SAVE ON HEATING
NOVEMBER ENERGY ACTION SHEET

This month's projected annual savings: 9% of energy use

This month:

- Set your thermostat back when you're out or asleep. **Turning your thermostat down 7° to 10° degrees for eight hours can save 10% on your heating bill.** Forgetting to turn it down wastes a load of energy. A programmable thermostat remembers for you, warms your space back up before you rise or return home, and typically pays for itself quickly.
- Consider how you use your living space. Unless you use most of it most of the time, save by using local heaters instead of central heat.
- If you own your home, decide what type of heating unit you'll buy next. **Today's efficient models can slash your energy use.** When a furnace breaks down, there's little time to research options. Thinking this through now will help you make a wise investment later.

In a typical home, heating accounts for more energy use than anything else. Save a lot by staying warm without wasting energy.

References available upon request from CreationCarePartners@gmail.com. This This info sheet employs the Task of the Month concept developed by Dr. Stephanie Kimball for Earth Care, an affiliate of Hoosier Interfaith Power & Light.

HOW TO DO IT: DON'T "OVERHEAT" OR HEAT EMPTY ROOMS

1) **Decide on your temperature settings.** Temperature settings are a household affair. Discuss this sheet together as a household - why you want to do this, any challenges or drawbacks and how you might overcome them. After considering this table, fill in the worksheet below with your household's schedule and the temperatures you've decided to start at. Celebrate your compromises and your successes.

	Best Practice for Staying Comfortable While Saving Energy
At Home (awake)	Find a temperature that is comfortable. Dress seasonally – e.g., long johns, sweaters and warm socks. Each week, lower the temperature by one degree until you notice a change in comfort level.
At Home (asleep)	Program/set it 7° lower than "At Home (awake)" until a half hour before you awake. Wear warm PJs, pile on the comforters. Each week, lower the temperature by one degree until you notice a change in comfort level.
Out (usual)	Program/set it for 5 - 10° lower than "At Home (awake)" until ½ hour before you return. Every few days, notch the "Out (usual)" temperature down a few degrees until it feels noticeably different when you return home.
Out (unusual)	Whether going out for hours or for days, manually set and hold it at 50°. Immediately upon your return, remove the hold.

Initial Temperature & Schedule Worksheet

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Temp.
Awake (AM)								
Out for the day (AM/PM)								
Return home (PM)								
Asleep (PM/AM)								

2) **If you don't have a programmable thermostat, buy one if possible.**. Install it yourself or have it installed.

IF YOUR SCHEDULE…	BUY A
differs each day,	7-Day.
is the same for 5 consecutive days but differs for 2 days off,	5-1-1.
is the same for 5 consecutive days and the same for 2 days off,	5-2.
is the same every day,	1 week

If you want a thermostat that sets itself, buy a "smart" thermostat. If you just want to set it remotely, buy one that's Wi-Fi-enabled. Find more about the options here.

3) **Set it**. Find directions for your brand online, like these for a Honeywell.

HOW TO DO IT: DETERMINING WHAT TYPE OF HEATING UNIT TO PURCHASE NEXT

Be ready: Find a few respected contractors comfortable with new technologies

If you are not hooked up for natural gas and heat with electricity, oil or propane, an electric air source heat pump could save you a boatload. These both heat and cool.

The most efficient are "ductless mini-splits". These use much less energy than baseboard heaters or window AC units but, like the latter, can heat and cool solely spaces that are used. Where the temperature falls below 32°, get a "cold climate" pump (and have a space heater on hand for temperatures below minus 13°).

Ductless mini split indoor unit

If you currently heat with natural gas, upgrading to a higher efficiency unit can be an excellent investment. You'll quickly recover the higher price with savings. Calculate how long it will take to recoup the investment as follows:

a) Find your current unit's "AFUE" (annual fuel utilization efficiency).

b) Estimate your annual heating expense.

c) Use these to calculate your annual expected savings from the new unit:

$$\text{annual expected savings} = \left(1 - \frac{\text{AFUE of current unit}}{\text{AFUE of new unit}}\right) \times \text{annual heating expense}$$

d) Divide the difference in price by the annual savings to get the payback period.

For example, if the current AFUE is 80%, the annual heating expense is $1K, and upgrading to a 95% AFUE unit will cost $600 more than buying another 80% unit:

$$\left(1 - \frac{80\%}{95\%}\right) \times \$1000 = \$160 \text{ annual savings} \qquad \$600/\$160 = 3.75 \text{ years}$$

the payback is 3.75 years – and you'll save $1600 more over the next ten years.

If you typically do not use part of your home, local heaters - space heaters, radiant heat, or baseboard heaters - are great options. *But be aware:* heating your *whole* home at once with these uses ***more*** energy than central heat. Note also that closing vent register wastes energy while making your furnace work harder.

Estimated Annual Savings	**Energy Footprint**	**Financial**
Lower thermostat by 4°F.	2.6%	$50
Lower thermostat at night & when away by 10°F	4.5%	$185

These figures assume a 2000 sq. ft. home and will vary greatly depending on the home.