Glossary for the Energy End Use Database for the Calendar Years 2012 to 2016

Delivered Energy (TJ)

Delivered energy is the heat content of the energy type (petrol, coal, wood, etc.) delivered to the site (home, building, business) where it is used. It is measured in terajoules (TJ). One TJ is equivalent to 28,490 litres of petrol.

End Use Energy (TJ)

End use energy is the measure of the energy service provided by the delivered energy, for example heating and lighting for houses, passenger and freight transport, etc. It is measured in terajoules (TJ) and is equivalent to the delivered energy multiplied by the energy efficiency of the technology employed e.g. 'Lighting end use energy' equals the delivered energy (electricity) amount multiplied by the efficiency of a light, for example 100 GJ (electricity) x 0.30 (efficiency) = 30 GJ (effective lighting energy service).

Emission Quantities (CO_2, N_2O and CH_4)

Emission quantity is a measure of energy related greenhouse gas emissions (CO_2, N_2O and CH_4), in terms of tonnes of 'CO_2 equivalent' calculated by using annual emission factors published by the Ministry of Business, Innovation and Employment which are national weighted averages. The detailed web tables can be downloaded from: Energy Greenhouse Gas Emissions | Ministry of Business, Innovation and Employment.

'Carbon dioxide equivalent' is the amount of CO_2 that has the same global warming potential as a mixture of greenhouse gases when measured over a given time horizon (generally 100 years). The latest 2016 Energy End Use Database (EEUD) uses the following global warming potentials (GWPs):

- Carbon Dioxide (CO_2) = 1
- Methane (CH_4) = 25
- Nitrous Oxide (N_2O) = 298

Carbon dioxide equivalent is derived by multiplying the mass of CH_4 and N_2O emissions by their GWPs.

The following energy related emissions are included:

- Carbon Dioxide (in CO_2 tonnes and in CO_2 tonnes of CO_2 equivalent)
- Methane (in kilograms and in CO_2 tonnes of CO_2 equivalent)
- Nitrous Oxide (in kilograms and in CO_2 tonnes of CO_2 equivalent)
- Total Emissions (tonnes of CO_2 equivalent)

For liquid fuels and natural gas, the latest 2016 EEUD uses 2015 emission factors due to the data are not available at the time of updating the report.

End Use

The following end uses are included:

- Aluminium Manufacturing
- Electronics and Other Electrical Uses
- High Temperature Heat (>300^{O}C), Process Requirements
- Intermediate Heat (100-300^{O}C), Cooking
- Intermediate Heat (100-300^{O}C), Process Requirements
- Iron and Steel Manufacturing
- Lighting
- Low Temperature Heat (<100^{O}C), Clothes Drying
- Low Temperature Heat (<100^{O}C), Process Requirements
- Low Temperature Heat (<100^{O}C), Space Heating
- Low Temperature Heat (<100^{O}C), Water Heating
- Motive Power, Mobile
- Motive Power, Stationary
- Pumping
- Refrigeration
- Space Cooling
- Transport, Air
- Transport, Land
- Transport, Rail
- Transport, Sea

Fuel

Fuel includes coal, petrol (premium and regular), diesel (automotive gas oil, marine diesel and blended heating oil), fuel oil (light fuel oil, heavy fuel oil and other fuel oils), aviation fuel/kerosene, liquefied petroleum gas (LPG), gas, geothermal, solar, biogas, wood, black liquor and electricity.

Electronics and Other Electrical Uses

These include all types of electronics and other electrical uses e.g, television sets, home entertainments, computers, microwaves, vacuum cleaners and mixers, etc.

Motive Power, Mobile

Motive power, mobile is any source of energy (petrol, diesel, etc.) used to produce motion. This includes off-road (excludes on-road transport) machinery used in the agriculture, mining industries e.g, trucks, tractors, etc.

Motive Power, Stationary

Motive power, stationary is any source of energy used (steam, electricity, etc.) to produce motion. They are non-transport fixed stationary engines or electric motors e.g, steam engines, fans or hair-dryers.

Process Requirements

Heat energy requirements for agriculture, industrial and commercial processing operations e.g, the heat requirements of processes in the iron and steel, cement, kilning, chemical, food, paper, textile industries where elevated temperatures are required.

Sector

The definition used for sectors is based on the Australian New Zealand Standard Industrial Classification (ANZSIC) 2006.

Technology

The following technologies are included:

- Aircraft
- Boiler Systems
- Burner (Direct Heat)
- Clothes Dryer
- Cooking Elements
- Cooking Ovens
- Direct Heat
- Electric Furnace
- Electric Motor
- Electronics
- Furnace/Kiln
- Heat Pump (for Cooling)
- Heat Pump (for Heating)
- Hot Water Cylinder
- Industrial Ovens
- Internal Combustion (Domestic Use)
- Internal Combustion Engine (Land Transport)
- Internal Combustion Engine (Sea Transport)
- Lights
- Locomotive (Rail)
- Open Fire
- Open Fire, with Wetback
- Pump Systems (for Fluids, etc.)
- Refrigeration Systems
- Resistance Heater
- Stationary Engine

Transport

The following transport modes are included: buses, cars, coastal shipping, domestic air, non-transport, passenger rail, rail freight and road freight.