

THE ADVANTAGES OF ELECTRIC HEAT

Electric heating systems are low cost and easy to maintain. They're efficient, transforming all their energy into heat. They're safe. Flameless operation means there are no fuels burned in your home which can cause toxic and combustible fumes.

Versatility

Heat pumps can compliment your present system. If you have an air conditioner, you can replace it with an energy efficient electric heat pump. Electric heat pumps can be teamed with electric, gas, or propane furnaces. Electric heat pumps work all year round — economically heating your home in winter and cooling it in summer.

Efficiency

When it comes to efficiency, it's hard to beat a heat pump. Ground source heat pumps operate at an efficiency rating of 300-400%. Efficiency ratings of air source and dual fuel heat pumps range from 160-230%. Conversely, most gas and propane heating systems run at only 70-95% efficiency.

Year-Round Energy Savings

The money you save with an electric heat pump really adds up. Because they work year-round, you'll see that savings, day after day for the entire year.

It Pays To Compare

With the wide number of heating and cooling choices you have, it is sometimes difficult to determine which is best for you. What you really need to know is the seasonal operation cost of each system. To help, we have assembled a comparative list of heating and cooling systems showing the most common energy efficiency for each type of equipment.

It Pays To Compare

Estimated Seasonal Costs

Typical 1500 Sq. Ft. Home

Graph Below:

Seasonal Heating Costs	Seasonal Cooling Costs	TOTAL COST
------------------------	------------------------	------------

- Ground Source Heat Pump

\$286	\$106	\$392
-------	-------	-------

- Air Source Heat Pump with Electric Furnace

\$430	\$150	\$580
-------	-------	-------

- Air Source Heat Pump with 80% Gas Furnace

\$573	\$150	\$723
-------	-------	-------

- Air Source Heat Pump with 80% Propane Furnace

\$687	\$150	\$837
-------	-------	-------

- Electric Furnace and Electric Central Air Conditioner

\$859	\$150	\$1,009
-------	-------	---------

- 90% Gas Furnace and Electric Central Air Conditioner

\$920	\$150	\$1,070
-------	-------	---------

- 90% Propane Furnace and Electric Central Air Conditioner

\$1,257	\$150	\$1,407
---------	-------	---------

Estimates based on the following energy costs: Loup's residential winter rate of 4.25 cents per kilowatt hour and summer rate of 6.65 cents per kWh; natural gas cost of \$1.20 per therm, and propane cost of \$1.50 per gallon.

To learn more about the advantages of low cost electric heat, contact your local LOUP POWER DISTRICT representative or your heating and cooling contractor.

Updated 1-1-08.

The Electric Advantage

Only electricity offers you so many choices to fit such a wide variety of needs. No flame, no soot, no chimney and no fuels — which means no toxic or combustible fumes.

From room-by-room alternatives, to convenient whole-house systems, to energy-efficient water heating, electric equipment offers **CLEAN, SAFE, ECONOMICAL COMFORT.**



LOUP POWER DISTRICT

"*Serving You Electrically*"
www.loup.com

Home Efficiency Checklist

Are you aware there are a number of easy, inexpensive, do-it-yourself projects that will reduce your heating and cooling costs and also make your home a healthier, more comfortable place to live? Here is a checklist to help you identify any problem areas in your home.

Note: The energy savings and installation costs will vary significantly, thus the cost effectiveness of each measure should be evaluated on a case-by-case basis.

Attic

- Insulate the attic to R-38. If it is over R-30, go on to other items before adding more. R-30 is approximately 10 inches of fiberglass batt or cellulose.
- Attic vents need to be unobstructed and open to provide adequate air ventilation.
- Caulk electrical wire penetrations at the top of the interior walls and wires into ceiling fixtures.
- Insulate attic access door by attaching extruded (pink or blue) foam insulation to the backside.
- Weather-strip attic access door.
- Seal around the plumbing stack(s).
- Seal around the chimney using a high temperature sealant such as muffler cement and metal flashing where necessary.
- Seal all other holes between the heated space and the attic.

Main Level

- Install foam gasket on all exterior electrical wall outlets and switches.
- Caulk along baseboards with a clear sealant.
- If you have a room air conditioner, remove it for the winter or seal it up and insulate it.
- When unable to replace an inefficient window, install plastic over the inside of the window. If you desire something more permanent than plastic, install an interior storm window.
- Replace broken glass and any loose caulking.
- Replace old leaky windows.
- Use low expanding foam around the new window woodwork, caulk where the frame meets the wall and all other joints in the window woodwork with a clear sealant.
- Replace an old warped entry door with a new insulated door.
- Check weather-stripping on windows and doors.

If you have a floor over an unheated space, such as a tucked-under garage,

- Insulate the space between the floor and garage to R-20 or greater.

Basement

- Seal any holes in the foundation wall with caulk or foam sealant.
- Caulk around the basement windows.
- If you have a crawl space, place a layer of plastic on the dirt floor.
- Insulate the crawl space walls with 1 1/2 inches of extruded (pink or blue) foam insulation.
- Seal the band joist with caulk or foam and insulate.
- Insulate the basement walls by using 2x2 furring strips with 1 1/2 inches of extruded (pink or blue) foam insulation between the strips and cover with drywall.

If you have a fireplace:

- Check to make sure the damper is closed tightly when not in use.
- Install tight fitting glass doors and/or make a decorative insulated cover for it.
- Install a top sealing damper.
- Provide outside air for combustion.

Exterior

- Caulk around all penetrations such as telephone, cable, gas, dryer vents, electrical outlets, water faucets, etc.
- Caulk around window and door frames. If you have combination storms, caulk around the storm windows where the metals meet the window frame. If you have wooden storms that must be exchanged for screens in the summer, use rope caulk to seal around the storm.
- Install storm windows on all single-glazed windows.
- Install storm doors where you have none.
- If you are re-siding, consider adding 3/4" to 1 1/2" of extruded foam insulation with taped seams.
- Keep dryer vent screens lint free.



LOUP POWER DISTRICT

"Serving You Electrically"

www.loup.com