Make in India-Oil and Gas Sector

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Launch of Make in India:

The Prime Minister Narendra Modi, launched 'Make in India' on 25th September, 2014, a major national initiative which focuses on making India a global manufacturing hub. Key thrust of the programme would be on cutting down in delays in manufacturing projects clearance, develop adequate infrastructure and make it easier for companies to do business in India. The 25 key sectors identified under the programme include automobiles, auto components, bio-technology, chemicals, defence manufacturing, electronic systems, food processing, leather, mining, oil & gas, ports, railways, ports and textile. The national progamme aims at time-bound project clearances through a single online portal which will be further supported by the eight-member team dedicated to answering investor queries within 48 hours and addressing key issues including labor laws, skill development and infrastructure. The objective of the mega programme is to ensure that manufacturing sector which contributes around 15% of the country's Gross Domestic Product is increased to 25% by next few years. The 'Make in India" initiative is based on four pillars, which have been identified to give boost to entrepreneurship in India, in not only the manufacturing but also other sectors. The core objective strategy of the program lies in the following four components.

(i) New Processes: 'Make in India' recognizes 'ease of doing business' as the single most important factor to promote entrepreneurship. A number of initiatives have already been under taken to ease business environment.

(ii) New Infrastructure: Government intends to develop industrial corridors and Smart cities, create world class infrastructure with state of-the-art technology and high-speed communication. Innovation and research activities are supported through fast paced registration system improved infrastructure for IPR registration. The requirement of skills for industry are to be identified and accordingly development of workforce to be taken up.

(iii) New Sectors: FDI has been opened up in Defence Production, Insurance, Medical Devices, Construction and Railway infrastructure in a big way. Similarly FDI has been allowed in Insurance and Medical Devices.

(iv) New Mindset: In order to partner with industrial economic development of the Country Government shall act as a facilitator and not a regulator.

In order to deepen economic engagement with major economies across the world, CEOs' Forums/ Joint Business Councils are being set up with the objective of facilitating mutually beneficial partnership with other countries at the business level as well as inputs in policy making. So far, CEO's Forums/Business Leaders' Forums have been set up with USA, Japan, France, UK, Malaysia, South Africa, Brazil, Canada, Russia, Australia, China, Indonesia and Sri Lanka. An India-African Business Council (IABC) and BRICS Business Council have been setup for activating business to business contacts.

Invest India:

An Investor Facilitation Cell has been created in 'Invest India'. In order to assist and handhold foreign investors, Invest India, a Joint Venture Company (Not for Profit Company) between Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce and Industry, Government of India, Federation of Indian Chambers of Commerce and Industry (FICCI) and Various State Governments has been set up. Invest India is responsible for promoting and facilitating investments to India. The shareholding is 51% of FICCI and 49% of DIPP. Subsequently DIPP will dilute its equity to include all State Governments. Already seven states have taken up shares in Invest India.

Invest India shall act as a first reference point for investors. Invest India shall also be a facilitator and partner offering handholding services to the investors to help them speedily fructify their investment plans. Investor Facilitation Cell has been created at Invest India to assist, guide, support, handhold and facilitate investors during various stages of their project. In order to enable businesses and investors to save time and costs and to improve the overall business environment in the country, an online single window was conceptualized in the form of e-Biz Mission Mode Project under the National e-Governance Plan. The Union Minister for Commerce & Industry launched the eBiz portal at the CII Partnership Summit in Agra on 28.1.2013. The process of applying for an Industrial License (IL) and an Industrial Entrepreneur Memorandum (IEM) has been

taken online. The site, eBiz available 24x7 making it easier to file applications and making online payments of service tax.

Entry and exit regulations have been eased out, Exim regulations made infinitely easier, six PSUs brought out of sickness. Some of the Outcomes of the digitization of industry setting process can be seen from below

The initial validity period of an Industrial License has been increased from 2 to 3 years, giving licensees enough time to procure land and obtain the necessary clearances.

MHA has also stipulated that it will grant security clearances on industrial license applications within 12 weeks. Employees Provident Fund Organization (EPFO) and Employees State Insurance Corporation (ESIC) processes have been automated and ESIC registration number is now being provided on real time basis.

A National Workshop with the Industry, States and all Sectorial Central Ministries to draw up a Plan of Action in the short and medium term for creating an enabling framework for stimulating investments in manufacturing was held on 29th December, 2014.

