

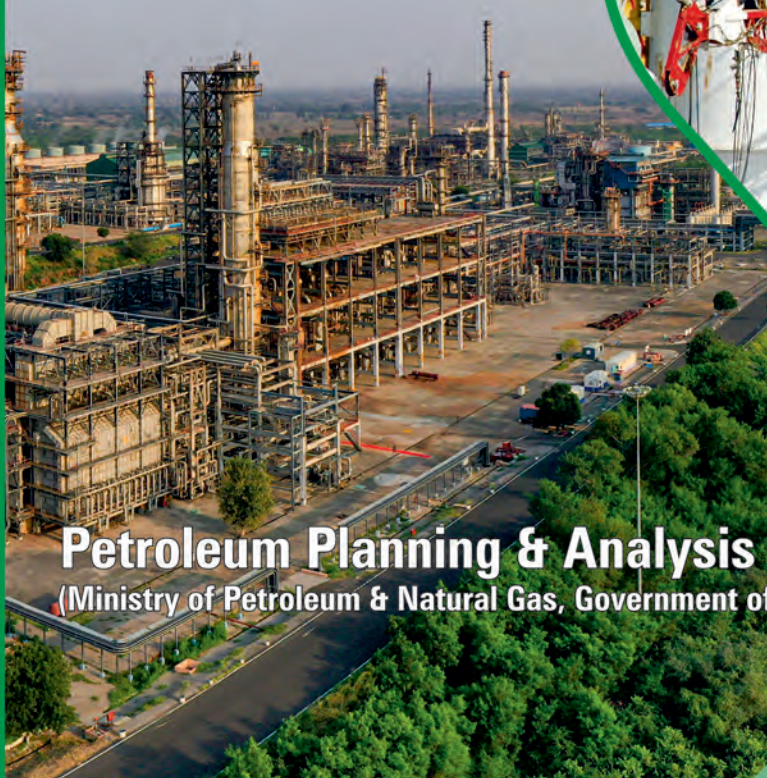


# India's Oil & Gas READY RECKONER

Oil & Gas Industry Information at a Glance

**FY 2023-24 (H1)**

[April 2023 - September 2023]



**Petroleum Planning & Analysis Cell**  
(Ministry of Petroleum & Natural Gas, Government of India)

India's Oil & Gas READY RECKONER Oil & Gas Industry Information at a Glance FY 2023-24 (H1) [April 2023-September 2023] Petroleum Planning & Analysis Cell (Ministry of Petroleum & Natural Gas, Government of India)



## **Suggestions & Feedback**

Readers are invited to send their suggestions & feedback for improvement of the Ready Reckoner to:  
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PPAC also thanks various organizations from the Oil & Gas sector for providing useful inputs for inclusion in the Ready Reckoner.

## **Disclaimer**

While every care is taken to check the accuracy of data & information included in the Ready Reckoner, PPAC would not be held responsible for any loss, damage etc. due to action taken by any one based on information contained in this publication.

# Preface

Petroleum Planning & Analysis Cell (PPAC), an attached office of the Ministry of Petroleum & Natural Gas (MoPNG) is playing pivotal role in the transition process with all sorts of energy data analysis and decision making. PPAC, publishes the 'Ready Reckoner' bi-annually, a comprehensive databank for key Oil & Gas industry of the country. Ready Reckoner H1 edition contains the latest information for H1 FY2023-24 and historical time series data in nine broad chapters for stakeholders including the Oil & Gas value chain planners, policymakers, academicians, analysts, market researchers & the industry in a single platform.

The current edition of Ready Reckoner is getting released when COP`28 at Dubai, UAE, in the middleeast has just ended with a call for 'transitioning away from fossils fuels.The venue makes it more important as fossil fuels are at the centre stage of climate change and the middle east is main source of Oil part of fossil fuels. Theme of the conference is fast tracking the energy transition and slashing emissions before 2030 to limit global warming to 1.5° C (2.7° F) above pre-industrial levels. Put nature, people, lives and livelihoods at the heart of climate action, including helping the most vulnerable communities adapt to the change that's already occurring.

It is also important to mention here that the world is at middle of the timeframe for the 2030 Agenda for Sustainable Development Goal, adopted by all United Nations Member States in 2015. Also to achieve the target to limit global warming to 1.5°C compared to pre-industrial levels, it is desired that emissions must be halved by 2030. While we have another seven years to meet the goals, India is at the forefront of actions for speedy transition and meeting various SDG goals.

Actions on Oil and Gas front since last Ready Reckoner are as follows.

- Government has set target to increase share of gas in energy mix up to 15 per cent by 2030. By the end of 11th CGD bidding round, about 98% population & 88% geographical area of the country is covered. Plan are underway to cover the rest of the country in the round 12.
- The Global Biofuel Alliance launched at the G20 Summit in India in September. It brings together 19 countries and 12 international organizations – including the World Economic Forum, the World Bank and the Asian Development Bank – to try to expand the use of sustainable biofuels. It will be appropriate to note that the country meanwhile crossed Ethanol Blending in Petrol of 12% during the current ESY Dec'22-Oct'23 achieving 12.1% on cumulative basis. India is also on track to achieve 20% blending by 2025 and E20 petrol is already available at 4,584 fuel outlets. Successful Pilot Study on E27 Fuel and Ethanol Blended Diesel Fuel have also taken place in country.
- To decarbonizing of the aviation sector, India's first commercial passenger flight using indigenously produced Sustainable Aviation Fuel (SAF) blend was successfully flown in May this year. The flight from Pune to Delhi was powered by SAF blended Aviation Turbine Fuel (ATF) produced by using indigenous feedstock.
- With Government of India's focus to accelerate E&P activities across the Country, MoP&NG launched Open Acreage Licensing Programme (OALP) Bid Round-VIII, offering 10 blocks, for International Competitive Bidding. Award of OALP Round-VIII Blocks will further add 34,364.53 sq. km. of acreage and take the cumulative exploration acreage under OALP to 242,055 sq. km.

- The PM Ujjwala Yojana has been expanded with 75 lakh additional LPG connections to be released in 3 years. It will take total number of PMUY beneficiaries to 10.35 crore. The subsidy on PMUY refills raised from ₹200 per cylinder to ₹300 for up to 12 refills per year, making the LPG more affordable.
- World's first prototype of the BS 6 Stage II 'Electrified Flex fuel vehicle' launched. This innovative vehicle is engineered to adhere to India's stricter emission standards and India can utilise excess ethanol potential by promoting flex fuel vehicles.
- More than 16% of total outlets have alternate fuels at 14163 Retail Outlets across the Country and of these 9576 outlets offer EV charging facilities to commuters.
- 1st Green Hydrogen Fuel Cell Bus from Kartavya Path, New Delhi.
- Reference Fuels were launched in spirit of Atma Nirbhar Bharat

The data for Ready Reckoner is obtained from the Public Sector Oil & Gas Companies, Government bodies and Private Companies. The collected metadata is processed and scrutinized at various levels before it is published in Ready Reckoner or some e-platform.

