



OIL AND GAS

SUMMARY

The Oil and Gas industry in India is set for a sea change with recent developmental ambitions of the Government of India – 175 GW of installed capacity of renewable energy by 2022, the aim to achieve 100 smart cities mission, 10% reduction of oil and gas import dependence by 2022 and provision of clean cooking fuels. ¹

India is currently using only 6% of the world's primary energy and the per capita consumption of energy is still one-third of the global average.²⁰

Natural gas production for the month of October 2020 was 2418.88MMSCM.

In October 2020, Domestic crude oil production was 2567.70 TMT.

Production of Petroleum Products during November 2020 was 21425.49 TMT which is 1.79% higher than the target for the month.

As on 31st March 2019: ²

Estimated reserves of crude oil in India stood at 618.95 mn tonnes

Estimated reserves of natural gas in India stood at 1380.63 bn cubic meters

Estimated reserves of coal in India stood at 326.49 bn tonnes

The estimated conventional hydrocarbon resources in 26 sedimentary basins stood at 41.87 bn tonnes (oil and oil equivalent of gas), an enormous increase of about 49% in comparison to the earlier estimate of 28.08 bn tonnes. ³

India is the second-largest refiner in Asia after China. It is emerging as a refinery hub with refining capacity exceeding demand. ³ The country's refinery capacity has increased to 247.57 MTPA. ⁴

The demand for energy is expected to grow at Compound annual growth rate (CAGR) of 4.2% from 2017-2040.

REASONS TO INVEST

The growing economy and population growth are the main drivers for oil & gas demand, increasing every year.

India is one of the fastest-growing energy consumers. It is the third-largest consumer in the world after China and USA. ⁵

In 2018, the Government of India launched the Bid Round-I under Open Acreage Licensing Policy (OALP) for bidding through International Competitive Bidding (ICB) process. About 55 Blocks having an acreage area of 59,282 sq km were awarded in Bid Round-I. ⁵

National Data Repository (NDR) was setup on 28 June 2017, at Directorate General of Hydrocarbons (DGH), to make the entire Exploration and Production (E&P) data available. This is mainly for commercial exploration, research and development and academic purposes. ⁵

National Gas Grid: India targets to have a gas-based economy and increase the share of natural gas in the primary energy mix of the country from 6.2% to 15%. The Government has approved a capital grant of INR 5,176 crore under Pradhan Mantri Urja Ganga to provide clean energy in the eastern part of the country. ⁵

Pradhan Mantri Ujjwala Yojana (PMUY): PMUY launched in FY 2016-17 to provide LPG connections to 50 mn women from the Below Poverty Line (BPL) families.

Under PMUY scheme, 5.90 crore LPG connections have been released as on 31st December 2018 bringing cleaner energy and better health across the nation. ⁵

OMCs have delivered 1413.38 lakh refills to PMUY beneficiaries under this Scheme as on 30.11.2020 and more than 7.5 Cr PMUY beneficiaries have availed free cylinders under the scheme.²³

Supportive Government Regime — ease of doing business moved to industry-specific policy HELP (Hydrocarbon Exploration & Licensing Policy). The Policy has provisions for a single License for exploration and production of conventional as well as nonconventional Hydrocarbon resources, pricing and marketing freedom and reduced rate of royalty for offshore blocks among other benefits. ⁵

India is a net exporter of petroleum products since FY 2001-02 and also the largest exporter of petroleum products in Asia since August 2009. ⁵

Two world-class gas hydrate reservoirs have been discovered under National Gas Hydrate Project-2 (NGHP-2). This has opened new avenues for alternative resources. ⁵

Investment opportunities are in the upstream sector, gas pipeline, city gas distribution (CGD) network, LNG terminal, development of underground coal gasification, coal to liquids, petrochemical and refinery. ⁵

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RECENT ANNOUNCEMENTS

30th December 2020: Cabinet approves modified scheme to enhance ethanol distillation capacity in the country.

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23rd December 2020: Union Minister of Petroleum and Natural Gas & Steel Shri Dharmendra Pradhan mentioned in Stanford Alumni Group that India is an attractive investment destination for the energy sector.

