

# Glossary

The glossary of oil and gas terms is available on Eni's web page at the address [eni.com](http://eni.com). Below is a selection of the most frequently used terms.

## Financial terms

- **Dividend Yield** Measures the return on a share based on dividends for the year. Calculated as the ratio of dividends per share of the year and the average reference price of shares in the last month of the year. Generally, companies tend to keep a constant dividend yield, as shareholders compare this indicator with the yield of other shares or other financial instruments (e.g. bonds).
- **Leverage** Is a measure of a company's debt, calculated as the ratio between net financial debt and shareholders' equity, including minority interests.
- **ROACE** Return On Average Capital Employed Is the return on average capital invested, calculated as the ratio between net income before minority interests, plus net financial charges on net financial debt, less the related tax effect and net average capital employed.
- **Coverage** Financial discipline ratio, calculated as the ratio between operating profit and net finance charges.
- **Current ratio** Measures the capability of the company to repay short-term debt, calculated as the ratio between current assets and current liabilities.
- **Debt coverage** Rating companies use the debt coverage ratio to evaluate debt sustainability. It is calculated as the ratio between net cash provided by operating activities and net borrowings, less cash and cash-equivalents, Securities held for non-operating purposes and financing receivables for non operating purposes.
- **Profit per boe** Measures the return per oil and natural gas barrel produced. It is calculated as the ratio between Results of operations from E&P activities (as defined by FASB Extractive Activities - Oil & Gas Topic 932) and production sold.
- **Opex per boe** Measures efficiency in the oil&gas development activities, calculated as the ratio between operating costs (as defined by FASB Extractive Activities - Oil & Gas Topic 932) and production sold.
- **Cash flow per boe** Represents cash flow per each boe of hydrocarbon produced, less non-monetary items. Calculated as the ratio between Results of operations from E&P activities, net of depreciation, depletion, amortization and

impairment and exploration expenses (as defined by FASB Extractive Activities - Oil & Gas Topic 932) and volumes of oil and gas produced.

- **Finding & Development cost per boe** Represents Finding & Development cost per boe of new proved or possible reserves. It is calculated as the overall amount of exploration and development expenditure, the consideration for the acquisition of possible and probable reserves as well as additions of proved reserves deriving from improved recovery, extensions, discoveries and revisions of previous estimates (as defined by FASB Extractive Activities - Oil & Gas Topic 932).

## Oil and natural gas activities

- **Average reserve life index** Ratio between the amount of reserves at the end of the year and total production for the year.
- **Barrel** Volume unit corresponding to 159 liters. A barrel of oil corresponds to about 0.137 metric tons.
- **Boe (Barrel of Oil Equivalent)** Is used as a standard unit measure for oil and natural gas. From July 1, 2012, Eni has updated the conversion rate of gas to 5,492 cubic feet of gas equals 1 barrel of oil (it was 5,550 cubic feet of gas per barrel in previous reporting periods).
- **Carbon Capture and Storage (CCS)** Technique of CO<sub>2</sub> capture and storage through an integrated process that involves: (i) capture of CO<sub>2</sub> associated with large combustion plants, power generation plants, industrial point sources, as well as natural gas fields; (ii) transport to the storage sites, generally via pipeline; and (iii) sequestration in geological sites on land or under the sea floor.
- **Concession contracts** Contracts currently applied mainly in Western Countries regulating relationships between States and oil companies with regards to hydrocarbon exploration and production. The company holding the mining concession has an exclusive on mining activities and for this reason it acquires a right on hydrocarbons extracted, against the payment of royalties to the State on production and taxes on oil revenues.
- **Condensates** These are light hydrocarbons produced along with gas, that condense to a liquid state at normal temperature and pressure for surface production facilities.
- **Contingent resources** Amounts of oil and gas estimated at a given date that are potentially recoverable by means of development projects that are not considered commercially recoverable due to one or more contingency.