The Ready Reckoner is also published on PPAC's website (<https://www.ppac.gov.in>) and on our mobile app - PPAGE which can be downloaded on mobile device through both Google Play Store and Apple Store. From this time, it will be hosted on our new revamped website with better presentation and manoeuvrability.

The publication of Ready Reckoner is a concerted effort by all Divisions of PPAC and I would like to place on record my sincere appreciation of the diligent efforts of the officers and staff of PPAC who have contributed to bring out this edition in a timely manner. The cooperation of the Oil & Gas industry and various organizations is sincerely acknowledged for their timely inputs.

PPAC welcomes feedback and suggestions for broadening the coverage and contents of the data being disseminated through this publication. The comments and feedback may kindly be sent to [epankaj.sharma@ppac.gov.in](mailto:epankaj.sharma@ppac.gov.in) or [dirgen@ppac.gov.in](mailto:dirgen@ppac.gov.in).

New Delhi

Date: 14.12.2023



**P. Manoj Kumar**

Director General

Petroleum Planning & Analysis Cell (PPAC)  
(Ministry of Petroleum & Natural Gas)



# Vision & Mission

## VISION

To be the most authentic official source for data and policy analysis on the hydrocarbon sector in the country.

## Mission

1. To monitor and analyze developments in the domestic oil and gas sector.
2. To undertake analysis of domestic and international energy markets.
3. To develop a cooperative framework for exchange of information and conduct of studies with other countries and international organizations in the energy sector.
4. To strengthen the existing data system in PPAC by adopting the latest techniques and best practices.
5. To render effective assistance and advice to the Ministry of Petroleum & Natural Gas in the discharge of

## Objectives

1. To monitor and analyze trends in prices of crude oil, petroleum products and natural gas and their impact on the oil companies and consumers and prepare appropriate technical inputs for policy making.
2. To monitor developments in the domestic market and analyze options for policy changes in pricing, transportation and distribution of petroleum products.
3. To collect compile and disseminate data on the domestic oil and gas sector in a continuous manner and maintain the data bank.
4. To ensure quality of data in terms of prescribed parameters such as accuracy, completeness and timeliness.
5. To disseminate periodic reports on various aspects of oil and gas sector.
6. To ensure effective administration of the subsidy schemes notified by the Government.

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# Chapter-1

# General



**Table 1.1 : Selected indicators of the Indian economy**
**General**

Sl. no.	Particulars	Source	Unit/ Base	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022	Apr-Sep 2023(P)
1	Projected Total Population as on 1st July of the financial year	Report of the Technical Group on Population Projections\$	('000)	13,38,995	13,53,378	13,67,173	13,79,750	13,82,894	13,95,478
2	GDP At constant (2011-12 Prices)	MoC&I	Growth %	4.0 1st RE	-6.6 1st RE	9.1 1st RE	7.2 PE	13.5 QE_Q1 FY 2022-23	7.7 H1 FY 2023-24(E)
3	Agricultural production (Foodgrains)	MoA	Million tonne	297.5	310.7	315.6 FE	329.7 FE	149.9 1st AE (Kharif)	148.6 1st AE (Kharif)
			Growth %	4.3	4.5	1.6	4.5	-	99.1% recovery
4	Index of Industrial Production (Base: 2011-12)	MoSPI	Growth %	-0.8	-8.4	11.4	5.5	7.1	6.0#
5	Imports^	MoC&I	\$ Billion	474.7	394.4	611.9	714.2	372.6	327.0
6	Exports^	MoC&I	\$ Billion	313.4	291.8	422.0	451.0	231.7	211.4
7	Trade balance	MoC&I	\$ Billion	-161.3	-102.6	-189.9	-263.2	-140.9	-115.6
8	Wholesale Price Index (all commodities) (average)	MoC&I	2011-12 = 100	121.8	123.4	139.4	152.5	152.5	152.5
9	All India Consumer Price Index (average):								
	i) Industrial workers	Labour Bureau, Govt. of India	2001=100 2016=100 (wef Sep.2020) <sup>§</sup>	322.5	119.0	127.7	121.9	129.6	137.5
	ii) Agricultural labourers		1986-87=100	979.6	1033.7	1108.0	1108.0	1128.7	1166.0
	iii) Rural labourers		1986-87=100	986.0	1039.9	1119.0	1119.0	1140.5	1171.0
10	Foreign exchange reserves- Total <sup>®</sup>	RBI	\$ Billion	475.6	579.3	606.5	578.4	576.1	587.7
11	Outstanding external liabilities (as of end of financial year)	MoF	₹ Crore	2,99,250	3,88,472	4,29,403	4,83,398 2022-23 (RE)		
12	Outstanding 'internal debt and other liabilities' (as of end of financial year)	MoF	₹ Crore	99,47,402	1,17,39,338	1,31,58,490	1,47,77,724 2022-23 (RE)		
13	Centrally Sponsored Schemes & other transfers	MoF	₹ Crore	6,31,969	7,61,408	6,41,686	4,51,901 2022-23 (RE)		4,76,105 2023-24(BE)
14	Gross fiscal deficit	MoF	%	4.6	9.5	6.7	6.4 2022-23 (RE)		7.8 Q1E

**Note :** \$: Population figures have been taken from table no.11( for yearly data) & table no.14(for H1 data) of 'Report of the Technical Group on Population Projections by RGI is taken as on 1st July for the year. IIP is for the month of "April-Sep-23; @2020-21-as on March 26, 2021, 2021-22 - as on March 26, 2022, Mar 2022 as on Mar 25, 2022 and Mar 2023-as on Mar 31, 2023; September 2022 as on September 30, 2022 and September 2023 as on September 29, 2023. ^Imports & Exports are for Merchandise for the month of September 2023; E: Estimates; PE: Provisional Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.; average 'Consumer Price Index' is the arithmetic average of monthly CPI for April to September period. (P): Provisional; MoA: Ministry of Agriculture; MoF: Ministry of Finance; MoC&I: Ministry of Commerce & Industry; MoSPI: Ministry of Statistics and Programme Implementation; RBI: Reserve Bank of India; E: Estimates; ; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.

