

# *Creating* an Energy Wise **HOME**



**Minnesota Valley Electric Cooperative**

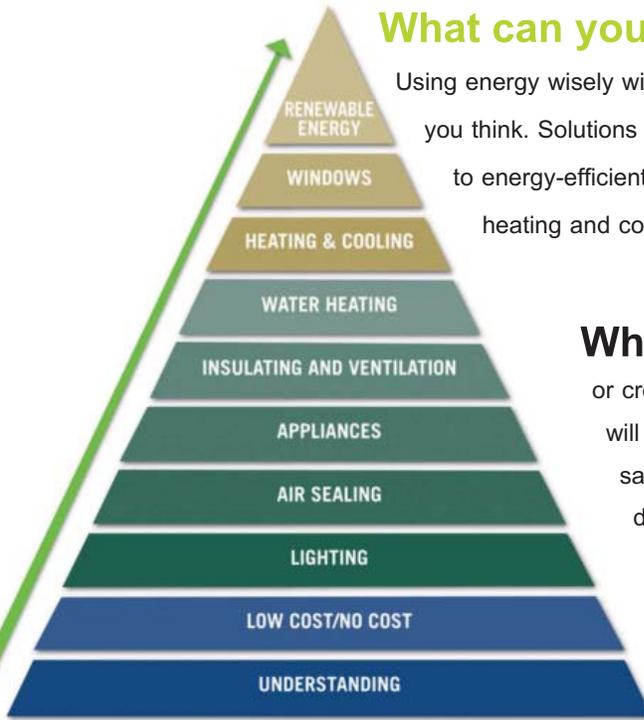


**Building a new house? Remodeling your existing home? Just want to make an improvement? You have the power to lower your home energy consumption, without compromising your lifestyle and comfort levels.**

Minnesota Valley Electric Cooperative's energy specialists are here for you and can provide free advice on innovative programs and resources to help you make energy-efficient decisions.

## What can you do?

Using energy wisely will lower your energy usage and monthly electric bill, and it's easier than you think. Solutions range from low-cost (as simple as energy use awareness, switching to energy-efficient light bulbs and sealing cracks) to higher cost, such as upgrading heating and cooling units, replacing windows and investing in renewable energy.



## What is Energy Wise?

In exchange for a lower rate, discount or credit, during times of high system-wide electric usage, the cooperative will occasionally control your heating or cooling load - easy savings without sacrificing your comfort. Energy Wise® decreases power consumption at peak times and helps the entire cooperative save money on high wholesale power costs. Which is good for the environment, too.



## What electric rate do you want to pay?

### Pay full price rates

You can pay MVEC's full general service rate. But why?

### Enjoy savings up to 50%

on your electric rate with Energy Wise programs for electric heating, cooling, electric water heating, and electric vehicle charging.

### Receive an Energy Wise discount/credit

- \$7/month credit for electric water heating
- 10% off June-Sept. electric bills with Energy Wise summer cooling program or Wifi thermostat program

**Need help paying for your Energy Wise installation?**

**We have low interest financing!**



**Buy smart and get \$25 to \$1,000 cash back!**

**We have rebates for Energy Star appliances and Energy Wise® products**

such as air source, ground source and mini-split heat pumps, boilers, plenum heaters, cove heaters, baseboard and garage heaters; and also for air conditioner or heat pump tune-ups, high efficient furnace motors and WiFi thermostat installation.

**Find rebate forms at [www.mvec.net/](http://www.mvec.net/)**



**Our energy specialists can also recommend the right contractor for the job!**

# Water Heating



Water heating accounts for approximately **14-18% of your utility bills.**

**64 gallons** is the amount of water used by the average household **EACH DAY.**

**\$490-600** is the average amount a household spends on water heating **EACH YEAR.**

Wouldn't you rather pay significantly lower costs with **ENERGY WISE?**

Water heating is your household's second largest energy expense. But you can enjoy all the hot water your family needs for up to **55 percent less** when you participate in Energy Wise®.

## These electric water heater tanks have a lifetime warranty!

### Marathon

Standard Features:

- Seamless polybutene tank
- Heavy Duty Insulation
- No anode rod, recessed brass drain
- LIFETIME warranty on the tank
- 5-year warranty on the elements

Tank sizes:

#### 85-gallon unit

70.25" tall x 28.25" diameter;

134 pounds

#### 105-gallon unit:

70.75" tall x 30.25" diameter;

152 pounds



### Westinghouse

Standard Features:

- Stainless Steel Tank
- Heavy Duty Insulation
- No anode rod, recessed brass drain
- LIFETIME warranty on the tank
- 5-year warranty on the elements

Tank sizes:

#### 80-gallon unit

69" tall x 23.25" diameter;

151 pounds

#### 100-gallon unit

61" tall x 27" diameter;

188 pounds



## Easy ways to save on your water heating bill

**USE LESS**  
hot water.

Wash clothes in  
COLD WATER.

