

Driving growth Energising lives



INTEGRATED ANNUAL REPORT 2018-19



Driving growth Energising lives

In sync with the global trends in the energy sector, we at IndianOil are expanding across diverse energy verticals in our endeavour to seize all emerging opportunities.

Tried and trusted for over six decades, we take immense pride in providing innovative energy solutions for a nation on the rise.

As a future-ready business enterprise with focus on technology and innovation, we believe that the way forward lies in passionately pursuing energy inclusion of the masses to transform a billion lives.

Fortified by the core values of *Care, Innovation, Passion* and *Trust*, 33,498 IOCIans stand united and committed to a clean and green planet and energy prosperity for all.

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In this report, one lakh corresponds to 0.1 million
and one crore to ten million.

ABOUT THE REPORT

Reporting Approach

With extensive petroleum refining, distribution and marketing infrastructure and state-of-the-art R&D facilities, Indian Oil Corporation Limited (“IndianOil” or “the Company”) is one of the India’s largest commercial enterprises. As a responsible corporate citizen, IndianOil has been publishing its *Sustainability Report* since 2005-06 to communicate its social, economic and environment performance to its stakeholders.

In continuation of its efforts in promoting transparency and inclusivity, the Company is publishing its second Integrated Annual Report (IAR) for the year 2018-19. With adoption of the Integrated Reporting Framework, IndianOil aims at providing comprehensive, inclusive and integrated information pertaining to value creation by the organisation for each stakeholder group.

This report is IndianOil’s effort towards providing insights to our internal and external stakeholders about the Company’s internal and external environment, opportunities, risks, material issues & mitigation plans, strategies and future roadmap to contribute towards the sustainable development of the nation.

Reporting Framework

This report has adopted the International Integrated Reporting Council (IIRC) framework for disclosing its performance and showcasing value creation for each stakeholder group.

Reporting Scope and Boundary

This report covers the Company’s operations in the areas of refineries, pipelines, marketing, research & development, petrochemicals, natural gas, exploration and production and alternative energy.

Reporting Period

For financial and statutory information disclosed, the reporting period is 1 April 2018 to 31 March 2019. To provide a holistic perspective to the stakeholders, this report has shown comparison of the last three to five years’ trends for select items.

FROM THE CHAIRMAN'S DESK

Dear IndianOil Investors,

My heartiest greetings to you on my personal behalf and on behalf of IndianOilPeople.

It is my pleasant duty once again to present to you the Integrated Annual Report of your Company for the financial year 2018-19, focussing on the performance highlights of the year and the high-growth agenda lined up for the future.

You will notice that, like last year, this year too we have followed the Integrated Reporting format focussing on the Company's six key capitals -- Financial Capital, Manufactured Capital, Human Capital, Intellectual Capital, Social & Relationship Capital and Natural Capital.

Without an iota of doubt, IndianOil's strength as a successful enterprise stems from its rich human capital. With a proud legacy of fuelling the growth of all segments of the economy for the past six decades, the 33,000-strong team of IOCians is gearing to play a leadership role in these exciting times as a new India rises on the global arena. IndianOil People take pride in being future-ready by continuously upgrading their skills and capabilities.

Your Company has kept its promises to the nation since inception, working for self-sufficiency and security in energy and related areas. Surmounting many challenges, it achieved sustained growth in sync with the nation to become India's leading Maharatna PSU and one of the largest commercial undertakings.

As the fastest growing economy in the world, India requires access to abundant energy, delivered in new and affordable ways. IndianOil is fully geared for the challenge. Over 50,000 customer touch points of your Company spread across every nook and corner of the nation provide energy solutions to a billion-plus customers to keep India on the move. And we are further expanding our refining capacity, supply & distribution channels and marketing network in line with the growing domestic demand.

Today, as a low-carbon future beckons on the horizon, IndianOil is engaged in building a future full of clean and green energy. We are leading the industry in an unprecedented quantum leap from BS-IV fuels to a world-standard BS-VI compliant regime by April 2020. In line with global trends, we are investing in a big way in India's emerging natural gas economy with new products and offerings for diverse customer groups. We are deeply committed to the sustainability principle and are progressively integrating alternative energy and renewables in our operations as well as in our expanding bouquet of offerings.