**Petroleum**

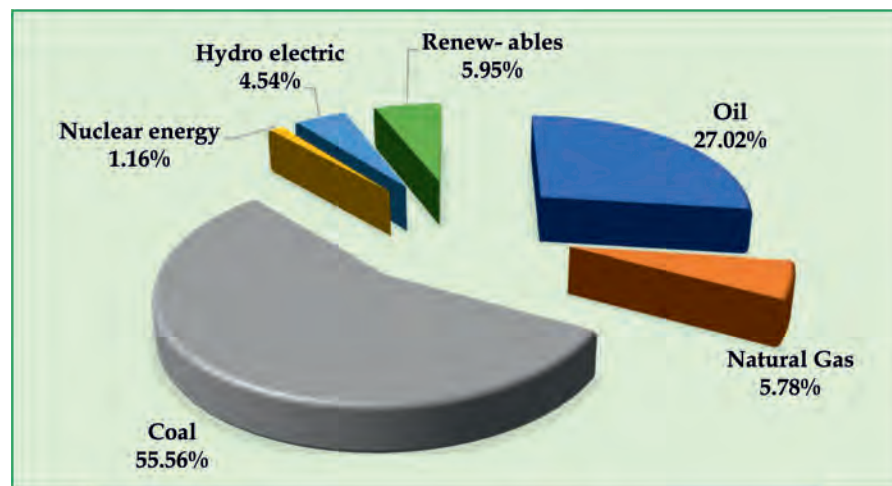
Sl. no.	Particulars	Source	Unit/ Base	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022(P)	Apr-Sep 2023(P)
1	Crude oil production in India	ONGC/OIL/DGH	MMT	32.2	30.5	29.7	29.2	14.7	14.7
2	Consumption of petroleum products in India	OMCs/PPAC	MMT	214.1	194.3	201.7	223.0	107.4	114.3
3	Petroleum products production in India	Oil Cos	MMT	262.9	233.5	254.3	266.5	131.4	136.6
4	Imports & exports								
	Crude oil imports	Oil Cos	\$ Billion	101.4	62.2	120.7	157.5	89.1	63.7
	Petroleum products imports	Oil Cos & DGCIS	\$ Billion	17.7	14.8	23.7	26.9	14.1	10.8
	Total petroleum imports (crude oil + petroleum products)	Oil Cos & DGCIS	\$ Billion	119.1	77.0	144.3	184.4	103.1	74.4
	Petroleum products exports	Oil Cos	\$ Billion	35.8	21.4	44.4	57.3	32.9	23.6
5	Gross petroleum imports as % of India's gross imports in value terms	MOC&I/PPAC	%	25.1	19.5	23.6	25.8	27.7	22.6
6	Gross petroleum exports as % of India's gross exports in value terms	MOC&I/PPAC	%	11.4	7.3	10.6	12.8	14.2	11.0
7	Import dependency (based on consumption)	PPAC	%	85.0%	84.4%	85.6%	87.4%	86.5%	87.6%

**Natural gas**

Sl. no.	Particulars	Source	Unit/ Base	2019-20	2020-21	2021-22	2022-23	Apr-Sep 2022	Apr-Sep 2023(P)
1	Gross Production	ONGC/OIL/DGH	MMSCM	31,184	28,672	34,024	34,450	17,184	17,879
2	Net Production (net of flare and loss)	ONGC/OIL/DGH	MMSCM	30,257	27,784	33,131	33,664	16,771	17,504
3	LNG Import	LNG importing Cos, DGCIS	MMSCM	33,887	33,198	31,028	26,304	13,680	14,542
4	Total Consumption including internal use (Net Production+ LNG import)		MMSCM	64,144	60,982	64,159	59,968	30,451	32,046
5	Import dependency (based on consumption) ((sl no.3/sl no.4)*100)	PPAC	%	52.8	54.4	48.4	43.9	44.9	45.4

Note : MMSCMD : Million Standard Cubic Meter Per Day

**India's Energy basket in 2022**



Source: Energy Institute Statistical Review of World Energy, 2023.

