

Glossary

Billion cubic feet per day (BCFD): A standard unit used to define volumetric rates of natural gas. One billion cubic feet per day of natural gas is enough to meet about 2 percent of the natural gas used in homes around the world. Six billion cubic feet per day of natural gas is equivalent to about 1 million oil-equivalent barrels per day.

British thermal unit (BTU): A BTU is a standard unit of energy that can be used to measure any type of energy source. The energy content of one gallon of gasoline is about 120,000 BTUs. “Quad” refers to a quadrillion (10^{15}) BTUs. In the 2018 *Outlook for Energy*, energy content in BTUs for each oil product (e.g., gasoline, diesel, LPG, etc.) is based on its specific energy density.

Conventional vehicle: A type of light-duty vehicle with an internal combustion engine, typically either a gasoline-fueled spark ignition engine or a diesel-fueled compression ignition engine. Conventional includes vehicles with advanced technologies such as turbocharging and “mild hybrid” features such as a stop-start engine.

Exajoule: A joule is a standard unit that can be used to measure any type of energy. 1 exajoule = 10^{18} joules, roughly equivalent to 1 quadrillion BTUs.

Generation efficiency: The ratio of useful energy output to energy input in the generation of electricity from primary energy sources. Generation efficiency typically varies by generation type and region, however wind, solar PV and hydro are assumed to be 100 percent efficient.

Hybrid vehicle: A “full” hybrid is a type of light-duty vehicle that has a battery (usually a nickel metal hydride) and an electric motor, as well as a conventional internal combustion engine. When brakes are applied, the energy of the moving vehicle is stored in the battery and can be used later, thus saving fuel.

Hydrogen fuel cell vehicle: A type of light-duty vehicle for which hydrogen is the fuel and is stored onboard. This hydrogen is passed through a fuel cell that then provides electricity to power the vehicle.

Light-duty vehicle (LDV): A classification of road vehicles that includes cars, light trucks and sport utility vehicles (SUVs). Motorcycles are not included in the light-duty vehicle fleet size or fuel-economy, but the fuel used in motorcycles is included in light-duty transportation demand.

Liquefied natural gas (LNG): Natural gas (predominantly methane) that has been super-chilled for conversion to liquid form for ease of transport.

Liquefied petroleum gas (LPG): A classification of hydrocarbon fuel including propane, butane and other similar hydrocarbons with low molecular weight.

Million oil-equivalent barrels per day (MBOE): A standardized unit of measure for different types of energy sources (natural gas, coal, etc.) based on energy content relative to a typical barrel of oil. One million oil-equivalent barrels per day is enough energy to fuel about 4 percent of the light-duty vehicles on the world’s roads today. Reporting for all energy types in MBOE is done on an oil-equivalent basis, with the exception of oil products, which are reported in physical barrels.

Natural gas liquid (NGL): A liquid fuel produced chiefly in association with natural gas. NGLs are components of natural gas that are separated from the gaseous state into liquid form during natural gas processing. Ethane, propane, butane, isobutane and pentane are all NGLs.

Organisation for Economic Co-operation and Development (OECD): A forum for about 35 nations from across the world that work with each other, as well as with many more partner nations, to promote policies that will improve the economic and social well-being of people around the world.

Plug-in hybrid electric vehicle (PHEV): A type of light-duty vehicle that typically uses an electric motor. Unlike other electric vehicles, a PHEV also has a conventional internal combustion engine that can charge its battery using petroleum fuels if needed, and in some cases power the vehicle.

PPP: Purchasing power parity.

Primary energy: Includes energy in the form of oil, natural gas, coal, nuclear, hydro, geothermal, wind, solar and bioenergy sources (biofuels, municipal solid waste, traditional biomass). It does not include electricity or market heat, which are secondary energy types reflecting conversion/production from primary energy sources.

Secondary energy: Energy types, including electricity and market heat, that are derived from primary energy sources. For example, electricity is a secondary energy type generated using natural gas, wind or other primary energy sources.

TCF: Trillion cubic feet

Watt: A unit of electrical power, equal to one joule per second. A 1-gigawatt power plant can meet the electricity demand of more than 500,000 homes in the United States. Kilowatt (kW) = 1,000 watts; gigawatt (GW) = 1,000,000,000 watts; terawatt (TW) = 10^{12} watts.

Watt-hour: A unit of electrical energy. 300 terawatt hours is equivalent to about 1 quadrillion BTUs (quad). Kilowatt-hour (kWh) = 1,000 watt-hours; gigawatt-hour (GWh) = 1,000,000,000 watt-hours; terawatt-hour (TWh) = 10^{12} watt-hours.