Shri Sanjiv Singh

Global and Indian economic scenario

- Global economic growth slowed down to 3.6% in 2018, from 3.8% in 2017
- Growth in emerging economies also decelerated to 4.5% in 2018, from 4.8% in 2017
- Economic deceleration due to rising trade protectionism, US-China trade tensions, etc.
- Indian economy grew by 6.8% in 2018, fastest growing large economy
- Growth propelled by private spending, industry, manufacturing and capital formation
- Retail inflation (CPI) slowed down to 3.41%, lowest in last seven years

The fount of your Company's future-readiness is its world-class R&D Centre, which gives shape to products and technologies of the future. Its rich repository of intellectual capital has now crossed a major milestone of over a thousand patents.

INDUSTRY SCENARIO

The hydrocarbons sector has contributed enormously to global economic progress over the last century. Today, however, it is facing competition from new and emerging energy options and technologies. The 21st century is definitely going to witness economies based on clean fuels, and low-carbon options will get progressively entrenched in the energy mix, with policy backing. It is time for the oil & gas corporates to once again reinvent themselves and continue to play a lead role, especially in those parts of the world like India where primary energy consumption continues to register a dramatic rise.

The need of the hour is to integrate new technologies like digitalisation, Artificial Intelligence, Internet of Things, etc., in all segments of the industry, together with innovative process technologies, to provide efficient, clean and green energy solutions for all customer segments and businesses to ensure that nation's economic growth is not hampered in any way.

The domestic refining sector is attempting a very ambitious project of leap-frogging from BS-IV to BS-VI fuels regime. Indian refiners are on track to usher in the cleanest automotive fuels across the country from April 2020. In fact, IndianOil refineries have completed over 90% of the BS-VI projects and should be ready to supply the upgraded fuels well within the stipulated timeline. The success of this ambitious initiative will further enhance India's credentials as a world-class refining hub in Asia, with the fourth largest refining capacity (249.4 MMTPA) in the world.

The country has robust supply & distribution channels, a 30,000-km network of oil & gas pipelines, about 24,000 LPG distributors, and over 64,600 fuel stations, with another 55,000 in the offing.

Road to reform: India's fuels upgradation programme

- BS-IV fuels implementation across India: Completed by April 2017
- BS-VI fuels implementation in NCT: Completed by April 2018
- BS-VI implementation in NCR and Agra: Underway from April to Oct. 2019
- BS-VI fuels implementation across India: To be completed by April 2020
- Estimated investment of OMC refineries on BS-III to BS-VI conversion projects: Rs. 53,500 crore

Global oil & gas scenario

- Global primary energy consumption grew by 2.3% in 2018, as against 1.9% in 2017
- Oil demand grew by 1.2%, with natural gas as the fastest growing fuel, accounting for 44.5% of the increase in total energy demand
- Brent crude oil prices averaged \$71.1 per barrel in 2018, registering a significant increase of \$16.7 per barrel over 2017

Indian oil & gas scenario

- India's petroleum products consumption in 2018-19 was 211.6 MMT, with 2.7% growth over 2017-18
- Petrol consumption rose by 8.1%, diesel by 3%, and LPG by 6.8%
- India's refining capacity stood at 249.4 MMTPA at the end of 2018-19, second largest in Asia
- Crude oil imports rose by 2.8% to 226.6 MMT
- Indian crude oil basket averaged at \$69.8/barrel in 2018-19, 23.8% higher than 2017-18 level

INDIANOIL: STRENGTHENING CORE BUSINESS

Your Company's performance in the financial year 2018-19 has been exceptional in terms of both operational and financial parameters. Besides posting all-time high records in the three major parameters – sales as well as refineries and pipelines throughputs – the Company crossed the Rs. 6 lakh crore milestone in turnover for the year, with handsome profits. With *numero uno* position in the downstream petroleum sector, the Company continued with its legacy of putting the nation first and providing viable fuel solutions to diverse customer groups, while at the same time strengthening its new verticals of E&P, Petrochemicals and Gas.

Marketing

Your Company, which caters to nearly half of India's petroleum consumption, registered its best ever sales volumes in 2018-19. In the backdrop of India's primary energy demand outpacing global demand, rising infrastructure projects and a surge in commercial vehicle sales led to record high diesel consumption in 2018-19. Matching this pace of growth, IndianOil maintained its place at the top and did well in institutional sales too, registering increase in market share in all products. Similarly, your Company's time-tested commitment and service to the defence forces and the security eco-system of the nation have won many accolades.

