

**HEATING COST COMPARISON  
COST PER MILLION BTU'S**

**ELECTRIC**

$$\frac{1,000,000 \text{ BTU}}{3,413 \text{ BTU/KWH}} = 293 \text{ KWH} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{KWH} = \$ \underline{\hspace{1cm}}$$

**NATURAL GAS**

$$\frac{1,000,000 \text{ BTU}}{.75 \text{ SPF X } 100,000 \text{ BTU/THERM}} = 13.3 \text{ THERMS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{THERM} = \$ \underline{\hspace{1cm}}$$

$$\frac{1,000,000 \text{ BTU}}{.90 \text{ SPF X } 100,000 \text{ BTU/THERM}} = 11.11 \text{ THERMS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{THERM} = \$ \underline{\hspace{1cm}}$$

$$\frac{1,000,000 \text{ BTU}}{.95 \text{ SPF X } 100,000 \text{ BTU/THERM}} = 10.53 \text{ THERMS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{THERM} = \$ \underline{\hspace{1cm}}$$

**PROPANE**

$$\frac{1,000,000 \text{ BTU}}{.75 \text{ SPF X } 91,500 \text{ BTU/GALLON}} = 14.6 \text{ GALLONS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{GALLON} = \$ \underline{\hspace{1cm}}$$

$$\frac{1,000,000 \text{ BTU}}{.90 \text{ SPF X } 91,500 \text{ BTU/GALLON}} = 12.14 \text{ GALLONS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{GALLON} = \$ \underline{\hspace{1cm}}$$

$$\frac{1,000,000 \text{ BTU}}{.95 \text{ SPF X } 91,500 \text{ BTU/GALLON}} = 11.5 \text{ GALLONS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{GALLON} = \$ \underline{\hspace{1cm}}$$

**OIL**

$$\frac{1,000,000 \text{ BTU}}{.60 \text{ SPF X } 140,000 \text{ BTU/GALLON}} = 11.9 \text{ GALLONS} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{GALLON} = \$ \underline{\hspace{1cm}}$$

**AIR SOURCE HEAT PUMP**

$$\frac{1,000,000 \text{ BTU}}{2.8 \text{ COP X } 3,413 \text{ BTU/KWH}} = 105 \text{ KWH} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{KWH} = \$ \underline{\hspace{1cm}}$$

**GROUND SOURCE HEAT PUMP**

$$\frac{1,000,000 \text{ BTU}}{3.6 \text{ COP* X } 3,413 \text{ BTU/KWH}} = 81 \text{ KWH} \quad \times \quad \$ \underline{\hspace{1cm}} / \text{KWH} = \$ \underline{\hspace{1cm}}$$

\*COP's include water pumping watts at 200' total dynamic heat with well pump at 25% wire to water efficiency.

COP (Coefficient of Performance) and SPF (Seasonal Performance Factor) are terms used to rate the efficiency of a heating unit.