[Fossil fuels](http://www.alternativeenergysecret.com/fossil-fuels.html) are composed of coal, oil and natural gas, all of which are instrumental in providing people with much of their energy and electricity needs. Fossil fuels were formed millions of years ago from the decaying plants and animals buried beneath the earth’s surface, the reason why they’re called fossil. They can be traced to the Carboniferous Period which was part of the Paleozoic Era between 280 and 345 million years ago. They were formed as a result of the high heat and pressure from the earth’s core that turned decomposing organic compounds into peat (spongy-textured substance) initially and then into coal (carbon-rich rock) and petroleum (liquid) eventually.

Man’s fuel needs, since the olden times, have been met through the use of fossil fuels. They are responsible for much of the world’s electric power and total energy demands. Since 1900, the world’s consumption of fossil fuels has nearly doubled every 20 years. Fossil fuels are foreseen to be in short supply in the future as man’s fuel needs continue to grow at a fast rate.

**Coal**

Coal is a black or brownish-black rock made up of carbon, hydrogen, oxygen, nitrogen and some amounts of sulphur. Coal comes in three types – anthracite, bituminous and lignite. Of the three, anthracite is the hardest, contains the most carbon and therefore has the highest heating temperature while lignite is the softest with low carbon content but oxygen and hydrogen content. The very first known coal called peat still exists today and is also used as a [source of energy](http://www.alternativeenergysecret.com/). The first use of coal was noted in China. Around 3,000 years ago, it was found that coal from northeastern China’s Fu-shun mine was used to smelt copper. Coal is found around the world and can be extracted via surface or underground mining. The coal collected is then transported using trains, boats or pipelines.

**Oil**

Oil is also referred to as crude oil or petroleum. This is a liquid fossil fuel that exists in underground reservoirs. Upon extraction, it appears as a black oily liquid called crude oil and is then refined to produce natural gases, kerosene, diesel and aviation fuel, among other derivatives. Compared to coal, this is easier to extract from the ground through the use of pipes thereby making it less costly to transport from one place to another.

Diesel fuel is a widely used oil derivative thicker and less volatile than gasoline. Its main uses are in transportation and home heating systems. Engines using diesel fuel are more energy efficient compared to those that use gasoline. This makes diesel ideal for heavy-duty vehicles such as buses and trucks.

The early usage of oil dates back more than 5,000 to 6,000 years ago. Crude oil and asphalt were used by the Sumerians, Assyrians and Babylonians while the Egyptians used liquid oil to cure wounds and to provide light through lamps.

A big part of the world’s petroleum supply comes from the oil-rich Persian Gulf. Apart from its use as a fuel, petroleum is also used in the manufacture of household products such as petroleum jelly, plastics and tires.

**Natural gas**

Natural gas is a light fuel that contains a mix of hydrocarbons mostly methane and in part ethane, propane, nitrogen, water vapor and carbon dioxide. Its main use is as fuel in the form of gas notably in transportation, industries as well as in the commercial and residential sectors. It can also be used in cooking, heating homes and in producing electricity. Natural gas has other uses apart from being burned in power plants to generate electricity. Many people also use it in their home heating systems to provide warm air during the cold winter season. Natural gas comes in either the compressed natural gas (CNG) or liquefied natural gas (LNG).

This gas is extracted from reservoirs or gas streams and then refined in order to separate it from other petroleum products. As methane, it can be sourced from landfills or water treatment facilities. Natural gas produces less emission and can be mixed with biofuels to create cleaner fuel for transportation. It is readily available to consumers for use in cooking and home heating.