**Table 1.2 : Global primery energy consumption, 2022**

Sl. no.	Country	Unit	Oil	Natural Gas	Coal	Nuclear Energy	Hydro Electricity	Renewables	Total Energy
1	<b>China</b>	Mtoe	653.36	322.91	2110.02	89.74	291.89	317.42	<b>3785.35</b>
	Percentage share	%	17.26	8.53	55.74	2.37	7.71	8.39	<b>100%</b>
	Per capita consumption	Toe	0.46	0.23	1.49	0.06	0.21	0.22	<b>2.68</b>
2	<b>USA</b>	Mtoe	836.61	757.04	235.56	174.46	58.00	201.19	<b>2262.86</b>
	Percentage share	%	36.97	33.45	10.41	7.71	2.56	8.89	<b>100%</b>
	Per capita consumption	Toe	2.51	2.27	0.71	0.52	0.17	0.60	<b>6.79</b>
3	<b>India</b>	Mtoe	<b>233.18</b>	<b>49.88</b>	<b>479.47</b>	<b>10.02</b>	<b>39.14</b>	<b>51.31</b>	<b>863.01</b>
	<b>Percentage share</b>	%	<b>27.02</b>	<b>5.78</b>	<b>55.56</b>	<b>1.16</b>	<b>4.54</b>	<b>5.95</b>	<b>100%</b>
	<b>Per capita consumption</b>	Toe	<b>0.17</b>	<b>0.04</b>	<b>0.34</b>	<b>0.01</b>	<b>0.03</b>	<b>0.04</b>	<b>0.62</b>
4	<b>Russian Federation</b>	Mtoe	163.57	350.60	76.13	47.97	44.39	1.91	<b>684.58</b>
	Percentage share	%	23.89	51.21	11.12	7.01	6.48	0.28	<b>100%</b>
	Per capita consumption	Toe	1.14	2.44	0.53	0.33	0.31	0.01	<b>4.77</b>
5	<b>Japan</b>	Mtoe	153.36	86.40	117.42	11.22	16.71	36.52	<b>421.62</b>
	Percentage share	%	36.37	20.49	27.85	2.66	3.96	8.66	<b>100%</b>
	Per capita consumption	Toe	1.23	0.69	0.94	0.09	0.13	0.29	<b>3.37</b>
6	<b>Canada</b>	Mtoe	99.07	104.53	9.31	18.62	89.26	14.08	<b>334.87</b>
	Percentage share	%	29.59	31.22	2.78	5.56	26.66	4.20	<b>100%</b>
	Per capita consumption	Toe	2.54	2.69	0.24	0.48	2.29	0.36	<b>8.60</b>
7	<b>Germany</b>	Mtoe	98.84	66.35	55.61	7.40	3.82	58.47	<b>290.49</b>
	Percentage share	%	34.03	22.84	19.14	2.55	1.31	20.13	<b>100%</b>
	Per capita consumption	Toe	1.18	0.79	0.66	0.09	0.05	0.70	<b>3.45</b>
8	<b>Brazil</b>	Mtoe	116.24	27.45	14.08	3.10	95.70	60.38	<b>316.96</b>
	Percentage share	%	36.67	8.66	4.44	0.98	30.19	19.05	<b>100%</b>
	Per capita consumption	Toe	2.25	0.53	0.27	0.06	1.85	1.17	<b>6.14</b>
9	<b>Iran</b>	Mtoe	85.61	196.66	1.91	1.43	1.67	0.48	<b>287.76</b>
	Percentage share	%	29.75	68.34	0.66	0.50	0.58	0.17	<b>100%</b>
	Per capita consumption	Toe	0.40	0.91	0.01	0.01	0.01	0.00	<b>1.34</b>
10	<b>South Korea</b>	Mtoe	126.91	53.22	68.50	37.95	0.72	12.41	<b>299.71</b>
	Percentage share	%	42.35	17.76	22.85	12.66	0.24	4.14	<b>100%</b>
	Per capita consumption	Toe	1.43	0.60	0.77	0.43	0.01	0.14	<b>3.38</b>
11	<b>Saudi Arabia</b>	Mtoe	165.89	103.34	0.00	0.00	0.00	0.24	<b>269.47</b>
	Percentage share	%	61.56	38.35	0.00	-	-	0.09	<b>100%</b>
	Per capita consumption	Toe	4.56	2.84	0.00	-	-	0.01	<b>7.40</b>
12	<b>France</b>	Mtoe	67.52	32.94	5.01	63.25	10.02	19.33	<b>198.07</b>
	Percentage share	%	34.09	16.63	2.53	31.93	5.06	9.76	<b>100%</b>
	Per capita consumption	Toe	0.99	0.48	0.07	0.93	0.15	0.28	<b>2.92</b>
13	<b>Indonesia</b>	Mtoe	71.00	31.74	104.53	0.00	6.21	17.66	<b>231.14</b>
	Percentage share	%	30.72	13.73	45.23	-	2.68	7.64	<b>100%</b>
	Per capita consumption	Toe	1.06	0.47	1.56	-	0.09	0.26	<b>3.45</b>
14	<b>United Kingdom</b>	Mtoe	61.95	61.81	5.01	10.26	1.19	32.46	<b>172.69</b>
	Percentage share	%	35.87	35.79	2.90	5.94	0.69	18.80	<b>100%</b>
	Per capita consumption	Toe	0.92	0.92	0.07	0.15	0.02	0.48	<b>2.57</b>
15	<b>Mexico</b>	Mtoe	95.59	83.05	5.97	2.39	8.11	10.74	<b>205.85</b>
	Percentage share	%	46.44	40.35	2.90	1.16	3.94	5.22	<b>100%</b>
	Per capita consumption	Toe	0.35	0.30	0.02	0.01	0.03	0.04	<b>0.75</b>
	<b>Sub total</b>	Mtoe	<b>3028.72</b>	<b>2327.92</b>	<b>3288.54</b>	<b>477.80</b>	<b>666.83</b>	<b>834.61</b>	<b>10624.43</b>
	<b>Others</b>	Mtoe	<b>1395.64</b>	<b>1058.47</b>	<b>565.16</b>	<b>98.09</b>	<b>304.03</b>	<b>243.68</b>	<b>86.80</b>
	<b>Total World</b>	Mtoe	<b>4424.36</b>	<b>3386.40</b>	<b>3853.70</b>	<b>575.89</b>	<b>970.86</b>	<b>1078.28</b>	<b>10537.05</b>
	Percentage share	%	40.56	32.92	36.26	5.73	9.12	9.04	<b>100%</b>
	Per capita consumption	Toe	0.56	0.43	0.48	0.07	0.12	0.14	<b>1.36</b>

**Source:** Energy Institute Statistical Review of World Energy, 2023

**Note:** For calculation of per capita consumption, population figure of India have been taken from table no.11 of 'Report of the Technical Group on Population Projections' and for all other countries & the world from World Bank International Data Base for 2022

Conversion factor used for Oil as per product basket of 1 Mtoe = 0.0431 Exajoules, for all other fuels 1 Mtoe = 0.0419 Exajoules. (Approximate conversion factors from BP Statistical Review of World Energy, 2022)

Mtoe: Million tonnes of oil equivalent, Toe: Tonnes of oil equivalent

## Chapter-2

# Exploration & Crude Oil Production





## Chapter - Highlights

### Exploration & Crude Oil Production

Exploration & Production industry has come a long way in India from the first oil discovery in 1889 near the town of Digboi in the state of Assam to current 26 sedimentary basins in India, covering a total area of 3.4 million square kilometer. The area is spread across on land, shallow water up to 400-meter water depth and Deepwater further up to Exclusive Economic Zone (EEZ).

The Government of India has taken several steps to increase the crude oil & gas production in India through various policy initiatives towards Exploration & Production activities by allocating & awarding Blocks to both National & Private E&P companies.

In this regard, starting from Pre-Independence era (1886 – 1946) to Nomination Basis era where Petroleum Exploration License (PEL) was awarded (1947 – 1990), then Pre NELP era where Petroleum Mining Lease (PML) was awarded (1991 – 1996) then NELP (New Exploration Licensing Policy) era and then HELP (Hydrocarbon Exploration Licensing Policy) era India has taken several policy initiatives to boost domestic Crude Oil & Gas production.

Further to the above exploration policies, MoPNG introduced DSF (Discovered Small Fields) policy in 2016 to monetize the unmonetized/ relinquished discoveries of Nomination and PSC regimes. MoPNG has introduced OLAP (Open Acreage Licensing Policy) under HELP policy in 2016.

The crude oil & gas production in India is mainly attributed to two National E&P companies vis-à-vis ONGC & Oil India Limited and other private E&P companies monitored by DGH under PSC, RSC & DSF regime. During the first half of the fiscal year 2023-24, Indigenous Crude Oil production, including condensate, reached 14.7 million metric tons. ONGC accounted for 62% of the production share, OIL had an 11% share, and PSC contributed 20%.

