

 **Resources of energy/ Some terms****1. Oil and natural gas:**

Oil and gas are known as fossil fuels; they are formed from prehistoric organisms decomposed underground over several to tens of millions of years, and are now available for use as energy resources. Fossil fuels in the liquid state is called oil, while those in the gaseous state is called natural gas.

Both oil and natural gas are made up primarily of hydrocarbon, which is a chemical compound consisting entirely of carbon (C) and hydrogen (H). They can be classified further into a variety of types depending on the structure of molecules and how they are bound.

- **Oil:** generally refers to a liquid composed mainly of hydrocarbons and containing some sulfur (S), nitrogen (N), and oxygen (O). Crude oil is a liquid extracted from oil fields underground from which gas and water are removed.
- **Natural gas:** is a flammable gas composed mainly of methane (CH<sub>4</sub>), which is colorless, odorless, and lighter than air. Natural gas is considered as the energy source with a lower environmental impact than other fossil fuels given its less emissions of carbon dioxide (CO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), and sulfur oxide (SO<sub>x</sub>) when burned.

**2. Oil industry:**

Oil and natural gas are major industries in the energy market and play an influential role in the global economy as the world's primary fuel sources. The processes and systems involved in producing and distributing oil and gas are highly complex, capital-intensive, and require state-of-the-art technology. Historically, natural gas has been linked to oil, mainly because of the production process or upstream side of the business. For much of the history of the industry, natural gas was viewed as a nuisance and even today is flared in large quantities in some parts of the world, including the United States. Natural gas has taken on a more prominent role in the world's energy supply as a consequence of shale gas development in the United States, and its lower greenhouse gas emissions when combusted when compared to oil and coal.

The petroleum industry, also known as the oil industry, includes the global processes of exploration, extraction, refining, transportation (often by oil tankers and pipelines), and marketing of petroleum products. The largest volume products of the industry are fuel oil and gasoline. Petroleum is also the raw material for many chemical products, including pharmaceuticals, fertilizers, pesticides, and plastics. The industry is often divided into three segments:

- Upstream, the business of oil and gas exploration and production;
- Midstream, transportation and storage; and
- Downstream, which includes refining and marketing.

**3. Other terms:**

Oil, gas, coal, nuclear energy, solar energy, wind energy, biofuels, exploration, refining...etc.