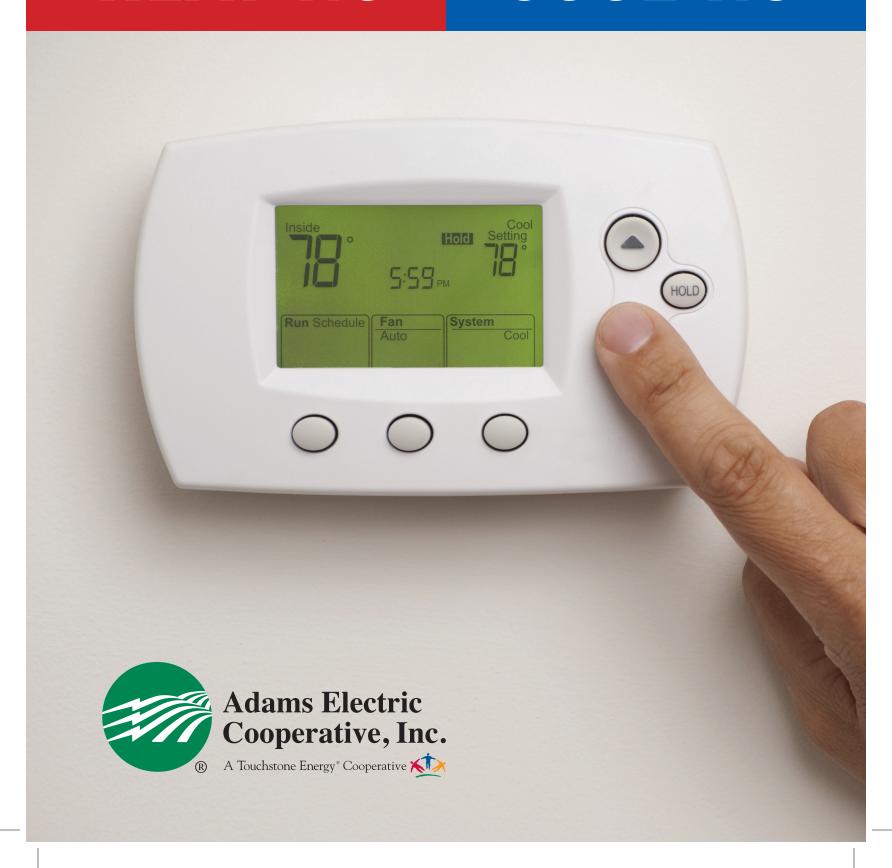
### PREFERRED

# HEATING + COOLING



### **ELECTRICITY PROVIDES A VARIETY OF BENEFITS.**

Heat pumps are highly efficient and help to maintain a comfortable home. In the warmer months, the units extract heat from inside your home and send it outdoors. In the cooler months, they do the opposite, bringing warmer air indoors from the outside. They can be paired with fossil fuel furnaces in a "dual-fuel" combination or with an electric thermal storage (ETS) unit that moves the use of electricity to off-peak periods as part of the co-op's U-Shift, U-Save program.



#### **GROUND-SOURCE HEAT PUMPS**

A geothermal or ground-source heat pump has the lowest operating cost of any heating or cooling system on the market. Using ponds, streams or underground loops in wells, the units collect heat from the ground in the winter and disperse heat into the ground during the summer. May qualify for a 30 percent federal tax credit until 2016.



#### **AIR-SOURCE HEAT PUMPS**

During cold weather, an air-source heat pump absorbs heat from the air outside and transfers it indoors. During warmer weather, the pump extracts heat from inside a building and pumps it outside. Heat pumps are especially efficient in spring and fall, when there may be a need for both heating and cooling comfort.



#### **ELECTRIC THERMAL STORAGE UNITS**

#### **ELECTRIC THERMAL STORAGE**

Electric Thermal Storage (ETS) units are designed to use off-peak electricity for heating a specific space (living room, family room, bedroom or basement). During off-peak hours, when electricity costs are lower, an electric coil heats high-density ceramic bricks inside the unit. The bricks store heat for at least 12 hours. The stored heat is released to warm individual rooms during peak hours when rates are higher.



#### **HEAT PUMP PLUS**

Heat Pump Plus systems combines an air-source electric heat pump and an interruptible electric thermal storage (ETS) unit. Ceramic bricks inside the ETS booster are heated electronically, off-peak. The ETS acts as a backup to the heat pump when the outside temperature drops below freezing. It also monitors the temperature of the air to assure maximum comfort.

### **SHIFT YOUR ENERGY USE AND \$AVE**

The co-op's U-Shift, U-\$ave program moves the use of electric water heaters, heating and cooling systems and other interruptible equipment to off-peak hours. As the name implies, members benefit when they shift their use of electricity to non-demand hours. Help reduce expensive demand peaks which take place on the coldest winter weekdays and hottest summer weekday afternoons by joining 10,000 other members who shift their use.