Table 2.1: World top 30 crude oil proved reserves countries

S.no.	Country	at end 2020		
		Thousand million tonnes	Thousand million barrels	Reserves/Production ratio
1	Venezuela	48.0	303.8	*
2	Saudi Arabia	40.9	297.5	73.6
3	Canada	27.1	168.1	89.4
4	Iran	21.7	157.8	139.8
5	Iraq	19.6	145.0	96.3
6	Russian Federation	14.8	107.8	27.6
7	Kuwait	14.0	101.5	103.2
8	United Arab Emirates	13.0	97.8	73.1
9	US	8.2	68.8	11.4
10	Libya	6.3	48.4	339.2
11	Nigeria	5.0	36.9	56.1
12	Kazakhstan	3.9	30.0	45.3
13	China	3.5	26.0	18.2
14	Qatar	2.6	25.2	38.1
16	Brazil	1.7	11.9	10.8
15	Algeria	1.5	12.2	25.0
18	Angola	1.1	7.8	16.1
17	Norway	1.0	7.9	10.8
19	Azerbaijan	1.0	7.0	26.7
20	Mexico	0.9	6.1	8.7
21	Oman	0.7	5.4	15.4
22	<b>India</b>	<b>0.6</b>	<b>4.5</b>	<b>16.1</b>
23	Vietnam	0.6	4.4	58.1
24	Other Africa	0.5	3.8	33.2
26	South Sudan	0.5	3.5	56.4
27	Egypt	0.4	3.1	14.0
25	Republic of Congo	0.4	2.9	25.7
28	Yemen	0.4	3.0	86.7
29	Malaysia	0.4	2.7	12.5
30	Argentina	0.3	2.5	11.3
	<b>Sub total</b>	<b>240.5</b>	<b>1703.3</b>	
	Others	3.9	29.0	
	<b>Total World</b>	<b>244.4</b>	<b>1732.4</b>	<b>53.5</b>
	of which: OECD	38.3	260.0	25.2
	Non-OECD	206.1	1472.4	66.9
	OPEC	171.8	1214.7	108.3
	Non-OPEC	72.6	517.7	24.5
	European Union	0.3	2.4	16.8
	Canadian oil sands: Total	26.2	161.4	
	of which: Under active development	3.1	18.9	
	Venezuela: Orinoco Belt	42.0	261.8	

Source: Energy Institute Statistical Review of World Energy, 2023. Latest data available for this table is for 2020.

Source of data - The estimates in this table have been compiled using a combination of primary official sources, third-party data from the OPEC Secretariat, World Oil, Oil & Gas Journal and Chinese reserves based on official data and information in the public domain.

Canadian oil sands 'under active development' are an official estimate. Venezuelan Orinoco Belt reserves are based on the OPEC Secretariat and government announcements.

Reserves and R/P ratio for Canada includes Canadian oil sands. Reserves and R/P ratio for Venezuela includes the Orinoco Belt. Saudi Arabia's oil reserves include NGLs from 2017.

Notes: Total proved reserves of oil - Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. The data series for total proved oil reserves does not necessarily meet the definitions, guidelines and practices used for determining proved reserves at company level, for instance as published by the US Securities and Exchange Commission, nor does it necessarily represent the EI's view of proved reserves by country.

Reserves-to-production (R/P) ratio - If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate. Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil. Shares of total and R/P ratios are calculated using thousand million barrels figures.

\*Less than 0.05%.

Figures are for calendar year

**Table 2.2: World top 30 crude oil producing countries, 2022**

S.no.	Country	Production*	
		Million tonnes	Million barrels daily
1	US	759.5	17.8
2	Saudi Arabia	573.1	12.1
3	Russian Federation	548.5	11.2
4	Canada	274.0	5.6
5	Iraq	221.3	4.5
6	China	204.7	4.1
7	United Arab Emirates	181.1	4.0
8	Iran	176.5	3.8
9	Brazil	163.1	3.1
10	Kuwait	145.7	3.0
11	Mexico	97.7	1.9
12	Norway	89.0	1.9
13	Kazakhstan	84.1	1.8
14	Qatar	74.1	1.8
15	Nigeria	69.0	1.5
16	Algeria	63.6	1.5
17	Angola	57.8	1.2
18	Oman	51.4	1.1
19	Libya	51.0	1.1
20	Colombia	39.7	0.8
21	Venezuela	37.3	0.7
22	United Kingdom	36.2	0.8
23	Azerbaijan	33.3	0.7
<b>24</b>	<b>India</b>	<b>33.0</b>	<b>0.7</b>
25	Argentina	32.8	0.7
26	Indonesia	31.4	0.6
27	Egypt	29.9	0.6
28	Ecuador	25.8	0.5
29	Malaysia	25.5	0.6
30	Australia	17.5	0.4
	<b>Sub total</b>	<b>4227.6</b>	<b>90.1</b>
	Others	179.6	3.8
	<b>Total World</b>	<b>4407.2</b>	<b>93.8</b>
	of which: OECD	1331.8	29.5
	Non-OECD	3075.4	64.3
	OPEC	1605.3	34.0
	Non-OPEC	2801.9	59.8
	European Union	16.7	0.3

**Source:** Energy Institute Statistical Review of World Energy, 2023.

\* Includes crude oil, shale oil, oil sands, condensates (lease condensate or gas condensates that require further refining) and NGLs (natural gas liquids - ethane, LPG and naphtha separated from the production of natural gas).

Excludes liquid fuels from other sources such as biofuels and synthetic derivatives of coal and natural gas. This also excludes liquid fuel adjustment factors such as refinery processing gain. Excludes oil shales/kerogen extracted in solid form.

Figures are for calendar year



Table 2.3: World top 30 crude oil consuming countries, 2022

S. no.	Million tonnes	Consumption*	
		Million tonnes	Million barrels daily
1	US	822.7	19.1
2	China	659.2	14.3
<b>3</b>	<b>India</b>	<b>236.9</b>	<b>5.2</b>
4	Saudi Arabia	166.0	3.9
5	Russian Federation	161.5	3.57
6	Japan	151.8	3.34
7	South Korea	123.7	2.86
8	Brazil	116.0	2.51
9	Canada	98.2	2.29
10	Germany	97.3	2.08
11	Mexico	95.4	2.10
12	Iran	84.0	1.91
13	Indonesia	69.7	1.59
14	France	66.9	1.42
15	Singapore	63.0	1.20
16	Spain	62.0	1.27
17	United Kingdom	61.2	1.32
18	Italy	57.2	1.22
19	Thailand	53.8	1.28
20	United Arab Emirates	50.3	1.13
21	Turkey	49.7	1.04
22	Australia	47.3	1.01
23	Western Africa	40.9	0.91
24	Netherlands	40.7	0.89
25	Taiwan	40.2	0.91
26	Malaysia	39.4	0.89
27	Iraq	37.0	0.77
28	Egypt	34.9	0.75
29	Poland	33.6	0.72
30	Argentina	31.9	0.68
	<b>Sub Total</b>	<b>3692.4</b>	<b>82.1</b>
	Others	702.5	15.2
	<b>Total World</b>	<b>4394.9</b>	<b>97.3</b>
	of which: OECD	2014.8	45.1
	Non-OECD	2380.1	52.2
	European Union	510.4	10.8

**Source:** Energy Institute Statistical Review of World Energy, 2023.

\* Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol) and biodiesel are excluded while derivatives of coal and natural gas are included.

