and delivered by the [Center for Energy and Environment](#), a Minnesota nonprofit.

This Energy Fitness Plan report summarizes findings and prioritizes the recommendations made by the energy expert(s) during your visit.



Contact your Energy Advisor at CEE with questions or for any help.

612-244-2484 or energyadvisor@mncee.org



TODAY'S STEP

1 energy efficiency installs

TOP RECOMMENDATIONS

See report for details

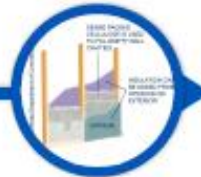
CUSTOMER:

ADDRESS

1234 Summit
Minneapolis, MN 55448

VISIT DATE

Oct 17, 2019



INSULATE YOUR EXTERIOR WALLS



AIR SEAL AND INSULATE YOUR ATTIC

ENERGY EXPENSE

WALL INSULATION

3 points

SIDEWALL

You have 3 inches of insulation in your walls for a total R11.9.3 out of a recommended R15.

UPON REMODELING, CONSIDER ADDITIONAL WALL INSULATION

Additional wall insulation can generally not be based on energy alone. However, consider additional upgrades as part of a remodeling project.

AIR SEAL AND INSULATE ATTIC HATCH

A common weak point in the home's thermal boundary is attic access. Your access hatch lets warm air from your home escape into your attic. To prevent this, an insulation contractor can air seal and insulate your hatch using rigid foam insulation board, caulking, or other materials to create a tight seal.

INSULATE YOUR EXTERIOR WALLS

It appears that there is little insulation present in the walls. Notice how the wood framing actually warms than the surrounding wall cavity? An insulation contractor can insulate exterior walls by blowing in dense-packed cellulose. Doing so can greatly reduce heat loss, improve indoor comfort levels, and lower your monthly energy bills. Insulated walls often mean that your home is quieter too.

REBATES



Your Energy Advisor is here to help you earn the [Whole Home Efficiency Rebate](#) from Xcel Energy. Complete at least one Comprehensive Insulation project and two other rebate projects. Contact your Advisor with questions by phone or by email: 612-244-2484 or energyadvisor@mncee.org.

1

STEP 1

Complete at least one comprehensive insulation project.

2

STEP 2

Complete at least two other qualifying projects.

3

STEP 3

Contact your Energy Advisor to schedule your free inspection.



See Xcel Energy's [website](#) for details. Be sure to use a [rebate-eligible](#) contractor for this work.

LIMITED TIME BONUS: Complete your projects and your free inspection by November 30, 2019 and Xcel Energy will increase your entire Whole Home Efficiency Rebate by 25%!

REBATE	AMOUNT	NOTES
Comprehensive Attic Air Sealing and Insulation	30% of project cost, up to \$300	
Comprehensive Wall Insulation (at least 75% of exterior walls)	30% of project cost, up to \$300	
Air Leakage Reduction (25-29%) Air Leakage Reduction (30% and above)	\$150 \$200	
Boilers 95%, 90% or 84%	\$400, \$300 or \$125	
15+ SEER / 11+ EER / 9+ HSPF Ductless Mini-split Heat Pump	\$200	
0.90 EF Tankless / 0.70 EF Storage / 0.67 EF Storage Gas Water Heater	\$250, \$175 or \$100	

CUSTOMER:

Jennifer Staples

ADDRESS

123 Main Street
St. Paul, MN 55101

VISIT DATE

Apr 12, 2019

ENERGY AUDIT

Bruce Langston



❖ Insulation Quote



Homeowner Information

Fourth Ave Apartments
187 Sesame St, Minneapolis, MN 55414
612-222-2222



Technician: Stacy Camp Yr. Built: 1947 Sq Ft: 2300 Cfm 50: 4000 Date:

INSULATION QUOTE			
	UNITS	QTY	COST
Attic Insulation			
Insulate & weatherstrip existing attic ceiling/wall access	each	1	
Seal all attic bypasses: flue/chimney/plumbing stack/top plates/elec./fans	total	1	
Seal below kneewall (rigid barrier)	lf	70	
Dense Pack under floor and blow insulation over floor to achieve R50	sf	450	
total			
Insulate kneewall/built-ins to R30 with fiberglass batts and house wrap -	sf	350	
Re-insulate areas after air sealing	sf	150	
Dense pack slants to capacity	sf	325	
Install new roof vent - grey	each	2	
Remove and reinstall existing vent -	each		
Install vent chutes	each	50	
		Subtotal	\$3,645
Exterior Wall Insulation			
Dense pack masonite sided walls from the exterior	sf	1142	
		Subtotal	\$1,827
Additional Items (Required)			
Exterior lead safe work - pre-1978 homes	each	1	\$235
Conduct water heater and/or furn/boiler spillage test when work is complete	each	1	\$35
Conduct house air leakage test when work is complete	each	1	\$80
		Subtotal	\$350
Notices			
NOTES: Estimate scheduled with contractor for wall insulation quote.			
		Total	\$5,822
		Estimated CenterPoint Rebate*	\$500
		Total After Rebates	\$5,322

• Energy Advisor Service

The Energy Advisor Service can be your guide to a more efficient home:

- Review your audit report
- Listen to your goals
- Identify the highest impact project plan
- Connect you to high quality contractors
- Ensure you earn the best rebate
- Connect you to low interest financing options

energyadvisors@mncee.org or 612-244-2484



• Signing up for a Home Energy Squad visit

Get \$30 off a Home Energy visit for attending this workshop!

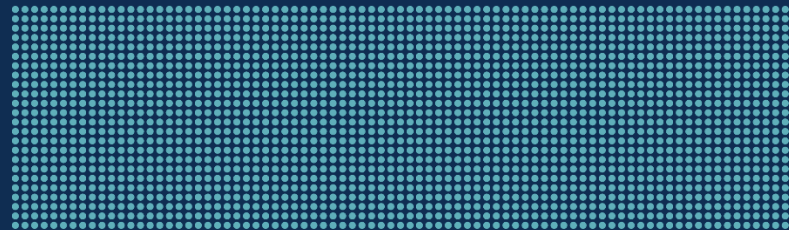


To schedule:
Call 651-328-6220 or
visit mncee.org/hes

Free Visits for Income Qualified Households

2023 Income Guidelines

Household Size	Three Month Maximum	Annual Income
1	\$8,809	\$35,237
2	\$11,520	\$46,080
3	\$14,230	\$56,922
4	\$16,941	\$67,765
5	\$19,651	\$78,607
6	\$22,362	\$ 89,450
7	\$22,870	\$ 91,483
8	\$23,378	\$ 93,515



**THANK
YOU!**

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612-244-2429
groca@mncee.org