Certain important steps taken to boost manufacturing include:
Ordinance has been issued to make land acquisition simpler for important projects.

A number of items have been taken off the licensing requirements from the Defence products list. Items of dual use have also been taken off the licensing requirement.

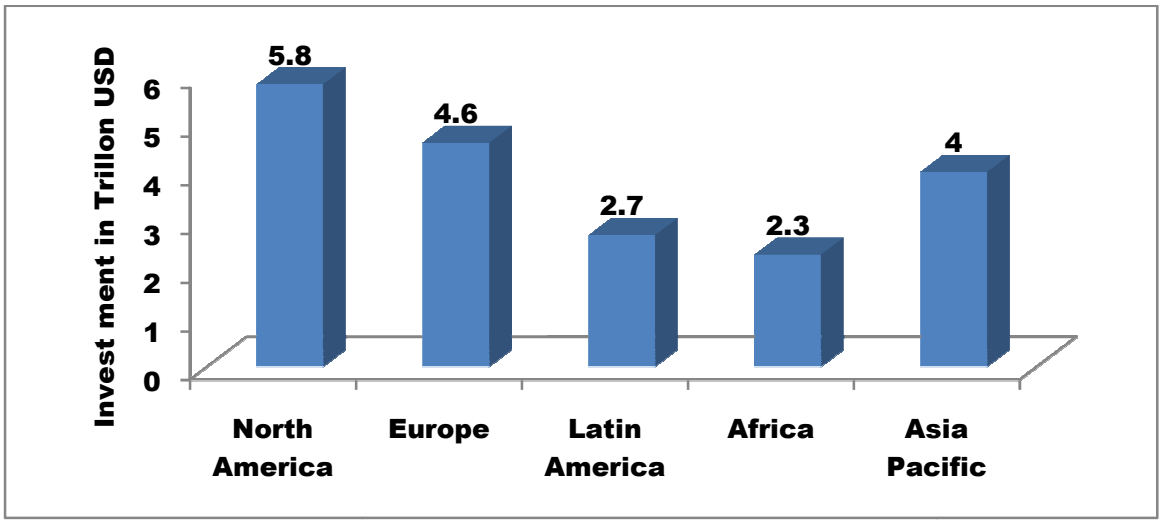
The Ministry of Labour and Employment has developed a unified Web Portal “Shram Suvidha”, which shall facilitate ease of filing various law returns with a single document. And this portal can be used for allotment of unique labor identification number to Units.

Indian- Oil and gas Industry:

The Global oil and gas industry is witnessing an unprecedented wave of capital spending, driven by the need to build capacity to meet growing energy demand from emerging markets and to replace depleting supply sources. This capital expenditure has, to date, been underpinned by consistently higher oil prices, globally and gas prices outside North America. This trend is expected to continue. In its World Energy Investment Outlook 2014, the International Energy Agency (IEA) estimates a cumulative investment of US$22.4trillion in the global oil and gas sector between 2014 and 2035, equivalent to an

average annual spend of more than US$1trillon. As shown below in Graph1, spending will be dominated by North America (particularly the US), Europe and Asia-Pacific

Fig.1 Regional cumulative oil and gas investment between 2014 and 2035 (US$trillion)



Source: World Energy Investment Outlook, IEA, June 2014.

India is one of the world's largest consumers of oil and gas, the country's per capita oil and gas consumption is low as compared to that in other economies. This indicates the low availability and affordability of energy, particularly of natural gas. In 2013, India's per capita consumption of oil and gas was 176.9 Kg of oil equivalent (kgoe), while the global average was 1,011.4 kgoe. This indicates significant growth potential in the sector, given the rising economic prosperity and rising income levels.

India's oil and natural gas sector predominantly relies on its national oil companies (NOCs). Oil and Natural Gas Corporation (ONGC) holds the largest share of crude oil and natural gas production. Oil India Limited (OIL), Cairn India and Reliance Industries Limited (RIL) are other major oil- and gas-producing companies in the country. India's dependence on oil imports has increased over the past few years, along with the spike in consumption. Meanwhile, domestic production remains stagnant, hampered by limited exploration and declining production from existing maturing fields. India currently imports around 76% of its oil consumption.