- **Conversion** Refinery process allowing the transformation of heavy fractions into lighter fractions. Conversion processes are cracking, visbreaking, coking, the gasification of refinery residues, etc. The ratio of overall treatment capacity of these plants and that of primary crude fractioning plants is the conversion rate of a refinery. Flexible refineries have higher rates and higher profitability.
- **Deep waters** Waters deeper than 200 meters.
- **Development** Drilling and other post-exploration activities aimed at the production of oil and gas.
- **Elastomers** (or Rubber) Polymers, either natural or synthetic, which, unlike plastic, when stress is applied, return, to a certain degree, to their original shape, once the stress ceases to be applied. The main synthetic elastomers are polybutadiene (BR), styrene-butadiene rubber (SBR), ethylenepropylene rubber (EPR), thermoplastic rubber (TPR) and nitrilic rubber (NBR).
- **Emissions of NMVOC (Non Methane Volatile Organic Compounds)** Total direct emissions of hydrocarbons, hydrocarbons substitutes (e.g. mercaptans) and oxygenated hydrocarbons (e.g. MTBE) that evaporate at normal temperature. They include LPG and exclude methane. Main sources are fugitive emissions from storage tanks and pipelines in industrial plants and deposits, distribution networks, flaring (often incomplete), venting, etc.
- **Emissions of NO<sub>x</sub> (Nitrogen Oxides)** Total direct emissions of nitrogen oxides deriving from combustion processes in air. They include NO<sub>x</sub> emissions from flaring activities, sulphur recovery processes, FCC regeneration, etc. They include NO and NO<sub>2</sub> emissions and exclude N<sub>2</sub>O emissions.
- **Emissions of SO<sub>x</sub> (Sulfur Oxides)** Total direct emissions of sulfur oxides including SO<sub>2</sub> and SO<sub>3</sub> emissions. Main sources are combustion plants, diesel engines (including maritime engines), gas flaring (if the gas contains H<sub>2</sub>S), sulphur recovery processes, FCC regeneration, etc.
- **Enhanced recovery** Techniques used to increase or stretch over time the production of wells.
- **EPC (Engineering, Procurement, Construction)** A contract typical of onshore construction of large plants in which the contractor supplies engineering, procurement and construction of the plant. The contract is defined "turnkey" when the plant is supplied for start-up.
- **EPCI (Engineering, Procurement, Commissioning, Installation)** A contract typical of offshore construction of complex projects (such as the installation of production platforms or FPSO systems) in which the global or main contractor, usually a company or a consortium of companies, supplies engineering, procurement, construction of plant and infrastructure, transport to the site and all preparatory activities for the start-up of plants.
- **Exploration** Oil and natural gas exploration that includes land surveys, geological and geophysical studies, seismic data gathering and analysis, and well drilling.
- **FPSO vessel** Floating, Production, Storage and Offloading system made-up of a large capacity oil tanker including a large hydrocarbon treatment plant. This system, moored at the bow in order to maintain a geostationary position, is in fact a temporary fixed platform linking the underwater wellheads to the treatment, storage and offloading systems onboard by means of risers from the seabed.
- **Green House Gases (GHG)** Gases in the atmosphere, transparent to solar radiation, can consistently trap infrared radiation emitted by the earth's surface, atmosphere and clouds. The six relevant greenhouse gases covered by the Kyoto Protocol are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>). GHGs absorb and emit radiation at specific wavelengths within the range of infrared radiation determining the so called greenhouse phenomenon and the related increase of earth's average temperature.
- **Infilling wells** Infilling wells are wells drilled in a producing area in order to improve the recovery of hydrocarbons from the field and to maintain and/or increase production levels.
- **LNG** Liquefied Natural Gas obtained through the cooling of natural gas to minus 160 °C at normal pressure. The gas is liquefied to allow transportation from the place of extraction to the sites at which it is transformed and consumed. One ton of LNG corresponds to 1,400 cubic meters of gas.
- **LPG** Liquefied Petroleum Gas, a mix of light petroleum fractions, gaseous at normal pressure and easily liquefied at room temperature through limited compression.
- **Mineral Potential (Potentially recoverable hydrocarbon volumes)** Estimated recoverable volumes which cannot be defined as reserves due to a number of reasons, such as the temporary lack of viable markets, a possible commercial recovery dependent on the development of new technologies, or for their location in accumulations yet to be developed or where evaluation of known accumulations is still at an early stage.
- **Mineral Storage** Volumes of natural gas required for allowing optimal operation of natural gas fields in Italy for technical and economic reasons.
- **Modulation Storage** Volumes of natural gas required for meeting hourly, daily and seasonal swings of demand.
- **Natural gas liquids** Liquid or liquefied hydrocarbons recovered from natural gas through separation equipment or natural gas treatment plants. Propane, normal-butane and isobutane, isopentane and pentane plus, that used to be defined natural gasoline, are natural gas liquids.
- **Network Code** A code containing norms and regulations for access to, management and operation of natural gas pipelines.
- **Offshore/onshore** The term offshore indicates a portion of open sea and, by induction, the activities carried out in such area, while onshore refers to land operations.
- **Oil spills** Discharge of oil or oil products from refining or oil waste occurring in the normal course of operations (when

