

Conversions for Transportation Energy Use

For goals reported under the Transportation Energy Use indicator, Performance Track applicants must include all types of transportation energy used at the facility. These include: Biodiesel, Compressed Natural Gas, Diesel, Electricity, Ethanol, Gasoline, Jet Fuel, Liquid Hydrogen, Liquefied Natural Gas, Liquefied Petroleum Gas, Residual Fuel Oil, and any other sources. Fuel use should be reported in the units specified on the form, which will aggregate the total in MMBtus. If you measure your fuel use in units other than those specified on the form, or if you use a fuel source other than one listed on the form, use the following factors to convert your units to the specified units.

Use the following conversion factors to convert other energy units to MMBtu:

- 1 Btu = 0.000001 MMBtu
- 1 kWh = 0.003412 MMBtu
- 1 MWh = 3.412 MMBtu
- 1 therm = 0.1 MMBtu

The following conversion factors, which are listed by fuel type, enable conversion from volume¹ to energy units. These conversion factors reflect average values; if you have a conversion factor that is specific to your facility's operations, please enter the fuel source as an "other fuel" and enter the appropriate conversion factor in the space provided.

- One gallon of Biodiesel (B100)² = 0.1183 MMBtu
- One gallon of B20 blend (B20) = 0.1273 MMBtu
- One gallon of Compressed Natural Gas (2,400 psi)³ = 0.0198 MMBtu
- One gallon of Compressed Natural Gas (3,000 psi)⁴ = 0.0330 MMBtu
- One gallon of Compressed Natural Gas (3,600 psi) = 0.0380 MMBtu
- One cubic foot of Compressed Natural Gas ("national average") = 0.00103 MMBtu
- One gasoline-equivalent gallon of Compressed Natural Gas (any psi)⁵ = 0.125 MMBtu
- One gallon of No. 2 Diesel = 0.1295 MMBtu
- One gallon of Ethanol (E85)⁶ = 0.0843 MMBtu
- One gallon of Gasoline = 0.1242 MMBtu
- One gallon of Hydrogen (3,000 psi)⁷ = 0.0065 MMBtu
- One gallon of Hydrogen (10,000 psi) = 0.0160 MMBtu
- One gallon of Jet Fuel (Kerosene-Type/Commercial) = 0.1350 MMBtu

¹ One gallon = 0.1337 cubic feet = 0.0038 cubic meters = 3.785 liters = 1/42 barrels

² The conversion factors for Biodiesel, No. 2 Diesel and B20 are located at http://www.biodiesel.org/pdf_files/fuelfactsheets/BTU_Content_Final_Oct2005.pdf

³ The conversion factors for Compressed Natural Gas (2,400psi) are available at <http://www.eere.energy.gov/afdc/pdfs/fueltable.pdf>

⁴ The conversion factors for Compressed Natural Gas (3,000 and 3,600 psi) are available at <http://www.eere.energy.gov/afdc/pdfs/fueltable.pdf>

⁵ A gasoline equivalent gallon is defined as the volume of an alternative fuel with energy content equal to that of a gallon of gasoline. For compressed natural gas, one gasoline equivalent gallon equals approximately 125 cu. ft.

⁶ The conversion factors for Ethanol, Gasoline, Jet Fuel and Residual Fuel Oil are available at http://www.eia.doe.gov/emeu/aer/pdf/pages/sec13_a.pdf

⁷ The conversion factors for Hydrogen, Liquefied Natural Gas, Liquefied Petroleum Gas and Methanol are available at http://www.eere.energy.gov/afdc/altfuel/fuel_properties.html.

- One gallon of Jet Fuel (Naphtha-Type/Military) = 0.1275 MMBtu
- One gallon of Liquid Hydrogen = 0.0305 MMBtu
- One gallon of Liquefied Natural Gas = 0.0735 MMBtu
- One gallon of Liquefied Petroleum Gas = 0.0840 MMBtu
- One gallon of Methanol (M100) = 0.0570 MMBtu
- One gallon of Methanol (M85) = 0.0660 MMBtu
- One gallon of Residual Fuel Oil = 0.1497 MMBtu