Heating Bill Comparison

A FAMILY OF HEARTH PRODUCTS
MAGNUM
by American Energy Systems Inc.

The *right* heating alternative.

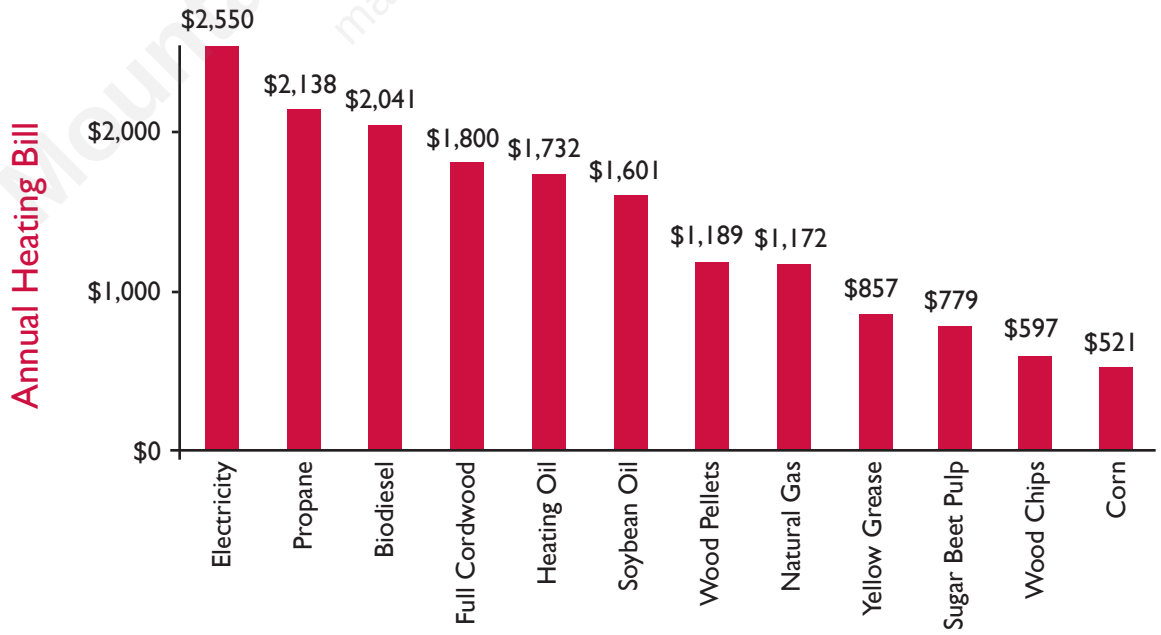
A 2,000 ft^2 home in Michigan uses nearly 85.3 million BTU of heat (MBtu) per winter. The annual heating bill is calculated as such:

H = annual heating bill in dollars
A = fuel price
B = heat content of fuel
C = furnace efficiency factor

$$H = \frac{85.3\,A}{B\,C}$$

Fuel	A	B	C	H
Electricity	$0.102 / kWh	0.00341 MBtu / kWh	1	$2,550
Propane	$1.95 / gal	0.0915 MBtu / gal	0.85	$2,138
Biodiesel	$2.55 / gal	0.13 MBtu / gal	0.82	$2,041
Full Cordwood	$140 / full cord	26.52 MBtu / full cord	0.25	$1,800
Heating Oil	$2.33 / gal	0.1399 MBtu / gal	0.82	$1,732
Soybean Oil	$2.00 / gal	0.13 MBtu / gal	0.82	$1,601
Wood Pellets	$175 / ton	15.3 MBtu / ton	0.82	$1,189
Natural Gas	$12 / kcf*	1.0265 MBtu / kcf	0.85	$1,172
Yellow Grease	$1.07 / gal	0.13 MBtu / gal	0.82	$857
Sugar Beet Pulp	$100 / ton	13.34 MBtu / ton	0.82	$779
Wood Chips	$50 / ton	10.2 MBtu / ton	0.7	$597
Corn	$1.91 / bu	0.3809 MBtu / bu	0.82	$521

* kcf = thousand cubic feet



Date: July 18, 2006
Source: C.H. Schilling, Ph.D., Department of Mechanical Engineering, Saginaw Valley State University, University Center, Michigan 48710; phone: (989) 964-2601; email: schillin@svsu.edu