- accidental) or deriving from actions intended to hinder operations of business units or from sabotage by organized groups (when due to sabotage or terrorism).
- **Olefins (or Alkenes)** Hydrocarbons that are particularly active chemically, used for this reason as raw materials in the synthesis of intermediate products and of polymers.
  - **Over/underlifting** Agreements stipulated between partners regulate the right of each to its share in the production of a set period of time. Amounts different from the agreed ones determine temporary over/underlifting situations.
  - **Possible reserves** Possible reserves are those additional reserves that are less certain to be recovered than probable reserves.
  - **Probable reserves** Probable reserves are those additional reserves that are less certain to be recovered than proved reserves but which, together with proved reserves, are as likely as not to be recovered.
  - **Production Sharing Agreement** Contract in use in non OECD Countries, regulating relationships between States and oil companies with regard to the exploration and production of hydrocarbons. The mining concession is assigned to the national oil company jointly with the foreign oil company who has exclusive right to perform exploration, development and production activities and can enter agreements with other local or international entities. In this type of contract the national oil company assigns to the international contractor the task of performing exploration and production with the contractor's equipment and financial resources. Exploration risks are borne by the contractor and production is divided into two portions: "Cost Oil" is used to recover costs borne by the contractor, "Profit Oil" is divided between contractor and national company according to variable schemes and represents the profit deriving from exploration and production. Further terms and conditions may vary from one Country to the other.
  - **Proved reserves** Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.
  - **Reserves** Quantities of oil and gas and related substances anticipated to be economically producible, as of a given date, by application of development projects to known accumulations. In addition, there must exist, or there must be a reasonable expectation that will exist, the legal right to produce or a revenue interest in the production, installed means of delivering oil and gas or related substances to market, and all permits and financing required to implement the project. Reserves can be: (i) developed reserves quantities of oil and gas anticipated to be through installed extraction equipment and infrastructure operational at the time of the reserves estimate; (ii) undeveloped reserves: oil and gas expected to be recovered from new wells, facilities and operating methods.
  - **Reserve replacement ratio** Measure of the reserves produced replaced by proved reserves. Indicates the company's ability to add new reserves through exploration and purchase of property. A rate higher than 100% indicates that more reserves were added than produced in the period. The ratio should be averaged on a three-year period in order to reduce the distortion deriving from the purchase of proved property, the revision of previous estimates, enhanced recovery, improvement in recovery rates and changes in the value of reserves – in PSAs – due to changes in international oil prices. Management also calculates this ratio by excluding the effect of the purchase of proved property in order to better assess the underlying performance of the Company's operations.
  - **Ship-or-pay** Clause included in natural gas transportation contracts according to which the customer for which the transportation is carried out is bound to pay for the transportation of the gas also in case the gas is not transported.
  - **Strategic Storage** Volumes of natural gas required for covering lack or reduction of supplies from extra-European sources or crises in the natural gas system.
  - **Swap** In the gas sector, the term is referred to a buy/sell contract between some counterparties and is generally aimed to the optimization of transport costs and respective commitments in purchasing and supplying.
  - **Take-or-pay** Clause included in natural gas purchase contracts according to which the purchaser is bound to pay the contractual price or a fraction of such price for a minimum quantity of the gas set in the contract also in case it is not collected by the customer. The customer has the option of collecting the gas paid and not delivered at a price equal to the residual fraction of the price set in the contract in subsequent contract years.
  - **Upstream/mid-downstream** The term upstream refers to all hydrocarbon exploration and production activities. The term mid-downstream includes all activities inherent to process crude oil and oil-based feedstocks for the production of fuels, lubricants and chemicals, as well as the supply, trading and transportation of energy commodities. It also includes the marketing business of refined and chemicals products.
  - **Wholesale sales** Domestic sales of refined products to wholesalers/distributors (mainly gasoil), public administrations and end consumers, such as industrial plants, power stations (fuel oil), airlines (jet fuel), transport companies, big buildings and households. They do not include distribution through the service station network, marine bunkering, sales to oil and petrochemical companies, importers and international organizations.
  - **Workover** Intervention on a well for performing significant maintenance and substitution of basic equipment for the collection and transport to the surface of liquids contained in a field.