

# Biomass Rules Energy Value Basics

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Biomass Rules, LLC requires a steady flow of diverse data (production, prices, policies, and news) to stay at the top of it's biomass economic game. These are the prices collected each week and converted to a \$/MMBTU (million BTU) basis. This unifying new measure is not perfect, but it allows comparisons that are not possible between barrels and bushels.

Fossil Fuels	Date	Market Price	\$/MMBTU
Crude oil	8/5/11	\$90.85 \$/Barrel	\$15.66
Gasoline	8/8/11	\$3.674 \$/Gallon	\$29.39
Diesel Fuel	8/8/11	\$3.897 \$/Gallon	\$30.28
Natural gas	8/10/11	\$4.18 \$/MMBtu	\$4.18
Liquid Propane (Gulf)	8/5/11	\$1.11 \$/Gallon	\$12.19
Heating oil	8/5/11	\$2.084 \$/Gallon	\$15.10
Electricity retail, resid.	May-11	12.02 ¢/kWh	\$35.23
Coal	8/5/11	\$47.80 \$/ton	\$2.03
<b>Liquid Fuels</b>			
Ethanol (Iowa)	8/12/11	\$2.71 \$/Gallon	\$35.59
biodiesel (Iowa)	8/12/11	\$5.31 \$/Gallon	\$44.96
Soybean oil (Central IL)	8/12/11	52.85 ¢/Lb	\$31.09
No 2, Yellow grease	8/12/11	\$44.00 \$/cwt	\$28.57
<b>Solid Fuels</b>			
Fuel pellets	8/12/11	\$213.82 \$/Ton	\$13.36
Shelled corn	8/12/11	\$7.18 \$/Bushel	\$15.74
Compost	8/12/11	\$25.00 \$/cu. yard	\$3.63
Wheat straw	8/12/11	\$80.00 \$/Ton	\$5.41
Grass hay (lg rnd bale)	8/12/11	\$50.00 \$/Ton	\$3.33
DDGS	8/9/11	\$202.50 \$/Ton	\$10.77

The price table includes various fossil and biofuels, as well as some other biomass feedstocks. The commodities are listed with the date of the most recent price, the dollar amount and traditional market units. The last column represents the energy value, \$/MMBTU, based on tabled energy content values.

Prices in terms of \$/MMBTU are not a commonly traded energy unit. Only natural gas is sometimes posted as \$/MMBTU. When purchasing energy, a low \$/MMBTU is the goal. If you are selling energy, a high \$/MMBTU is not bad.

Also, crude oil, soybean oil, shelled corn, and No. 2 yellow grease, are feedstocks for gasoline, diesel fuel, biodiesel and ethanol. They are unprocessed inputs, and can't be burned in our cars. Picking up 10 gallons of crude oil at the local convenience store doesn't work. Vegetable oil is the primary feedstock for biodiesel fuel. As a feedstock, it has a similar \$/MMBTU as fossil

diesel fuel does. Once vegetable oil is processed into biodiesel fuel, it has an even higher \$/MMBTU than vegetable oil. In the value chain, prices increase moving from inputs to retail.

The chart shows a 1-week shift in prices in \$/MMBTU. These shifts represent a relative change in value for each million BTUs (MMBTU). There are times when a large drop in a valuable commodity will drop \$2-\$3 per MMBTU. In these cases, the relative drop in one week's time can be as great as or greater than the total value of coal, which as this is being written, is around \$3 per MMBTU.

