

| More Reference Data:                                  |                                   |        | Energy Dynamics Descriptions   |
|---|-----------------------------------|--------|--|
| Water   |                                   | Gallon | (62.4 lbs. per cubic foot)   |
| Steam   |                                   | 1 Lb.  | 970  |
| Boiler Horse Power                                    |                                   | 1 HP   | 33,475   |
| mmBtu   | 1,000,000                         |        |  |
| Water #@60°   | 1                                 | 27.73  | Inch^3   |
| U.S. Gallon   | 231                               | Inch^3 |  |
| Imperial Gallon = 277 Cu Inches or 1.201 U.S. Gallons |                                   |        |  |
| Imperial to US  |                                   |        | 0.8327   |
| Cubic Feet Liquid to US Gal                           |                                   |        | 0.1337   |
| U.S. Gal per Liter                                    |                                   |        | 0.2643   |
| Liters per U.S. Gal                                   |                                   |        | 3.7850   |
| KWH= Kilowatt hour                                    |                                   |        |  |
|   | Cubic Feet per Gallon =           |        | 36.39  |
|   | Gallons of LPG per Cubic Feet->   |        | 0.027480077  |
|   | Liters per gallon                 |        | 3.785  |
|   | pound per kilogram                |        | 0.4536   |
|   | Federal DOT lbs. per gallon water |        | 8.344356261  |
|   |                                   |        |  |
|   |                                   |        | One cubic foot of natural gas produces approximately 1,000 BTUs, so 1,000 cu.ft. of gas is comparable to 1 MBTU  |
|   |                                   |        | therm, decatherm: A measurement of heat equivalent to 100,000 BTU. Decatherm is more widely used in the energy industry. A decatherm equals one million BTU.                         |
| 1mmBtu = 10 Therms                                    |                                   |        |  |
|   |                                   |        | A BTU is the amount of heat required to increase the temperature of a pint of water (which weighs exactly 16 ounces or 1 pound) by one degree Fahrenheit.                            |
|   |                                   |        | Since BTUs are measurements of energy consumption, they can be converted directly to kilowatt-hours (3412 BTUs = 1 kWh) or joules (1 BTU = 1,055.06 joules).                         |
|   |                                   |        | A wooden kitchen match produce approximately 1 BTU, and air conditioners for household use typically produce between 5,000 and 15,000 BTU.   |
|   |                                   |        |  |
|   |                                   |        |  |
| Natural Gas   | Atmospheric (CH4)                 | mmBtu  | One Million BTU's  |
| Natural Gas   | Atmospheric (CH4)                 | CCF    | 100 Cubic Feet of Gas at 60°F at atmospheric pressure.   |
| Natural Gas   | CNG                               | CCF    | Same 100 Cubic Feet of Gas at 60°F at atmospheric pressure.  |
| Natural Gas   | CNG                               | GGE    | <b>Gasoline gallon equivalent</b> (GGE) or gasoline-equivalent gallon (GEG) is the amount of alternative fuel it takes to equal the energy content of one liquid gallon of gasoline. |

|              |               |        |   |
|--------------|---------------|--------|---|
| Natural Gas  | LNG           | Gallon | LNG is reduced to about 1/600th of volume of natural gas, by refrigerating it to -256°F. Gallons are compensated for this temperature. LNG is 2.4 times heavier than that of CNG or 60% of that of diesel fuel. |
| Propane      | HD5 (C3H8)    | Gallon | LPG's are temperature adjust to 60°F  |
| Butane       | (C4H10)       | Gallon | LPG's are temperature adjust to 60°F  |
| Kerosene     | ULSK          | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Kerosene     | Jet A\ K1     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Diesel       | blends vary   | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Fuel Oil     | **            | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| BioFuel B100 | ASTM D6751    | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| #4 Fuel Oil  | n/a           | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| #6 Fuel Oil  | n/a           | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline     | 87 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline     | 89 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline     | 92 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline E10 | 87 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline E10 | 89 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Gasoline E10 | 92 Octane     | Gallon | Wholesale purchases of petroleum atmospheric liquids are generally compensated to 60°F, and sold at the standard volume, not compensated to for temperature.  |
| Coal         | Anthracite    | lbs.   |   |
| Coal         | Anthracite    | Ton    | 2000 lbs.   |
| Coal         | Bituminous    | lbs.   |   |
| Coal         | Bituminous    | Ton    | 2000 lbs.   |
| Wood Pellets | Premium       | lbs.   |   |
| Wood Pellets | Premium       | Ton    | 2000 lbs.   |
| Wood         | Green 50% MC  | Ton    | 2000 lbs.   |
| Wood         | SemiDry 30%MC | Ton    | 2000 lbs.   |
| Wood         | AirDry 20%MC  | Ton    | 2000 lbs.   |

|      |                        |      |  |
|------|------------------------|------|--|
| Wood | AirDry Maple/Oak 20%MC | Cord | A cord is the amount of wood that, when "ranked and well stowed" (arranged so pieces are aligned, parallel, touching and compact), occupies a volume of 128 cubic feet (3.62 m3). This corresponds to a well stacked woodpile 4 feet wide, 4 feet high, and 8 feet long. |
| Wood | KilnDry 0%MC           | Ton  | 2000 lbs.  |
| Wood | SoftKilnDry 13%MC      | Ton  | 2000 lbs.  |
| Wood | HardKilnDry 8%MC       | Ton  | 2000 lbs.  |
| Corn | Shelled 15%MC          | BU   | A bushel is an imperial and U.S. customary unit of dry volume, equivalent in each of these systems to 4 pecks or 8 gallons. It is used for volumes of dry commodities (not liquids). It is abbreviated as bsh. or bu.  |