

Energy and Power Conversion Factors

The tables below list conversion factors for units of energy and power used in the KEEP *Energy Education Activity Guide*. To convert from one unit of energy or power to another, multiply the value of the unit you wish to convert from (listed in the left-hand column) by the conversion factor underneath the unit you wish to convert to (listed along the top row).

Units of Energy Conversion Table					
	Joule	Calorie	BTU	Foot-pound	Kilowatt-hour
Joule	XX	0.2390	0.000948	0.7375	2.77778E-07
Calorie	4.184	XX	0.00397	0.3238	1.16279E-06
BTU	1055	252	XX	778.2	0.000293
Foot-pound	1.356	0.3238	0.001285	XX	3.84615D-07
Kilowatt-hour	3.6E6	8.6E5	3412	2.6E6	XX

Example: Convert 15 kilowatt-hours (kWh) to British thermal units (Btu).

Look for the kilowatt-hour unit in the last row of the table. Then find the converting factor under the Btu column. The conversion factor is 3,412. Multiply 15 kilowatt-hours by 3,412 to get the number of Btu.

$$15 \text{ kilowatt-hours} \times \frac{3412 \text{ Btu}}{1 \text{ kilowatt-hour}} = 51,180 \text{ Btu}$$

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