

Energy SECTOR OVERVIEW

The Energy sector encompasses all of the companies involved in the processes of producing and supplying energy (mainly coal, oil and natural gas). This includes processes that range from exploration and extraction to transportation and distribution. The energy sector has four main subsectors as follows: Integrated Oil & Gas, Exploration and Production, Equipment and Services, and Pipelines

20 BIGGEST COMPANIES (By Market Capitalization) IN ENERGY SECTOR

(Bloomberg Industry Market Leaders)

1. ExxonMobil (NYSE: XOM)
2. PetroChina (NYSE: PTR)
3. Royal Dutch Shell (NYSE: RDS-A)
4. Chevron (NYSE: CVX)
5. Total SA (NYSE: TOT)
6. BP Plc (NYSE: BP)
7. Sinopec (NYSE: SHI)
8. BHP Billiton (NYSE:BHP)
9. Eni SPA (NYSE: E)
10. Occidental Petroleum Corp (NYSE:OXY)
11. CNOOC (NYSE: CEO)
12. ConocoPhillips (NYSE: COP)
13. Statoil ASA (NYSE: STO)
14. Gazprom OAO (MCX:GAZP)
15. Rosneft OAO (MCX: ROSN)

16. Suncor Energy Inc (NYSE: SU)
17. EOG Resources Inc (NYSE: EOG)
18. Lukoil OAO (MCX: LKOH)
19. Canadian Natural Resources Ltd (NYSE: CNQ)
20. Novatek OAO (MCX: NVTK)

Subsectors within Energy

The four main subsectors in the energy sector are Integrated Oil & Gas, Exploration and Production, Equipment and Services, and Pipelines.

INTEGRATED OIL & GAS

Integrated Oil & Gas companies are involved in many different areas of the production and distribution process. They explore, extract, transport, refine and then sell to various users. Examples of integrated oil & gas companies are Exxon Mobil, Chevron, and British Petroleum.

EXPLORATION AND PRODUCTION

Exploration & Production companies are involved solely in this process, and are responsible for finding and extracting the world's resources of oil & gas natural reserves. Examples of these firms include Continental Resources, Ultra Petroleum, and Apache.

EQUIPMENT AND SERVICES

This subsector is involved in a specialized 'niche' of the energy sector. They are involved in offshore drilling, onshore drilling, manufacturing equipment and repairs and other auxiliary services such as consulting, transportation and geological analysis. Examples include Drill-Quip and Halliburton.

PIPELINES

This subsector acts as the transportation of the energy sector, and are made up of networks/ 'pipelines' of transportation to refineries within the sector. Examples include Magellan Midstream Partners.

REFINING & MARKETING

The Oil & Gas Refining & Marketing subsector consists of companies engaged in the operation of oil and gas refineries for the production of heating, lubricating and fuel oils, as well as gasoline, diesel, jet fuel, propane, kerosene and other liquefied petroleum gas (LPG) products. The industry also includes marketing operations, such as bulk gasoline and crude oil terminals, and truck and automobile service stations with or without convenience stores.

PORTER'S 5 FORCES ANALYSIS OF ENERGY SECTOR

Rivalry among Existing Competitors (HIGH)

Fairly large number of competitors in the Energy Sector

Oversupply of Oil gives more power to purchasers and stimulates price war competition

Threat of New Entrants (LOW)

The Energy Sector has extremely high investment costs for most subsectors because of required infrastructure.

Ownership of Resources limits possible market share in exploration and production

Government Regulations often restrict/ favor certain suppliers

Economies of scale take several years to be realized because of already saturated market

Low potential new entrants

Threat of Substitutes (MEDIUM/LOW)

Alternative energy sources include SOLAR, WIND, NUCLEAR, however are not as efficient and would include costly switching costs.

Threat of electric/ hybrid vehicles on the rise as manufacturers increase energy alternative cars.

Bargaining Power of Buyers (MEDIUM)

Market Demand is the PRIMARY FACTOR in setting prices, and market demand is at all time LOW, relative to supply.

No individual bargaining power as consumers are represented by refineries and distributors so costs may still be transferred.

Bargaining Power of Suppliers (HIGH)

Many firms are vertically integrated so bargaining power of suppliers is not a factor.

Because of large number of producers and low demand, in Exploration and production bargaining power of supplier is higher than

previous years.

BIGGEST TRENDS AFFECTING EXPLORATION AND PRODUCTION SECTOR

There has been increasing trends toward Technology Revolution in Oil & Gas.

Shale Oil Production

Digital Oilfields: Integrates technology into exploration to get more precise estimates. Estimates of 25% increase in NPV of oil &

Gas assets if implemented.

4D Seismic Technology: Predicting seismic patterns for deeper oil exploration of shale oil and shale gas formations.

Exploitation of shale basins using methods such as hydraulic fracturing ("fracking") and horizontal has caused U.S.

crude output to skyrocket to its highest level since 1989.

New Shale oil production methods partly responsible for oversupply of oil

Plummeting oil prices: Oil prices have decreased more than 60% since their last peak in spring 2014.

(Bloomberg Strategy & Research)

Oversupply of Oil and instability of OPEC to agree on strategy to control production

EU embargo on Iranian oil, as well as US sanctions lifted in January 2016 which added more oil to glut.

NEWS/STORYLINES IN OIL& GAS INDUSTRY

Record low oil prices forces closing down of many oil refineries

China's slowed growth affecting oil demand

MEGERS & ACQUISITIONS

Still developing economy China has had growth slow down, and as a result, industrial production, and their DEMAND FOR OIL has DECREASED.

Positive correlation between China's economic development and oil demand.

Royal Dutch Shell in the process of purchasing British Gas for \$70B which will make shell the LARGEST Liquefied Natural trader.

EARNINGS TRENDS WITHIN SECTOR FOR PAST 5 YEARS

Using the S&P 500 Energy Index as a model for the earnings performance of the energy sector, one can see the gradual decrease in earnings in the last 3 years. The sector's performance has decreased due to oil prices and shows a -14.95% decrease to date, compared to the S&P 500 average. Generally speaking, earnings have (for the past year and a half) and continue to be negative for companies directly impacted by low oil prices.