IndianOil: Fuelling a billion dreams

- IndianOil's turnover crossed Rs. 6 lakh crore milestone in 2018-19
- Sales, including exports, in 2018-19: 89.89 MMT
- Exports in 2018-19: 5.24 MMT
- Number of customer touch-points crossed the 50,000 mark
- Total No. of fuel stations automated: 27,700
- New heights in aviation fuelling, with 116 AFSs.

As the industry leader in retail sales, IndianOil completed automation of its countrywide fuel stations network during the year to enhance Q&Q (quality & quantity) assurance to its customers. The ambitious *Project Dhruva* initiative currently underway encompasses new technologies and services to achieve greater efficiency in operations and a superior buying experience for your Company's retail customers.

LPG for all: Clean fuel, better life

- Total LPG households in India: 26.5 crore
- *PaHaL* households receiving subsidy in their bank accounts: 24.5 crore
- PMUY target: Deposit-free LPG connections to 8 crore BPL households by 2020
- PMUY target achieved till now: 7.2 crore households
- LPG penetration achieved: Over 94%
- New Indane connections released in 2018-19: Over 2 crore, highest in a year
- IndianOil's LPG sales surpassed 1 million tonnes a month

Over the last five years, your Company has had the privilege of spearheading mega schemes like *PaHaL* LPG subsidy scheme, *#GiveltUp* campaign and *PMUY (Pradhan Mantri Ujjwala Yojana)* that have made clean energy accessible across socio-economic divides.

IndianOil has been extending the reach of its *Indane* Superbrand to more households every year. Leading the push for clean energy, the Company released the highest ever number of new LPG connections in a year in 2018-19.

SERVO, another IndianOil Superbrand, achieved top position in the retail lubes segment for the first time in recent years, besides registering impressive growth in overall finished lubes. Your Company's aviation fuelling business too gained higher altitude with addition of nine more Aviation Fuel Stations (AFS) during the year.

Your Company exported 5.24 million tonnes of products in 2018-19. Product exports to Nepal rose from 2.1 to 2.4

million tonnes and export of Indane Nanocut (additised LPG suited for high-temperature industrial applications) to Bangladesh commenced during the year. IndianOil opened a new representative office in Nepal in addition to existing offices in Myanmar and Bangladesh, and full-fledged subsidiaries operating in Sri Lanka, Mauritius, Singapore and UAE.



IndianOil released more than 2.1 crore new LPG connections during 2018-19, raising the Indane customer base to over 14.8 crore households.

Refineries

IndianOil refineries excelled in all major physical parameters and achieved a record combined crude oil throughput during 2018-19. The refineries also registered the best ever numbers in Specific Energy Consumption (MBN), Energy Intensity Index (EII) and Fuel & Loss.

A world-scale Polypropylene (PP) plant was commissioned at Paradip Refinery in Feb. 2019 to act as the mother unit in nurturing the downstream plastics processing industry in the region. Work has also commenced on a Monoethylene Glycol (MEG) plant at Paradip Refinery, which is envisaged as a key driver for the textiles industry in the region, especially for polyester fibre. Two other major projects in progress are: capacity expansion of IndianOil's Barauni Refinery and an ATF production unit using the in-house INDJet technology of IndianOil's R&D Centre.

The energy for India's rise

- Refineries throughput in 2018-19: 71.82 MMT
- Major projects commissioned during 2018-19:
 - » PP plant at Paradip Refinery: 680 KTA
- Major projects commenced during 2018-19:
 - » MEG plant at Paradip Refinery: 357 KTA
 - » Barauni Refinery expansion from 6 to 9 MMTPA
 - » ATF production unit using IndJet technology
- 4.6 MMT term contracts concluded for crudeoil from USA

For the first time, your Company concluded term contracts for sourcing crude oil from USA during the year, besides enhancing its capabilities to process crude oil grades from a wider and cheaper basket, with flexibility for sourcing additional volumes in term contracts to manage contingencies.

Pipelines

During 2018-19, IndianOil's crude oil & product pipelines clocked the highest ever combined throughput, setting a new record for the fifth consecutive year. The countrywide pipelines network provides immense competitive advantage to the Company in the new era of digitally-aided logistics.