**Notes:** Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.

Figures are for calendar year

**Table 2.4: World top 30 crude oil refining capacities\* countries**

(Thousand barrels daily)

S.no..	Country	2012	2022	ADDITION	% CHANGE
1	US	17823	18061	238	1.3
2	China	13681	17259	3578	26.2
3	Russian Federation	5767	6821	1054	18.3
<b>4</b>	<b>India</b>	<b>4279</b>	<b>5045</b>	<b>766</b>	<b>17.9</b>
5	South Korea	2878	3363	485	16.9
6	Saudi Arabia	2107	3312	1205	57.2
7	Japan	4254	3164	(1090)	-25.6
8	Iran	2042	2670	628	30.8
9	Brazil	2004	2304	300	15.0
10	Germany	2097	2121	24	1.1
11	Canada	2015	1954	(61)	-3.0
12	Italy	2098	1794	(304)	-14.5
13	Spain	1546	1591	45	2.9
14	Mexico	1606	1558	(48)	-3.0
15	Venezuela	1303	1303	0	0.0
16	Singapore	1422	1302	(120)	-8.4
17	United Kingdom	1526	1251	(275)	-18.0
18	United Arab Emirates	712	1246	534	75.0
19	Thailand	1230	1244	14	1.1
20	Netherlands	1279	1241	(38)	-3.0
21	France	1513	1140	(373)	-24.7
22	Kuwait	936	1118	182	19.4
23	Indonesia	1099	1104	5	0.5
24	Taiwan	1197	1083	(114)	-9.5
25	Malaysia	606	955	349	57.6
26	Iraq	971	919	(52)	-5.4
27	Egypt	810	825	15	1.9
28	Turkey	596	822	226	37.9
29	Other Africa	1014	731	(283)	-27.9
30	Algeria	652	657	5	0.8
	<b>Sub total</b>	<b>81063</b>	<b>87958</b>	<b>6895</b>	<b>8.5</b>
	<b>Others</b>	<b>14358</b>	<b>13944</b>	<b>(414)</b>	<b>-2.9</b>
	<b>Total World</b>	<b>95421</b>	<b>101902</b>	<b>6481</b>	<b>9.7</b>
	of which: OECD	45376	43416	(1960)	-4.3
	Non-OECD	50045	58486	8441	16.9
	European Union	13143	12210	(933)	-7.1

Source: Energy Institute Statistical Review of World Energy, 2023.

\* Atmospheric distillation capacity at year end on a calendar-day basis.

Figures are for calendar year

**Table 2.5A: State wise Crude Oil Production (Including Condensate) in TMT**

(Thousand metric tonne)

State	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023(P)
Onshore						
Assam	4093	3902	3991	4166	2062	2156
Arunachal Pradesh	56	53	48	47	23	25
Andhra Pradesh	243	195	202	236	116	114
Gujarat	4707	4651	4626	4849	2415	2470
Rajasthan	6653	5891	5885	5074	2679	2322
Tamil Nadu	415	410	367	324	167	141
West Bengal	0.00	0.13	0.05	0.01	0.01	0.00
<b>A. Onshore Total Production</b>	<b>16167</b>	<b>15103</b>	<b>15120</b>	<b>14697</b>	<b>7461</b>	<b>7226</b>
Offshore						
Eastern Offshore	557	744	626	550	252	580
Western Offshore	14857	14236	13604	13552	6844	6676
Gujarat Offshore	589	411	338	379	177	196
<b>B. Offshore Total Production</b>	<b>16003</b>	<b>15391</b>	<b>14569</b>	<b>14482</b>	<b>7273</b>	<b>7451</b>
<b>Total Production (A+B)</b>	<b>32170</b>	<b>30494</b>	<b>29688</b>	<b>29179</b>	<b>14734</b>	<b>14678</b>

Note : Source: ONGC, OIL &amp; DGH

**Table 2.5B : Indigenous crude oil and condensate production**

(Million metric tonne)

Particulars	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022(P)	Apr-Sep 2023(P)
<b>PSU companies</b>						
ONGC	19.2	19.1	18.5	18.4	9.3	9.1
OIL	3.1	2.9	3.0	3.2	1.6	1.6
<b>PSU total</b>	<b>22.4</b>	<b>22.0</b>	<b>21.5</b>	<b>21.6</b>	<b>10.9</b>	<b>10.7</b>
<b>PSC total</b>	<b>8.2</b>	<b>7.1</b>	<b>7.0</b>	<b>6.2</b>	<b>3.2</b>	<b>2.9</b>
<b>Total crude oil</b>	<b>30.5</b>	<b>29.1</b>	<b>28.4</b>	<b>27.8</b>	<b>14.1</b>	<b>13.7</b>
Condensate	1.6	1.4	1.2	1.4	0.6	1.0
<b>Total (crude oil + condensate)</b>	<b>32.2</b>	<b>30.5</b>	<b>29.7</b>	<b>29.2</b>	<b>14.7</b>	<b>14.7</b>
<b>Total (crude oil + condensate) (crore barrels)</b>	<b>23.6</b>	<b>22.4</b>	<b>21.8</b>	<b>21.4</b>	<b>10.8</b>	<b>10.8</b>

Note : Oil companies and DGH

**Table 2.6 : Self sufficiency in petroleum products**

(Million metric tonne)

Particulars	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022(P)	Apr-Sep 2023(P)
<b>i) Indigenous crude oil processing</b>	<b>29.3</b>	<b>28.0</b>	<b>27.0</b>	<b>26.5</b>	<b>13.6</b>	<b>13.3</b>
a) Products from indigeneous crude	27.3	26.1	25.2	24.7	12.7	12.4
b) Products from fractionators	4.8	4.2	4.1	3.5	1.8	1.7
<b>ii) Total production from indigenous crude and condensate (a+b)</b>	<b>32.1</b>	<b>30.3</b>	<b>29.3</b>	<b>28.2</b>	<b>14.5</b>	<b>14.2</b>
<b>iii) Total domestic consumption</b>	<b>214.1</b>	<b>194.3</b>	<b>202.7</b>	<b>223.0</b>	<b>107.4</b>	<b>114.3</b>
<b>Percentage of self sufficiency (ii/iii)</b>	<b>15.0%</b>	<b>15.6%</b>	<b>14.4%</b>	<b>12.6%</b>	<b>13.5%</b>	<b>12.4%</b>

Source: Oil companies (P): Provisional

Note:

1. Production of petroleum products from indigenous crude considered at 93.3% of indigenous crude oil processing.
2. The balance demand of petroleum products is met through import of crude oil and POL products.