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20th December 2020: Shri Dharmendra Pradhan dedicates the 8th producing Basin of India - Bengal Basin, to the nation to bolster the efforts to meet one of the vital essentials- the energy need for AtmaNirbhar Bharat

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17th December 2020: Hon'ble Minister of Petroleum & Natural Gas and Steel Shri Dharmendra Pradhan invites India Inc. to join the Atmanirbhar Bharat Urja initiatives to improve the lives of Indians with a smaller carbon footprint.

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14th December 2020: Minister of Petroleum and Natural Gas and Steel Shri Dharmendra Pradhan said that PM Shri Narendra Modi has made Swachhta a Jan Andolan which is drawing wide participation from society, urban and rural areas alike.

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STATISTICS

The Oil and Gas industry in India ranks amongst India's 8 core industries.

India is the 3rd largest consumer of oil in the world, after the United States & China. ⁵

India produced 34.2 MMT of crude oil and 262.4 MMT of petroleum products during 2018-19. ⁶

India has an estimated reserve of 1380.63 BCM of Natural Gas (as of 1st April 2019). ⁷

India has 247.57 MTPA of refining capacity with a surplus refining capacity of about 15%, making it the second-largest refiner in Asia after China. ⁸

Domestic crude oil production for the month of October 2020 was 2572 TMT as showing an achievement of 93.09%. Natural gas production for the month of October 2020 was 2414 MMSCM showing an achievement of 81.64%.

GROWTH DRIVERS

The Natural Gas Grid (NCG) has promoted the usage of natural gas as a fuel/feedstock across the country to move towards a gas based economy. The development of additional 13500 km long gas pipeline is under way to complete the NGG. ⁹

The Government of India has extensively boosted the expansion of City Gas Distribution (CGD) network coverage across the country to make natural gas available for the public. CGD networks ensure the supply of cleaner fuel (i.e. PNG) to households, Industrial & commercial units and transportation fuel (i.e. CNG) to vehicles. ⁹

The Direct Benefit Transfer Kerosene (DBTK) Scheme has been launched to bring reforms and better subsidy management in allocation and distribution of Public Distribution System (PDS) - Superior Kerosene Oil (SKO) distribution system. ⁹

Under the National Policy on Biofuels 2018, biofuels have been categorised as "Basic Biofuels" viz. First Generation (1G) bio ethanol & biodiesel and "Advanced Biofuels" – Second Generation (2G) ethanol, bio-CNG and other similar fuels. The categorisation is done to provide appropriate financial and fiscal incentives under each category. ⁹

On 21st December, MOU was signed between CSIR-Indian Institute of Petroleum and Vietnam Petroleum Institute to promote cooperation in petroleum research and training. ²²

Initiatives which are driving growth in the Exploration and Production sector include: ⁹

Gas pricing reforms

Policy framework for early monetization of Coal Bed Methane (CBM)

Discovered Small Field (DSF) Policy

Reform Initiatives to enhance Domestic Production

Hydrocarbon Exploration and Licensing Policy (HELP) coupled with operationalization of Open Acreage Licensing Policy (OALP)

Monetization of the Ratna offshore field

Permission of Extraction of Coal Bed Methane (CBM) to Coal India Limited (CIL) & its subsidiaries in Coal Mining area

Policy for the Grant of extensions to Pre-NELP Discovered fields and Exploration Blocks

Hydrocarbon Vision 2030 for North East

National Seismic Programme of Un-appraised areas

National Data Repository (NDR)

Policy framework to permit exploration and exploitation of unconventional hydrocarbons in existing acreage of Production Sharing Contracts (PSCs), Coal Bed Methane (CBM) contracts and Nomination fields

Policy framework for streamlining the working of PSCs

Policy framework to incentivise enhanced recovery methods for oil and gas

FDI POLICY

The government has allowed up to 100% Foreign Direct Investment (FDI) under the automatic route, in the following: ¹⁰

Exploration activities of oil and natural gas fields,

Infrastructure related to marketing of petroleum products and natural gas,

Marketing of natural gas and petroleum products, petroleum products' pipelines, natural gas pipelines,

LNG regasification infrastructure, market study, formulation and petroleum refining in the private sector,

The policy of the government or private participation in the exploration of oil and the discovered fields of natural oil companies