Pipelines: Arteries for energy flow

- Pipelines throughput during 2018-19: 88.53 MMT
- Pipelines length commissioned in 2018-19: 950 km
- Major among them:
 - » Paradip-Haldia-Durgapur LPG pipeline: 516 km
 - » Jaipur-Panipat naphtha pipeline: 344 km
- Total length of pipelines network: 14,231 km
- Combined throughput capacity: 94.2 MMTPA for liquid pipelines and 21.69 MMSCMD for gas pipelines
- Major pipeline projects underway:
 - » Kandla-Gorakhpur LPG pipeline: 2,757 km
 - » Indradhanush gas grid in the northeast: 1,656 km

Work has commenced on two major pipeline projects with joint venture (JV) partners during the year 2018-19. The Kandla-Gorakhpur LPG Pipeline, on completion, will be the longest LPG pipeline in the world, and will directly feed 22 bottling plants en route. The project will be executed by a JV of IndianOil, BPCL and HPCL. IndianOil has also formed a JV, Indradhanush Gas Grid Ltd., with ONGC, OIL, GAIL and NRL to develop a gas pipelines grid connecting all the State capitals of the northeast.

Other than its City Gas Distribution (CGD) projects and those with JV partners, 17 pipeline projects of the Company with a combined capex of about Rs. 24,000 crore are in various stages of implementation. On their completion in the next three years, IndianOil's pipelines network will expand to about 21,500 km.

Research & Development

IndianOil's R&D Centre is shaping into a game-changer in the ensuing competitive scenario as your Company adds new technologies, products and services to its bouquet of offerings.

The year 2018-19 saw your Company further build upon the confidence reposed by its customers by developing and commercialising products and process technologies that cater to the changing industry needs.

Inventing the future with world-class R&D

- Over four decades of R&D expertise in lubricants formulation, refinery processes, pipeline transportation, catalysts & additives, alternative fuels, etc.
- Over 1,000 patents filed till date; 100 to 120 patents per annum in the last five years
- Over 100 new lubricant formulations developed in 2018-19, 87% commercialised
- State-of-the-art Product Applications Development Centre for polymers business
- Support to start-ups in energy and social innovation sectors

Adding to the Company's intellectual wealth, the R&D Centre crossed a stellar milestone of filing its 1,001st patent recently. IndianOil's IP (Intellectual Property) portfolio currently comprises 794 active patents, of which 542 patents were granted abroad and 252 in India. Your Company has a higher commercialisation rate for its patents than the global average. Several of the quality upgradation projects implemented at IndianOil refineries for production of BS-VI fuels are based



IndianOil refineries, working relentlessly to implement BS-VI upgradation projects to meet the April 2020 target for supply of BS-VI fuels across the country.

on deep desulphurisation, isomerisation and dimerisation technology patents developed in-house.

The R&D Centre also commissioned a 5 tonnes-per-day plant at Faridabad for converting organic waste to biogas with a methane content of over 80% based on a novel bi-methanation technology developed in-house. The Centre is also commercialising a 2G ethanol process, together with a novel enzyme, which reduces ethanol production costs by 30%.

Your Company incurred a capital expenditure of Rs. 28,200 crore in 2018-19; the capital outlay for the current fiscal is Rs.25,083 crore.



IndianOil's R&D Centre developed over 100 new lubricant formulations during the year and commercialised 87% of them.

BUILDING NEW BUSINESSES

Besides making significant investments in upstream assets and petrochemicals, which are making significant additions to the Company's business in terms of equity oil and profitability, IndianOil is integrating natural gas and renewables in its energy value chain in a big way to be ready for a low-carbon future.

Exploration & Production

With a balanced portfolio of producing, discovered and exploration assets, your Company achieved significant progress in terms of 2P reserves, production volumes, equity oil and revenues during the year 2018-19.

IndianOil currently has participating interest (PI) in 10 domestic and 12 overseas E&P assets spread across 10 countries. The year 2018-19 was marked by acquisition of PI in E&P assets in Oman, Abu Dhabi and Israel.

Heading upstream for energy security

- Balanced portfolio of E&P assets; 10 in India and 12 overseas
- Overseas assets spread across 10 countries: Canada, USA, Russia, Venezuela, Abu Dhabi, Oman, Libya, Nigeria, Gabon and Israel
- Strategic tie-ups with over 20 reputed national & international energy corporates
- Acquired participating interest in E&P assets in Oman, Abu Dhabi and Israel in 2018-19

Petrochemicals

IndianOil is fast evolving into a petrochemicals major and has registered a robust 11.4% growth in sales in 2018-19. Backed by world-scale plants and world-class technology, IndianOil's *PROPEL* brand petrochemicals cover over 80% of a broad spectrum applications in plastics and are exported to over 70 countries.