Oil refinery capacity in India:

India has surplus refining capacity and is a net exporter of petroleum products. Over the past few years, many companies — private and NOCs — have expanded their refining capacities, driven by the rising domestic consumption of petroleum products and incentives granted by the Government of India (GoI).Refining companies are likely to

continue to enhance their crude processing capacity by upgrading existing facilities and building greenfield refineries. During the Twelfth plan, new refineries are likely to be commissioned by Indian Oil Corporation Limited (Paradeep, 15 MMTPA). By the end of FY17, the country's cumulative refining capacity is projected to increase to 310.9 MMTPA. Out of this, NOCs are likely to account for 197.9 MMTPA11. Access to modern technology, and research and development initiatives may become key focus areas, given the rising global production of heavy unconventional oils, coupled with the shift of consumers towards modern fuels.

Natural Gas:

The country's natural gas market is characterized by a supply deficit, primarily due to low domestic production and inadequate transmission and distribution infrastructure On the other hand; demand for natural gas in India has increased significantly, primarily from the power and fertilizers sectors, city gas distribution (CGD) sector and industrial sectors, such as refining and petrochemicals. Rising concerns on carbon emission have added to demand for natural gas. Several assets in the oil and gas segment are over 30 years old. Hence, oil companies are undertaking large projects for the redevelopment and revamp of these assets.

Initiations towards Oil and gas industry development:

The GoI has taken many initiatives for attracting investment to boost domestic output and strengthen the relative infrastructure. These efforts are likely to create several opportunities for oilfield services, EPC companies and capital goods companies.

The Government has allowed 100% FDI in upstream and private sector refining projects. In addition, FDI limit for public sector refining projects has been raised to 49%. Additionally, the Indian Government has enacted various policies such as New Exploration Licensing Policy (NELP), coal bed methane (CBM), shale gas and Petroleum, Chemicals and Petrochemical Investment Regions (PCPIR) policy to encourage investments across the industry's value chain.

Responding emphatically to the Prime Minister Narendra Modi's 'Make in India' initiative, India's foremost energy major Oil and Natural Gas Corporation Limited (ONGC) and Pan-IIT entered into a Memorandum of Collaboration (MoC) on January 19, 2015 at New Delhi to work towards a collective R&D Programme for developing indigenous

technologies to enhance exploration and exploitation of hydrocarbons and alternate sources of energy. To begin with, seven thematic research areas in the domain of geoscience, reservoir characterization, enhanced production of oil and gas, exploiting unconventional sources of hydrocarbons, software development, engineering solutions and alternate energy resources have been identified.

Oil and Gas Industry manufacturing segment:

In order to roll out the "Make in India" campaign in the Oil and Gas Industry i.e. domestic manufacturing for equipment used in Petroleum and Natural Gas Sector, Ministry of Petroleum and Natural Gas has decided to formulate a time bound action plan to successfully implement it in consultation with different stake holders. This will also create a sustained demand for oil field services like drilling rigs, offshore support vessels, tubular goods, and seismic services and equipment for constructing process platforms, pipelines and collecting stations, as well as other surface facilities for transportation of oil and gas from wells to delivery points.

Oil and gas equipment players manufacture and sell equipment used across the oil and gas value chain in exploration, production and distribution. The industry consists of large, midsize and small companies offering services such as construction and engineering, as well as manufacturing equipment. Oil and gas equipment can be primarily divided into three segments, namely, upstream, midstream and downstream, based on their presence and use across the value chain. The scope of the upstream segment generally ends at the last choke valve on a wellhead, including in processes such as exploration, drilling and well completion. The midstream segment comprises activities such as wellhead processing and the transportation of oil. The downstream segment is conventionally considered to consist of oil refining, gas processing, distribution and marketing.

Foreign investment in the sector:

With FDI of up to 100% permitted via the automatic route (through RBI), foreign companies are looking to invest in the market by setting up manufacturing bases or by forming alliances with Indian players. Further demand aggregation and the increased adoption of policies promoting local manufacturing have attracted many global players such as Alstom, Alfa Lava, GE, Honeywell and Emerson to set up base in India. As a result, the country has seen strong FDI equity inflow in the capital goods industry. The

inflow of the FDI in Oil and gas sector in India from 2000-2015 is around 6569 Million USD which is 2.64% of the total FDI inflow during the period. And by this Make in India campaign the FDI inflow in the oil and gas sector is poised to grow at unprecedented rate in the coming years.