**U-SHIFT AIR CONDITIONING** asks members to allow an interruptible switch to be installed free of charge (a \$215-value) on their heat pumps and central air units and earn a seasonal bill credit for the months of June, July and August.

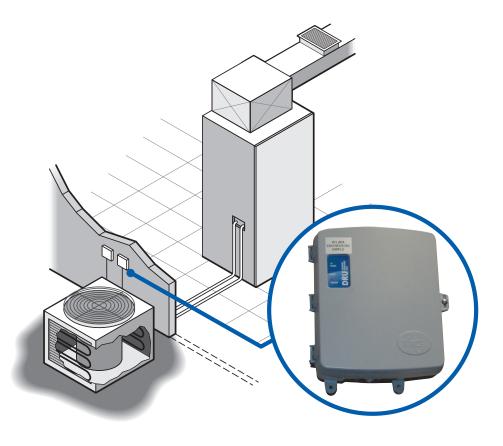
**U-SHIFT OFF-PEAK RATE** asks members to install an interruptible separately-metered subpanel and meter base (at their expense), but then provides about a 50 percent rate reduction in the energy supply section of the bill for all the electricity that flows through that subpanel which may be interrupted by the cooperative during peak demand hours.

**U-SHIFT TURN OFF, TURN UP** asks members to turn off major appliances and turn up their thermostats a few degrees on the hottest weekday afternoons between the hours of 1 and 7 p.m. These include dishwashers, and washers and dryers. Members are asked to use the microwave or barbecue grill to cook their meals during these critical hours.



Above, members sign up to have a U-Shift Air Conditioning switch added to their heat pump after hearing a presentation at an Adams Electric member (zone) meeting. The diagram on the right shows where the U-Shift switch is connected to your home's central air unit.

\*\*Note: Adams Electric cannot guarantee the duration or extent of any periods of interruption due to the everchanging nature of electrical demand on the power grid which provides power to the co-op's substations and metering points. Members participating in the U-Shift incentives must understand that periods of interruption can be extended without notice due to unforeseen circumstances on Adams Electric's distribution system and the energy supply grid.



### **HOME ENERGY AUDITS**

ADAMS ELECTRIC OFFERS FREE, IN-PERSON, WALK-THRU HOME ENERGY AUDITS TO MEMBERS. During consultations, an energy specialist will sit down with you and discuss your reasons for completing the audit. Do you want new heating and cooling? Are you trying to make your home more energy efficient? Make sure to know the goal you are trying to accomplish by conducting the audit. After gathering as much information as possible, you will receive specific recommendations to help you achieve your goals. If you have any follow-up questions about your recommendations, contact the co-op and a member of the energy use team will be happy to discuss your options with you.

For more information or to schedule an audit, call 717/334-9211 or toll-free 888/232-6732.

**ONLINE ENERGY ANALYSIS:** For the do-it-yourselfer looking to make some quick changes to your home to increase its efficiency, look no further than Touchstone Energy's Together We Save energy programs found at *adamsec.coop*. Part of Together We Save, the **Home Energy Savings Tour**, allows users to "see the savings add up" as they click through different rooms in a house and add projects to their to-do list. The **Home Energy Analysis** tool takes a more specific look at your home, based on system inputs. After you enter information about your home (year built, size, occupants, etc.) the program will offer you specific ideas on how you can save money on your energy bill.

## **Heating and Cooling Tips for Manufactured Homes**

If you own a manufactured home, take measures to ensure you have an efficient heating and cooling system. You can also make simple improvements that save energy and make your home more comfortable.

#### \$ Install ceiling fans Install ceiling fans throughout your \$ Option for smaller budgets manufactured home. Ceiling fans are \$\$ Option for flexible budgets energy efficient and can be used to keep warm or cool air moving throughout your home. Be sure to turn them off when you're away. Remember, ceiling **\$\$** Efficient roof color fans cool people, not rooms. Choose a light-colored roof if you live in the southern part of the U.S. and a darkcolored roof if you live in the northern U.S. \$\$ Install a mini-split system Eliminate unnecessary heating and cooling by installing a single zone strategy throughout your manufactured home. A zone system allows you to save energy by only heating or cooling rooms that are occupied \$ Install awnings Install awnings over windows to keep sunlight from overheating your home during the \$\$ Add insulation If you have a home that was manufactured before 1976, you could add insulation to your home's underbelly to reduce any heat loss. Source: U.S. Dept. of Energy

### **ENERGY EFFICIENCY**

Check your filter every month, especially during heavy use months (winter and summer). At a minimum, change the filter every three months. A dirty filter will slow down air flow and make the system work harder — wasting energy. A clean filter also prevents dust and dirt from building up in the system.





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