Your Company has invested heavily in this vertical over the last two decades, incurring a capex of over Rs. 25,000 crore

Propelling growth with petrochemicals

- Petrochemicals sales in 2018-19: 2.64 MMT
- Production capacity enhanced to 3.15 MMT
- Major ongoing projects:
 - » MEG plant at Paradip
 - » Expansion of Naphtha Cracker at Panipat
- New projects envisaged till 2023-24
 - » Acrylic acid/Oxo-alcohol project at Gujarat
 - » PX/PTA project at Paradip
 - » Petcoke gasification in Paradip
 - » Textiles project in Eastern India
 - » PBR project at Panipat

in major petrochemical projects such as LAB plant at Gujarat, PX/PTA plant and Naphtha Cracker at Panipat, and PP plant at Paradip. Among the major ongoing projects are MEG plant at Paradip and capacity expansion of Naphtha Cracker at Panipat.

IndianOil has firm plans to invest Rs. 26,000 crore on various ongoing and new petrochemical projects till 2023-24 to consolidate business. These projects include revamp/ augmentation of existing capacities and new projects as well as equity investment in *Hindustan Urvarak & Rasayan Ltd.* (HURL).

The IndianOil Board has also accorded approval for a Plastics Park at Paradip through a JV with Industrial Development Corporation of Odisha. Similarly, Board approval has been obtained for land procurement and finalisation of a JV partner for a textiles project at Bhadrak in Odisha. Industrial Promotion & Investment Corporation of Odisha has allotted 60 acres of land for the textiles project.



Backed by world-scale plants and world-class technology, IndianOil's PROPEL covers over 80% of all conceivable applications in plastics, and is exported to over 70 countries.

Natural Gas

Natural gas is transforming into a major businessline for your Company, and the recent commissioning of the state-of-the-art LNG import terminal at Ennore has given it a big boost.

As the second largest player in this growing segment, IndianOil is building infrastructure and retail networks to reach out to all user segments: industry-transport-homes-commercial establishments.

Fuelling the future with natural gas

- Natural gas sales in 2018-19: 3.96 MMT
- Capacity of Ennore LNG terminal: 5 MMT/PA
- Geographical Areas (GA) won by IndianOil on its own after 9th and 10th round of CGD bidding: 17
- GA won in partnership with JVs: 23
- Total tally of GAs with IndianOil: 40
- Investments in CGD over next 8 years, including equity contribution in JVs: Rs. 10,000 crore

With a portfolio of about 60 R-LNG customers, besides supplies to the Company's own refineries at Mathura, Panipat and Koyali, IndianOil registered a 2.6% growth in natural gas sales in 2018-19.

Besides being a JV partner in Indradhanush natural gas pipeline grid in the Northeast, your Company is investing in two more joint ventures that are laying three gas pipelines of a combined length of 3,760 km covering nine States.

Your Company is pursuing an ambitious agenda in city gas distribution (CGD) covering 40 Geographical Areas (GA) on its own as well as with reputed joint venture partners. IndianOil's investment on development of CGD networks in the next eight years is likely to be about Rs. 10,000 crore.

Alternative Energy

Your Company is fully aligned to the country's aspirations to transit to clean energy and has planned Rs. 25,000 crore investment in green energy projects. Besides a target to scale up its solar energy and wind-power portfolio to 260 MW by the year 2020, IndianOil has initiated diversification into alternative, renewable energy and bio-fuels – 2G & 3G ethanol, waste-to-energy and compressed bio-gas (CBG).

Your Company is spearheading the Government's innovative SATAT (Sustainable Alternative Towards Affordable Transportation) initiative launched in 2018 as a waste-to-wealth measure. With similar calorific value and other properties, CBG has the potential to replace CNG as an affordable fuel in automotive, industrial and commercial uses by conversion of biomass, or any kind of organic waste. In fact, the evolving CBG programme will go a long way in reducing India's dependence on crude oil imports.

Green energy for a green future

- Rs. 25,000 crore investment planned in alternative energy and sustainable development projects
- Solar energy and wind-power portfolio to be scaled up from 212 MW to 260 MW by the year 2020
- LOIs issued for 96 plants to supply 782 tonnes per day of CBG under SATAT initiative
- 5,000 more Company fuel stations converted to run on solar energy in 2018-19
- Cumulative installed capacity of Company's 14,000+ solar-operated fuel stations: 77 MW



Surging ahead, IndianOil plans to invest Rs. 25,000 crore in alternative energy and sustainable development projects.