Oil and gas equipment manufacturing in India:

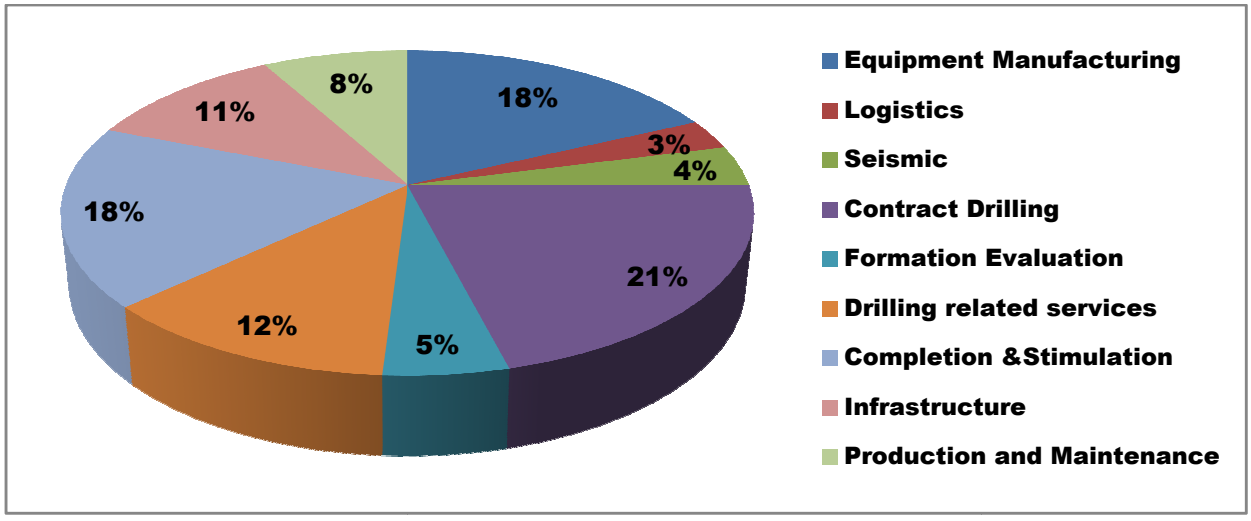
Some of the key equipment Manufacturers in India is shown below for upstream as well as mid &downstream sector.

Sector	Key Manufacturer
Up stream	BHEL, L&T, Thermax, JindalPipe, United Drilling, Deep Industries, Sarasae, inter drill, BOTIL, Praveen Industries, Akers solutions, Emerson, Weir
Mid &Down stream	BHEL, L&T, Godrej and Boyce, Alfa Laval, Thermax, Vijay tank and vessel, ISGEC Heavy engineering, Kevin enterprises, chemtrols, Alstomindia, Doosan

Global oil field equipment spending:

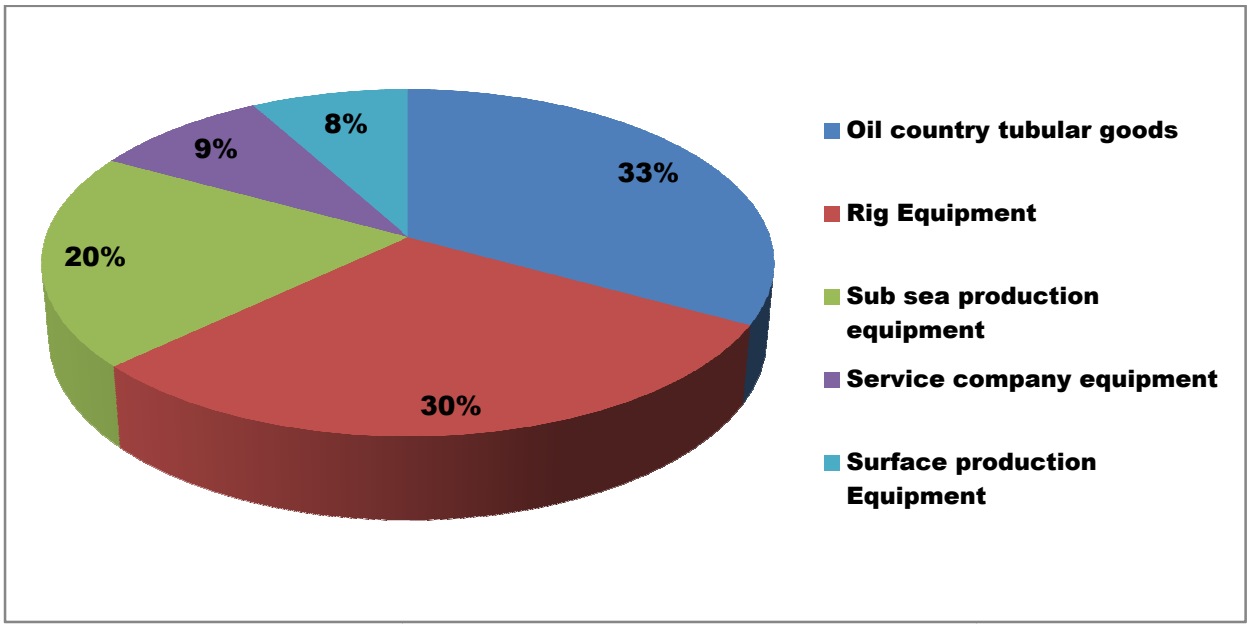
Globally, equipment manufacturing for the upstream segment accounts for 18% of oilfield services and equipment spend. Within equipment spend oil country tubular goods (OCTG) and rig equipment account for 63% share by value as shown in below graph.2&3

