

# Annual Fuel Cost Comparisons

|                            |          |        |
|----------------------------|----------|--------|
| Propane Rate/Gal           | \$1.40   | Market |
| Electric Blended Rate/ Kwh | \$0.0670 |        |
| Gas Rate/therm "M"         | \$0.93   | Market |
| Electric Water Heater Rate | \$0.0670 |        |
| Corn price / bushel        | \$3.85   | Market |
| Building Load              | 459      |        |

Typical 1400 Sq.ft. home with basement. Family of 4.

| System                          | Natural Gas |       | Propane  |         | Electric |       | Corn   |           |
|---------------------------------|-------------|-------|----------|---------|----------|-------|--------|-----------|
|                                 | therm/yr    | Cost  | gal/year | Cost    | Kwh/year | Cost  | b/year | Cost      |
| <b>Water Heating</b>            |             |       |          |         |          |       |        |           |
| Gas/ Propane Water Heater       | 260         | \$242 | 284      | \$397   |          |       |        |           |
| Electric Water Heater           |             |       |          |         | 4200     | \$281 |        |           |
|                                 |             |       |          |         |          |       |        |           |
| <b>Space Heating</b>            |             |       |          |         |          |       |        |           |
| 65% Furnace (gas)               | 706         | \$657 | 771      | \$1,080 |          |       |        |           |
| 80% Furnace (gas)               | 574         | \$534 | 627      | \$877   |          |       |        |           |
| 90% Furnace (gas)               | 510         | \$474 | 557      | \$780   |          |       |        |           |
| 94% Furnace (gas)               | 488         | \$454 | 533      | \$747   |          |       |        |           |
| Electric Heat (Resistance)      | 483         |       |          |         | 14,157   | \$948 |        |           |
| Electric Heat Pump (Air Source) | 230         |       |          |         | 6,726    | \$451 |        |           |
| Electric Heat Pump (GSHP)       | 115         |       |          |         | 3,363    | \$225 |        |           |
|                                 |             |       |          |         |          |       |        |           |
| Corn Stove @ 75%                | 612         |       |          |         |          |       | 160.96 | \$ 619.70 |

|                | Gas     | Electric   | Propane   | Corn    | Gas      | Electric | Propane   | Corn     |
|----------------|---------|------------|-----------|---------|----------|----------|-----------|----------|
| 1 therm unit   | 1 therm | 29.308 Kwh | 1.092 Gal | .263 Bu | 1 MM Btu | 293 Kwh  | 10.92 Gal | 2.63 Bu  |
| Cost/ Unit     | \$ 0.93 | \$0.0670   | \$1.40    | \$3.85  |          |          |           |          |
| Cost of energy | \$ 0.93 | \$1.96     | \$1.529   | \$1.013 | \$ 9.30  | \$ 19.64 | \$ 15.29  | \$ 10.88 |