The government has allowed up to 49% Foreign Direct Investment (FDI) under automatic route, in case of petroleum refining by PSU, without disinvestment of dilution of domestic equity in existing PSUs. ¹⁰

SECTOR POLICY

HYDROCARBON EXPLORATION & LICENSING POLICY (HELP)¹¹

The new Hydrocarbon Exploration & Licensing Policy (HELP) has replaced the previous policy regime for exploration and production of oil and gas, known as New Exploration Licensing Policy (NELP). HELP provides a uniform licensing system to explore and produce all hydrocarbons such as oil, gas, coal bed methane, shale oil/gas, etc. under a single licensing framework.

OPEN ACREAGE LICENSING POLICY (OALP)¹¹

The Open Acreage Licensing Policy (OALP) was notified in 2017 by the GoI as a part of the Hydrocarbon Exploration and Licensing Policy (HELP). Under OALP, potential investors/ companies can view the surface and sub-surface geological, geophysical and other technical data on the National Data Repository (NDR) and submit Expressions of Interest round the year.

NATIONAL DATA REPOSITORY (NDR)¹¹

National Data Repository (NDR), a pre-requisite for making OALP operational is set up at the Directorate General of Hydrocarbons (DGH) to make the entire Exploration and Production (E&P) data available for commercial exploration, research and development and academic purposes.

DISCOVERED SMALL FIELD POLICY¹¹

With an aim to monetize hydrocarbon resources locked-in for years, the GoI approved the Discovered Small Field Policy. As an opportunity to increase domestic production of oil and gas, a total of 30 contracts for 43 discovered small fields were signed with 20 companies in March, 2017 under the first round of bidding. Under the second round, 59 discovered small fields/ unmonetized discoveries clubbed into 25 new contracts were offered for bidding in 2018. These fields are estimated to have 194.65 MMT Oil and Oil equivalent gas.

NATIONAL POLICY ON BIOFUELS 2018

With a target of 20% blending of ethanol in petrol by 2030, the National Policy on Biofuels 2018 has been notified by the Government of India. The policy is expected to boost the Biofuel programme of the country and has also widened the scope of raw material for ethanol procurement.¹¹

According to the National Policy on Biofuel 2018 envisages a target of 20% blending of ethanol in Petrol by 2030.

Following benefits are expected out of the new policy:¹²

- Reduce Import Dependency
- Cleaner Environment
- Health benefits
- Municipal Solid Waste Management
- Infrastructural Investment in Rural Areas
- Employment Generation
- Additional Income to Farmers

MISSION PURVODAYA¹⁹

Mission Purvodaya emphasized to harness the untapped potential of this region to fuel the next wave of national growth. This will drive Eastern India towards self-reliance and contribute in the making of an Aatmanirbhar Bharat. India is developing gas infrastructure including pipelines, LNG terminals and CGD network.

SATAT (SUSTAINABLE ALTERNATIVE TOWARDS AFFORDABLE TRANSPORTATION)²⁰

The target is to have 5000 compressed biogas plants of 15 MMT per year with investment potential for US \$ 20 bn.

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FINANCIAL SUPPORT

The Oil Industry Development Board, established under the Oil Industry (Development) Act, 1974 provides financial including loans and grants for development of the Oil Industry in India.¹³

The National Policy on Biofuels 2018 indicates a viability gap funding scheme for 2G ethanol Bio refineries of INR 5000 crore in addition to tax incentives.¹³

The Government of India has approved policy framework to promote Enhanced Recovery (ER), Improved Recovery (IR) and Unconventional Hydrocarbon (UHC) production methods/ techniques for Oil and Gas. The framework provides fiscal incentives in the form of partial waiver of royalty and cess.¹³

To provide financial assistance to sugar mills for enhancement and augmentation of ethanol production capacity, the Department of Food & Public Distribution has introduced a Scheme which aims to infuse INR 1,332 crore via Interest Subvention route.¹³

The Ethanol Blended Petrol (EBP) programme is being implemented by the government through Oil Marketing Companies (OMCs) under which OMCs sell ethanol blended petrol with percentage of ethanol up to 10%. To support this initiative, the government has reduced the GST rate from 18% to 5% on ethanol meant for EBP programme.¹³