Graph 2 Global Oil Field Equipment Spending (2011)



Source: CII & EY

Graph 3 Global Oil Field Equipment Spending (2011)



Source: CII&EY

Oil and gas industry related equipment segments can be broadly divided in to

- ✓ Process plant equipment
- ✓ Boilers
- ✓ Valves
- ✓ Pipes.

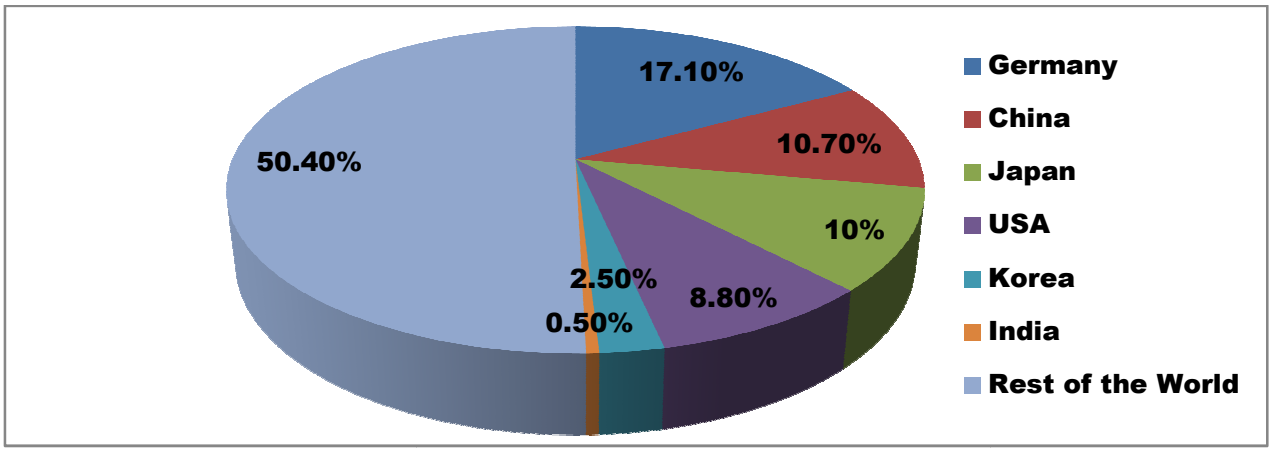
The oil and gas industry is the largest end-user market for the process plant equipment industry. Process plant equipment finds wide application in refineries and gas processing plants in critical processes such as phase separation, oil processing and storage, gas processing, and oil and gas metering and transport. On the other hand, pumps, valves and steel pipes form an integral part of both upstream and downstream equipment. These are used extensively for transporting crude oil from oilfields to refineries, as well as in marketing and distribution.

Process industry Overview in India:

Major process plant equipment includes pressure vessels, storage tanks, columns, towers, crystallizer, heat exchangers, evaporators and furnace. These find application across a wide spectrum, including oil and gas, refinery, chemical, petrochemical, energy, fertilizer, paper and pulp, sugar, cement and dairy. The process plant equipment market in India was valued at INR1, 63, 450 million in 2011. Production amounted to INR1, 98, 610 million in 2012. It is expected to touch INR3,50,000 million by 2017, growing at a

CAGR of ~12%.The process plant equipment market in India was valued at INR31,940 million in 2011, by exports. It is expected to be worth INR87,500 million by 2017. In recent years, India has enjoyed large demand for process plant equipment from foreign developing countries as a result of the increasing capabilities of domestic manufacturers. As far as domestic consumption is concerned, the process plant equipment industry is one of the most self-reliant sub-sectors within the capital goods sector, with domestic procurement accounting for ~91% of the demand. However, in terms of their share in exports at the global level, Indian manufacturers are yet to catch up with their peers from developed countries. Indian players account for very negligible share of 0.5% of total global exports as shown in below Graph4.