Purchase  
**ENERGY STAR**  
APPLIANCES,  
such as  
dishwashers and  
clothes washers.

**FIX LEAKS:**  
A leak of one  
drip per second  
can cost  
\$1 a month.

Install  
**LOW-FLOW**  
FAUCETS AND  
SHOWERHEADS.

Set water  
heater  
thermostat to  
**120**  
**DEGREES F.**

# Cooling & Heating



Enjoy versatile energy efficiency through the seasons with an Air-Source Heat Pump (ASHP). It functions as a hyper-efficient central air conditioner, as well as a source of supplemental heat.

## Air Source Heat Pump

- 150-375% energy efficient (the average is 275)
- Provides 100% of your cooling and dehumidification
- Save up to 50% on heating costs with heat pumps in the spring and fall
- Rebates available on heat pump units with an Energy Star Seasonal Energy Efficiency Ratio (SEER) of 13 or higher



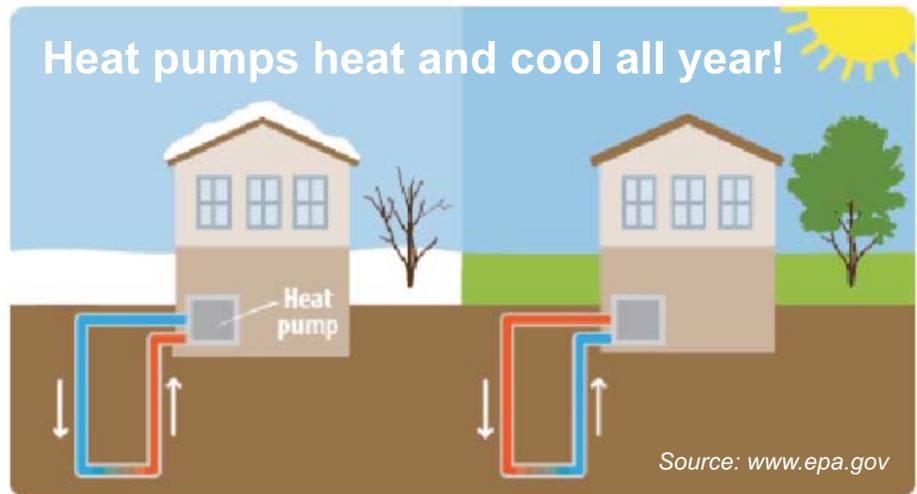
### How does it work?

A heat pump has a compressor and two coils made of copper tubing. In heating mode, liquid refrigerant in the outside coil extracts heat from the air and evaporates into a gas. The indoor coils release heat from the refrigerant as it condenses back into a liquid. A reversing valve, near the compressor, can change the direction of the refrigerant flow for cooling, as well as for defrosting the outdoor coils in winter.

During the spring and fall, you may not need to run your furnace at all - just the furnace fan.

## Ground Source Heat Pump

- Also known as geothermal
- Usually installed with new construction
- Relies on the warmth of the earth for heating and cooling
- Does not create heat; it simply moves it from one area to another.
- 50--70% lower operating costs than most other heating systems
- MVEC Energy Wise rates and rebate available



## Ways to save on your heating & cooling bills

- ▷ Set thermostat temp slightly lower in the winter and higher than normal in the summer. Start your cooling process early in the day.
- ▷ Upgrade windows or add insulation to prevent heat and cooling loss.
- ▷ Keep your HVAC system cleaned and tuned each year to help your system work as efficiently as possible. MVEC offers a rebate for AC and air source heat pump tune-ups and a rebate for high efficient furnace motors.

Heating and cooling is the **largest energy expense**

in your home, accounting for **OVER HALF** of your utility bills.

Wouldn't you rather pay **significantly reduced electric rates** with **ENERGY WISE?**

# Heating



## Electric Plenum Heater

A plenum heater is an electric resistance heating device that is installed in the plenum chamber, which is the spot in your home's ductwork system where ducting and the furnace join. Air is heated as it flows across electric elements and then is distributed through the existing ductwork.

It's a low-cost way to upgrade your heating system and turn your fossil-fuel furnace into a dual-fuel system, which allows you to take advantage of low Energy Wise electric rates.