INVESTMENT OPPORTUNITIES

Under the Hydrocarbon Exploration & Licensing Policy (HELP), the exploration acreage has now reached to about 2,15,000 sq. km. after 4 successful bidding rounds of Open Acreage Licensing Programme (OALP). The future exploratory work commitment comprises of the following:¹⁴

- 29,270 line km of 2D Seismic Survey
- 43,272 square km of 3D Seismic Survey
- 369 Exploratory Wells
- 290 core analysis to establish Shale Resources

These commitments have a potential to generate an investment of about USD 2.35 Bn in exploratory work alone.¹⁴

Under the 2G Ethanol Programme, Oil Marketing Companies (OMCs) are in the process of setting up 12 2G bio-refineries for production of ethanol with an investment of about USD 1.33 Bn.¹⁵

The Oil Industry Development Board provides financial and other assistance for development of Oil Industry in India. Strategic Petroleum Reserves Ltd. (ISRPL), a wholly owned subsidiary of Oil Industry Development Board (OIDB) has been mandated to build and operate strategic crude oil reserves.¹⁵

Under Phase I of Strategic Petroleum Reserve (SPR) programme, the government (through ISRPL) has built SPR facilities with a total capacity of 5.33 MMT. For Phase II of the programme, Union Cabinet has already given ‘In Principle’ approval to establish 6.5 MMT Strategic Petroleum Reserves under PPP mode.¹⁵

Shale Gas and Oil Exploration has immense opportunities in India and is also promoted of the government. The resources can be found in number of sedimentary basins (Gangetic plain, Gujarat, Rajasthan, Andhra Pradesh and other coastal areas) in India, including the hydrocarbon bearing ones – Cambay, Assam-Arakan and Damodar.¹⁵

During the last 3 years, Indian companies have acquired strategic stakes in overseas assets in UAE, Oman, Israel and Russia.¹⁷

From April - December 2019, equity oil and gas from overseas assets is 18.513 MMTOE.¹⁷

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FOREIGN INVESTORS

British Petroleum (UK)

Cairn Energy (India)

Shell (UK)

Niko Resources (Canada)

OILEX Limited (Australia)

Hardy Oil & Gas Plc. (UK)

AGENCIES

Ministry of Petroleum & Natural Gas

Oil Industry Development Board

Petroleum Conservation Research Association

Directorate General of Hydrocarbons

Petroleum Planning & Analysis Cell

Petroleum & Natural Gas Regulatory Board

Oil Industry Safety Directorate

Indian Strategic Petroleum Reserves Ltd. (ISPRL)

KEY ACHIEVEMENTS

India is the fourth-largest refiner in the world with a total refining capacity of 247.57 MMTPA.¹⁵

The target of providing LPG connections to 5 crore women belonging to the Below Poverty Line (BPL) under the ‘Pradhan Mantri Ujjwala Yojana’ was achieved 8 months ahead of the schedule.¹⁵

A total of 32 blocks covering approximately 59,000 sq. km area have been awarded under OALP bid Rounds II and III during the year 2019. Under bid round IV of OLAP, 7 Blocks with an area of approximately 18500 sq. km have been awarded.¹⁶

26.79 cr LPG customers are availing subsidy under PAHAL Scheme and nearly 9 lakh customers have joined this scheme in the month of September, 2020. As on 30.09.2020, more than 1.08 cr customers have given up LPG subsidy under the ‘Give it Up’ initiative.¹⁸

The 2655 km Jagdishpur – Haldia&Bokaro – Dhamra Pipeline Project (JHBDPL) is being executed by GAIL at an investment of INR 12,940 crore, which includes 40% capital grant (i.e. INR 5,176 crore). JHBDPL will cater to the energy requirements of five states, namely Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal.¹⁶

Under the City Gas Distribution Bidding, 86 Geographical Areas (GAs) in the 9th round and 50 GAs in the 10th round have been authorized.¹⁶

Under ‘Pradhan Mantri Garib Kalyan Package’ (PMGKP), as part of the Economic response to COVID-19, free of cost LPG cylinders to PMUY beneficiaries for up to three free LPG refills for the next 3 months w.e.f 01.04.2020 are being provided.²¹

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