Graph 4 Share of Indian Manufacturers in global export with in process plant equipment (2010)



Source: CII&EY

Boiler industry overview in India:

The boiler market (includes boiler used in electrical and other industries) in India was valued at INR1,95, 000 million in 2012. It is expected to grow at a CAGR of 9.3% and 15.1% to be worth INR2,90,000 million and INR5,85,000 million by 2017 and 2022, respectively. Based on investment estimates and capacity addition targets, domestic demand for Boiler, Turbine & Generator (BTG) is anticipated between INR1,250,000 million and INR1,500,000 million by 2022.The boiler export and import market was valued at INR11,209 million and INR16,000 million as of 2012.

Valve industry overview in India:

The valve market in India was valued at INR1, 17, 129 million in 2012. It is expected to be worth INR1, 94,648 million by 2016, growing at a CAGR of 13.54%. The Indian

industrial valve market is fragmented, with the unorganized sector contributing ~40% of the market. Oil and gas accounts for ~47% of the valves market, with valves forming an integral part of the upstream equipment and downstream distribution network. Large-size complex choke valves are extensively used in the exploration and production of oil. Hence, domestic manufacturers need to improve their technological capabilities to be able to address demand for complex valves from the oil and gas sector.

Pipe industry overview in India:

Oil and gas is the largest end user of steel pipes and tubes, with pipeline being the major mode of transport for petroleum, oil and lubricant products. In 2011, ~46% of petroleum, oil and lubricant products were transported through pipelines. The percentage is expected to increase to ~53% in 2017.The increasing use of pipelines in oil and gas directly translates into higher demand for steel pipes. Crude oil, gas and product pipelines have grown at a CAGR of ~10.5%, 11.7% and ~4.7% over 2008–2012, respectively. Steel pipe commands the largest share in the oil and gas sector, primarily because of its high pressure resistance properties. Production for steel pipes and tubes is estimated to have grown at a CAGR of ~7.2% over FY 2009–13 to 7.52 million tonnes. Domestic consumption is estimated to have increased to 6.19 million tonnes for the corresponding period. Steel pipes and tube production is expected to grow by a CAGR of 5% over the next coming years.

Some Of the Highlights to make India as global Oil and Gas manufacturing industry investment destination are shown below.

Oil and gas reserves in India:

- 96 Trillion Cubic Feet of estimated shale gas reserves.
- 47 Trillion Cubic Feet of proven natural gas reserves.
- 800 MMT of proven oil reserves.
- 4th largest consumer of crude oil and petroleum products in the world.
- 2nd largest refiner in Asia.

Reasons to invest:

- Policies such as the New Exploration Licensing Policy and the Coal Bed Methane Policy have been put in place to encourage investments across the industry value

chain. Thirty-four blocks were put up for bidding in the ninth round of the N.E.L.P.

- Demand for primary energy in India is to increase threefold by 2035 to 1,516 Million Tonnes of Oil Equivalent from 563 Million Tonnes of Oil Equivalent in 2012.
- Several industries are increasing consumption of natural gas in operations. There is great scope to increase gas supply to CNG in transport and piped natural gas to houses, Small scale industries.
- Several domestic companies such as the Oil and Natural Gas Corporation, Reliance Industries Limited and Gujarat State Petroleum have reportedly found natural gas in deep waters.
- As part of pricing reforms for the natural gas sector in 2013, the government approved a new pricing scheme to further align domestic prices with international market prices and to raise investment for the sector.
- Despite being a net importer of crude oil, India has become a net exporter of petroleum products by investing in refineries designed for export, particularly in Gujarat.
- Several private companies have emerged as important players in the past decade. Cairn India, a subsidiary of British company Cairn Energy, controls more than 20% of India's crude oil production through its operation of major stakes in the Rajasthan and Gujarat regions and the Krishna-Godavari basin.
- Private companies such as Reliance Industries Limited and Essar Oil have become major refiners.
- The government is preparing to issue the 10th round of bidding for the National Exploration Licensing Policy.
- It is a transparent and level playing field for private investors and national oil companies – both enjoy the same fiscal and contract terms.
- 60% of the prognosticated reserves of 28,000 MMT are yet to be harnessed.