**Table 2.7 (A) : Status of blocks under NELP (As on 01.10.2023)**

ROUND	LAUNCH YEAR	OFFERED	AWARDED				RELINQUISHED/ PROPOSED				OPERATIONAL			
			DEEP WATER	SHALLOW WATER	ONLAND	TOTAL	DEEP WATER	SHALLOW WATER	ONLAND	TOTAL	DEEP WATER	SHALLOW WATER	ONLAND	TOTAL
NELP-I	1999	48	7	16	1	24	5	15	1	21	2	1	0	3
NELP-II	2000	25	8	8	7	23	8	8	6	22	0	0	1	1
NELP-III	2002	27	9	6	8	23	9	5	5	19	0	1	3	4
NELP-IV	2003	24	10	0	10	20	10	0	7	17	0	0	3	3
NELP-V	2005	20	6	2	12	20	6	1	9	16	0	1	3	4
NELP-VI	2006	55	21	6	25	52	21	5	20	46	0	1	5	6
NELP-VII	2007	57	11	7	23	41	11	5	20	36	0	2	3	5
NELP-VIII	2009	70	8	11	13	32	8	11	12	31	0	0	1	1
NELP-IX	2010	34	1	3	15	19	1	3	10	14	0	0	5	5
<b>TOTAL</b>		<b>360</b>	<b>81</b>	<b>59</b>	<b>114</b>	<b>254</b>	<b>79</b>	<b>53</b>	<b>90</b>	<b>222</b>	<b>2</b>	<b>6</b>	<b>24</b>	<b>32</b>

Source: DGH

**Table 2.7(B): Status of blocks under OALP round of HELP and DSF Rounds (As on 01.10.2023)**

ROUND	LAUNCH YEAR	OFFERED	AWARDED				RELINQUISHED/ PROPOSED FOR RELINQUISHMENT/NOT SIGNED				OPERATIONAL				PEL Awaited			
			DEEP/ ULTRA DEEP WATER	SHALLOW WATER	ONLAND	TOTAL	DEEP/ ULTRA DEEP WATER	SHALLOW WATER	ONLAND	TOTAL	DEEP/ ULTRA DEEP WATER	SHALLOW WATER	ONLAND	TOTAL	DEEP/ ULTRA DEEP WATER	SHALLOW WATER	ONLAND	TOTAL
<b>OALP</b>																		
OALP Round-I	2018	55	1	8	46	55	0	0	6	6	1	8	40	49	0	0	0	0
OALP Round-II	2019	14	1	5	8	14	0	0	0	0	1	5	7	13	0	0	1	1
OALP Round-III	2019	23	1	3	14	18	0	0	3	3	1	3	9	13	0	0	2	2
OALP Round-IV	2019	7	0	0	7	7	0	0	0	0	0	0	7	7	0	0	0	0
OALP Round-V	2020	11	1	2	8	11	0	0	0	0	1	2	8	11	0	0	0	0
OALP Round-VI	2021	21	2	4	15	21	0	0	0	0	2	4	15	21	0	0		
OALP Round-VII	2021	8	1	2	5	8	0	0	0	0	1	2	4	7	0	0	1	1
<b>OALP Total</b>		<b>139</b>	<b>7</b>	<b>24</b>	<b>103</b>	<b>134</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>24</b>	<b>90</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>
<b>DSF</b>																		
DSF Round-I	2016	46	0	7	23	30	0	4	7	11	0	3	12	15	0	0	4	4
DSF Round-II	2018	25	0	9	15	24	0	1	4	5	0	8	8	16	0	0	3	3
DSF Round-III*	2021	32	1	19	11	31	0	1	0	1	1	17	5	23	0	1	6	7
<b>DSF Total</b>		<b>103</b>	<b>1</b>	<b>35</b>	<b>49</b>	<b>85</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>17</b>	<b>1</b>	<b>28</b>	<b>25</b>	<b>54</b>	<b>0</b>	<b>1</b>	<b>13</b>	<b>14</b>
<b>TOTAL</b>		<b>242</b>	<b>8</b>	<b>59</b>	<b>152</b>	<b>219</b>	<b>0</b>	<b>6</b>	<b>20</b>	<b>26</b>	<b>8</b>	<b>52</b>	<b>115</b>	<b>175</b>	<b>0</b>	<b>1</b>	<b>17</b>	<b>18</b>

Source: DGH

Note: NELP: New Exploration Licensing Policy

HELP: Hydrocarbon Exploration Licensing Policy

OALP: Open Acreage Licensing Policy

DSF: Discovered Small Fields



**Table 2.8 : Domestic oil & gas production vis a vis overseas production**

Year	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022(P)	Apr-Sep 2023(P)
Total domestic production (MMTOE)	63.4	59.2	63.7	31.8	31.9	32.6
<b>Overseas production by Indian Companies (MMTOE)</b>	<b>24.5</b>	<b>21.9</b>	<b>21.8</b>	<b>19.5</b>	<b>9.7</b>	<b>9.9</b>
Overseas production as percentage of domestic production	38.6	37.0	34.3	61.4	30.3	30.4

**Table 2.9 : Coal Bed Methane (CBM) Gas development in India as on 01.10.2023**

Parameter	Value	Unit
Prognosticated CBM resources	91.8	TCF
Established CBM resources	10.4	TCF
CBM Resources (33 Blocks)	62.8	TCF
Total available coal bearing areas (India)	32760	Sq. KM
Total available coal bearing areas with MoPNG/DGH	12254*	Sq. KM
Area awarded**	20,460**	Sq. KM
Blocks awarded*	36	Nos.
Exploration initiated (Area considered if any boreholes were drilled in the awarded block)	10670	Sq. KM
<b>Production of CBM gas</b>	<b>April 2023- September 2023(P)</b>	<b>324.70</b>
		<b>MMSCM</b>

\*\*6437 Sq.km Operational area and 5817 Sq.km offered under SCBM-22 (award under process)

\*\*MoPNG awarded 04 new CBM Blocks (Area 3862 sq. km) under Special CBM Bid Round 2021 in September 2022. \*

Source: DGH

**Table 2.10: Status of Shale Gas and oil development in India ( As on 01.10.2023)**

Policy Guidelines for Exploration & exploitation of Shale gas and oil	Shale gas and oil exploration policy was announced in October, 2013. ONGC and OIL India Ltd have been allotted 50 and 6 blocks respectively for assessment under Phase-I. ONGC identified 50 blocks in 4 basins and OIL identified 6 blocks in 2 basins in Phase-I.				
	Under Hydrocarbon Exploration and Licensing Policy (HELP), 2016, all types of hydrocarbon resources, both Conventional and Unconventional including CBM, shale gas/oil, tight gas and gas hydrates were allowed to be explored and exploited.				
	In August 2018, the Government of India notified a Policy framework for Exploration and exploitation of Unconventional hydrocarbons in existing acreages under existing Production Sharing Contracts (PSC), Coal Bed Methane (CBM) Contracts and Nomination fields.				
<b>Exploration Activities</b>					
	<b>Basin</b>	<b>Phase-I Blocks</b>	<b>MWP* Wells</b>	<b>Blocks Taken up for Drilling</b>	<b>Actual Wells Drilled</b>
<b>Oil and Natural Gas Corporation Limited (ONGC):</b>	Cambay	28	29	16	17
	KG	10	13	6	8
	Cauvery	9	12	1	3
	Assam	3	3	2	2
	<b>Total</b>	<b>50</b>	<b>57</b>	<b>25</b>	<b>30</b>
<b>Oil India Limited (OIL):</b>	Jaisalmer	1	2	1	1
	Assam	5	6	0	3
	<b>Total</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>4</b>
<b>Grand Total</b>		<b>56</b>	<b>65</b>	<b>26</b>	<b>34</b>