- 100% efficient, clean and quiet
- 100% safe and flameless
- Heats evenly
- Modulates to let a heat pump be set to a lower cut-off temperature.
- Rebate available



**Nice to know:** A plenum heater saves on the life of your gas furnace as it only uses the furnace fan and ductwork. The burner is only needed when MVEC is in load control.

## Like warm floors?

### Electric Boiler

An electric boiler heats your home by heating water that circulates through tubing installed in the floor or in hot-water baseboard heaters. An electric boiler can be zoned to regulate the temperature in different areas of your home.

- No venting necessary
- Heat radiates from the floor, providing even heat
- Safe, clean and quiet — great comfort control
- Easy installation with low maintenance
- 100% efficient
- Small, compact and lightweight units
- Energy Wise rates and rebate available



Boilers are ideal for bathrooms, kitchens, foyers, basements and garages, as well as rooms with vaulted ceilings

**Important notice:** if electric heat is the main source of your home's heating system, you may be exempt from Minnesota sales tax during the heating season. That means even more savings!

**LOCAL  
TRUSTED.  
SERVING  
YOU.**

**The Cooperative Difference:** As a member of Minnesota Valley Electric Cooperative, you are more than a customer — you are a member-owner. It's our goal to provide you with quality electric service, as well as beneficial products and member services, while maintaining competitive energy prices. Energy Wise is just one of the tools we use to do so.



# Heating

Here are other convenient electric applications that can be utilized in your home and qualify for Energy Wise® programs:

- Baseboard heaters
- Cove heaters
- Fan forced heaters
- Ice melt for sidewalks or garage aprons



Cove heat



Baseboard Heat

Sidewalk  
ice melt



Fan forced heat

Electric resistance heating, also known as zone heating, is 100% energy efficient. Zone heating is effective when you want to focus on heating a specific area of your home. Electric resistance heating may also make sense for a home addition if it is not practical to extend the existing heating system to supply heat to the new addition.



## Electric Garage Heater

- No venting necessary
- 100% efficient
- 5,700 watts/19,500 BTU
- Mounted from ceiling or wall
- Provides added comfort during cold winter months
- Energy Wise® rates available
- Built in thermostat with on/off switch
- Rebate available



# WiFi Thermostat

## Be in control wherever you go!

Ever leave the house and realize you've forgotten to turn the thermostat up or down?

Do you want the ability to remotely change your home's temperature settings from anywhere while on the go?

- Convenient way to control your home energy usage
- Receive a 10% credit on all electric usage June through September
- Free thermostat when installed to Energy Wise® program
- Installation rebate available



# Electric Vehicle

If you have or are considering the purchase of an electric vehicle, we have a "green" program for you. On occasional days when the cooperative experiences a period of high electric usage, wait to charge your vehicle during non-demand times, and you'll pay reduced electric rates for your vehicle charging time.

- Car charger can be hooked up to an Energy Wise meter
- Program specifications depend on your vehicle model and if other Energy Wise programs are in your home
- Program also available to "really go green" by powering your electric vehicle with 100% wind energy



## Keep track of your usage and savings with SmartHub!

Manage your electric account 24/7 by computer or smartphone with SmartHub. It's simple and quick to make a payment or view your hourly meter data. You can compare bills and find out what day of the week or hour of the day you typically use the most electricity.

## Why does it matter?

MVEC's residential Energy Wise programs give members our best electric rates. These programs emphasize our commitment to promoting wise and efficient use of electric energy. Plus they save you money through bill credits or reduced electric rates.



Join over  
**16,000**  
MVEC members  
who participate in  
Energy Wise®

# Putting the pieces together



Energy Wise Switch ▶

MVEC's Energy Wise switch cycles electric loads during peak energy use periods, allowing you to save on household energy costs and keep your family comfortable all year-round.

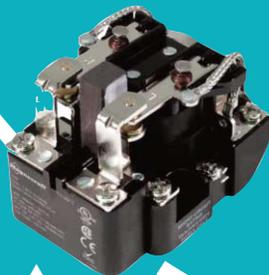


▲  
Main meter on your house records your full-price electric rates

▲  
Energy Wise meter records your discount electric rates!



▲  
Energy Wise Switch



▲  
Relay Cube



▲  
Current Transformer



▲  
Current Transformer Box

Turn your abode into an energy efficient home!  
Contact your co-op energy experts at

*Free advice | low interest financing | contractor sourcing | money-saving rates and rebates — we can help with it all!*

# MVEC

Minnesota Valley Electric Cooperative

Your Touchstone Energy® Cooperative 

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