Statistical Data:

- The oil and gas industry ranks amongst India's six core industries.
- India was the fourth largest consumer of crude oil and petroleum products in the world in 2013, after the United States, China and Japan.
- Oil imports constitute over 80% of India's total domestic oil consumption as of May, 2014.
- Oil and gas contribute 39.2% to primary energy consumption.
- During 2013-14, natural gas constituted about 7.8% of the energy mix.

- India had 47 Trillion cubic feet of proven natural gas reserves at the beginning of 2014. Approximately 34% of total reserves are located onshore, while 66% are offshore.
- Investments worth USD 70 Billion are expected across the oil and gas value chain during 2012–17.
- At the end of 2013, India had 215.066 MMTPA of refining capacity, making it the second largest refiner in Asia after China. Private joint venture companies own about 41% of total capacity.
- India increasingly relies on imported LNG; the country was the fourth-largest LNG importer in 2013 and accounted for 5.5% of global imports.
- India's crude oil pipeline network spans just under 9,460 miles and has a total capacity of 129.4 MMTPA.

Growth Drivers:

- As part of International Energy Outlook 2013, EIA (Energy Information Administration, USA) projects in India and China will account for about half of global energy demand growth through 2040, with India's energy demand growing at 3% per year.
- India held nearly 800 MMT of proven oil reserves at the beginning of 2014, mostly in the western part of the country.
- About 44% of reserves are onshore resources, while 56% are offshore. The country's natural gas pipeline network amounted to over 15,340 kms in 2013 and a proposed expansion of 30,000 kms is envisaged by 2018-19.
- Gas Initial is in place for CDM (Clean Development Mechanism) established at 10 TCF with the possibility of an upside.
- The government has decided to set up strategic storage of 5.03 MMT of crude oil at 3 locations – Visakhapatnam, Mangalore and Padur.
- The government unveiled plans to add another 91 Million barrels to its crude oil capacity to protect India from supply disruptions by 2017.
- India projects an increase of the country's refining capacity to 307.366 MMTPA by 2017 based on its current Five Year Plan (2012-17) to meet rising domestic demands and export markets.
- The government is in the process of determining the structure of petroleum contracts between the government and companies. The current system includes a production-sharing mechanism, allowing producers to recover exploration costs during production before sharing profits with the government.

- In recent years, major discoveries in the Barmer basin in Rajasthan and the offshore Krishna-Godavari basin by smaller companies such as the Gujarat State Petroleum Corporation and Andhra Pradesh Gas Infrastructure Corporation hold some potential to diversify the country's production.

FDI policy:

- FDI upto 100% is permitted under automatic route in exploration activities of oil and natural gas fields, infrastructure related to the marketing of petroleum products and natural gas, marketing of natural gas and petroleum products, petroleum product pipelines, natural gas/pipelines, LNG re-gasification, market study and formulation and petroleum refining in the private sector.
- FDI in the above activity is subject to the existing policy and regulatory framework in the oil marketing sector and the policy of the government on private participation in exploration of oil and the discovered fields of national oil companies.

Sector Policy

- FDI upto 49% is permitted under automatic route in petroleum refining by Public Sector Undertakings (PSUs), without any disinvestment or dilution of domestic equity in the existing PSUs.
- The Integrated Energy Policy, 2006 outlines goals for dealing with challenges faced by India's energy sector.
- The Petroleum and Natural Gas Regulatory Board Act, 2006 regulates refining, processing, storage, transportation, distribution, marketing and the sale of petroleum, petroleum products and natural gas.
- The Auto Fuel Policy, 2003 provides a roadmap to comply with various vehicular emission norms and corresponding fuel quality upgrading requirements over a period of time.
- The National Biofuel Policy, 2009 promotes bio-fuel usage; the Government of India has provided a 12.36% concession on excise duty on bio-ethanol and exempted bio-diesel from excise duty.
- The National Exploration Licensing Policy, 1999 provides a contract framework for the exploration and production of hydrocarbons. Licenses for exploration are awarded through a competitive bidding system – nine rounds of bidding were completed as of 2011.

- 52 Blocks proposed to be offered under N.E.L.P.X . The offer is de-risked to the extent of all necessary statutory clearances having been pre-obtained.
- The Coal Bed Methane Policy, 1997 encourages exploration and production of coal bed methane as a new eco-friendly source of energy.
- The Petroleum Rules, 1976 contains provisions for regulations governing pollution, safety and other operating standards.
- The Policy on Shale Gas & Oil, 2013 allows companies to apply for shale gas and oil rights in their petroleum exploration licenses and petroleum mining leases.

Financial Support:

Key Provisions of the 2014-15 Union Budget

- Cut in excise duty of branded petrol from INR 7.50 per liter to INR 2.35 per liter.
- An additional 15,000 km of gas pipeline will be developed using appropriate PPP **(**Public private partnership) models.
- Reduction in fuel subsidies through appropriate measures.
- Section 25 of The Customs Act is being amended to provide that the customs duties on mineral oils like oil and gas extracted or produced in the continental shelf of India or the exclusive economic zone of India shall not be recovered for the period prior to 7th February, 2002.

Fiscal Incentives:

- All exploration and drilling costs are 100% tax-deductible. Such costs are aggregated until the year of commencement of commercial production.
- A special deduction is available for provisions made for site restoration expenses if the amount is deposited in a designated bank account. The deduction is the lower of the following amounts: the amount deposited in a separate bank account or site restoration account, or 20% of the profits of the business in the relevant financial year.

State Incentives:

- Apart from the above, each state in India offers additional incentives for industrial projects. Incentives are provided in areas such as subsidized land cost, the relaxation of stamp duty on sale/lease of land, power tariff incentives, concessional rates of interest on loans, investment subsidies and/or tax

incentives, backward areas subsidies, special incentive packages for mega projects.

Export Incentives:

- Under the Exports Promotion Capital Goods Scheme, the import of capital goods at a zero basic custom duty is allowed for export purposes. Capital goods for the pre/post production stage are also permitted. The exports are to be effected equivalent to six times the duty saved on capital goods. Exports are to be completed in 6 years.

Focus Market Scheme:

- The basic objective is to offset high freight cost and other externalities to select international markets. A benefit of 3% transferable duty-free credit entitlement for specified countries has been envisaged; special focus markets get 4% benefits.

Area-Based Incentives:

- Incentives for units in special economic zones (SEZs) and national investment and manufacturing zones (NIMZs) are specified in respective acts. Plans have been made for the setting up of projects in special areas such as the North-east, Jammu & Kashmir, Himachal Pradesh and Uttarakhand.

Investment Opportunities:

Shale:

- India has technically recoverable shale gas resources of nearly 96 Trillion cubic feet.

Under Ground Coal gasification:

- Coal gasification has been identified as one of the end uses under the government's captive mining policy.

Opportunities for E&P services and equipment companies:

- 48% of the country's sedimentary area is yet to be explored. The city gas and distribution sector offers opportunities for both incumbents and new companies. The Petroleum and Natural Gas Regulatory Board allows the following incentives

to authorized entities: the infrastructure exclusivity is available to the authorized entity for a period of 25 years. Exclusivity for the activity of marketing of natural gas is allowed to the authorized entity for a period of 5 years. For incumbents, the marketing exclusivity extends to a period of 3 years.

Opportunities for pipeline transportations:

- Compared to advanced economies like the US, where more than 60% of petroleum product movement happens by pipeline, in India, currently, only 35% of product movement happens over pipelines.

The Refining sector:

- India is already a refining hub with 21 refineries and expansions planned for tapping foreign investment in export-oriented infrastructure, including product pipelines and export terminals.

Opportunities for Foreign investments and technology partnerships in the upstream sector:

- Securing supplies is expected to remain on top of India's energy agenda for the foreseeable future. While exploration activity has taken place on land and in shallow basins across the country, it is believed by many that deep water and ultra-deep water oil and gas resources hold the key to substantially increasing domestic production. This creates a plethora of opportunities for strategic investors having relevant technical expertise and financial muscle

Conclusion:

Establishing a level-playing field for domestic and Foreign Oil and gas equipment manufacturers to set up plants in India considering the future demand requirements in the sector and to encourage exports in order achieve growth in the sector. Furthermore, to facilitate technology transfer and promote domestic dedicated R&D, new product development and testing facilities could help achieve cost savings and other financial benefits to make "Make in India" campaign a success full national policy.

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