\*MWP : Minimum Work Programme



# Chapter-3

# Natural Gas





## Chapter - Highlights

### Natural Gas

1. **Domestic natural gas production:**
  - a. The domestic Gross Production of natural gas for the from April-September 2023 period has shown an increase of ~4% when compared from April-September 2022 i.e., an increase of ~695 MMSCM from 17184 MMSCM in April-September 2022 to 17879 MMSCM in April-September 2023.
  - b. The above rise is mainly due to an increase in production of natural gas from PSC/JVs fields (~ 18.4%) . Whereas natural gas production from ONGC nomination fields have shown declining trend (~-3.2%).
2. **LNG import\*:**
  - a. The LNG Imports in volume terms increased by ~12.7% i.e. from 13680 MMSCM in the period April-September 2022 to 15416 MMSCM in the period April-September 2023. However, the LNG Imports in US \$ terms has shown a decrease of ~ 31.2% i.e. from US \$ 9.43 Billion in the period April-September 2022 to US \$ 6.49 Billion in the period April-September 2023. (\*Data may vary from DGCIS data)
3. **LNG terminals capacity utilization:**
  - a. With the commencement of operations of Dhamra LNG terminal, the total LNG capacity in the country has increased to 47.7 MMTPA (Konkan LNG Terminal only HP stream of capacity of 2.9 MMTPA is commissioned). The utilization of LNG terminal capacity of 47.7 MMTPA in the period April-September 2023 ranged from ~12.5% (Mundra LNG Terminal) Million to ~94.31% (Dahej LNG terminal).
4. **CGD Networks:**
  - a. In terms of infrastructure, in CNG there are 6035 CNG stations in 283 GAs/CNG area being operated by about 57 CGD entities and in PNG there are 11876511 PNG connections (DPNG- 11819955 Nos., Commercial- 39123 Nos, Industrial- 17433) in 216 GAs being operated by about 50 CGD entities.
  - b. In terms of aggregated 6 monthly sales (April-September 2023) , there was an increase of ~6% in CNG sector from the immediate previous six month period (October 2022-March-2023). However, there was a decrease of ~9% DPNG sales, ~4% in Commercial sector sales. Industrial sector sales saw ~11% increase. Total Six-Monthly sales under CGD sector also increased by ~6% when compared to last 6 months CGD sales.
5. **Consumption:**
  - a. From availability perspective: Total Consumption (including for internal use i.e Net Production+ LNG import) showed an increase of ~ 8.1% to 32920 MMSCM (April-September 2023) from 30451 MMSCM (April-September 2022).
  - b. Sectoral Consumption: Major Sectors for NG consumption during April-September 2023 were Fertilizer (31 %) , CGD (20%), Power (15% ) , Refinery (8%) and Petrochem (4 %)
6. Natural Gas Pipeline infrastructure- is an economical and safe mode of transporting natural gas by connecting gas sources to gas consuming markets. Gas pipeline grid determines the structure of the gas market and its development. Therefore, an interconnected National Gas Grid has been envisaged to ensure the adequate availability and equitable distribution of natural gas in all parts of the country. At present (upto June 2023), the Natural Gas pipeline network in the country is about 35,515 Kms (P) km long including Tie-in connectivity, dedicated & Sub Transmission Pipelines (STPL) . In order to make available natural gas across the country, it has been envisaged to develop complete the National Gas Grid and same are at various stages of development. This would ensure easy availability of natural gas across all regions and potentially help to achieve uniform economic and social progress.



Table 3.1 : World top 30 natural gas reserve countries

(Billion cubic metres)

Sl. no.	Country	2020
1	Russian Federation	37392
2	Iran	32101
3	Qatar	24665
4	Turkmenistan	13601
5	US	12619
6	China	8399
7	Venezuela	6260
8	Saudi Arabia	6019
9	United Arab Emirates	5939
10	Nigeria	5473
11	Iraq	3529
12	Azerbaijan	2504
13	Australia	2390
14	Canada	2354
15	Algeria	2279
16	Kazakhstan	2257
17	Egypt	2138
18	Kuwait	1695
19	Other Africa	1569
20	Libya	1430
21	Norway	1429
22	<b>India</b>	<b>1320</b>
23	Indonesia	1252
24	Ukraine	1091
25	Malaysia	908
26	Uzbekistan	845
27	Oman	666
27	Vietnam	646
29	Israel	589
30	Myanmar	432
	<b>Others</b>	<b>388</b>
	<b>Total World</b>	<b>187977</b>
	<b>of which: OECD</b>	<b>20280</b>
	<b>Non-OECD</b>	<b>167795</b>
	<b>European Union</b>	<b>442</b>

Source: Energy Institute Statistical Review of World Energy, 2023. Latest data available for this table is for 2020. Figures are for Calendar year

**Table 3.2 : World top 30 natural gas producing countries**

(Billion cubic metres)

Sl. no.	Country	2022
1	US	979
2	Russian Federation	618
3	Iran	259
4	China	222
5	Canada	185
6	Qatar	178
7	Australia	153
8	Norway	123
9	Saudi Arabia	120
10	Algeria	98
11	Malaysia	82
12	Turkmenistan	78
13	Egypt	65
14	United Arab Emirates	58
15	Indonesia	58
16	Uzbekistan	49
17	Oman	42
18	Argentina	42
19	Mexico	40
20	Nigeria	40
21	United Kingdom	38
22	Azerbaijan	34
<b>23</b>	<b>India</b>	<b>30</b>
24	Venezuela	29
25	Pakistan	29
26	Trinidad & Tobago	26
27	Kazakhstan	26
28	Thailand	26
29	Bangladesh	23
30	Brazil	23
	<b>Sub total</b>	<b>3774</b>
	Others	270
	<b>Total World</b>	<b>4044</b>
	of which: OECD	1589
	Non-OECD	2455
	European Union	41

Source: Energy Institute Statistical Review of World Energy, 2023.

Note: As per Energy Statistics India is at 23th position with Natural Gas Production at 29.8 BCM in calendar year 2022 while as per MoPNG/PPAC Net Natural Gas Production of India (after excluding flare &amp; loss and internal consumption) during 2022 has been 33.36 BCM

Figures are for calendar year

Table 3.3 : World top 30 natural gas consuming countries

(Billion cubic metres)

Sl. no.	Country	2022
1	US	881
2	Russian Federation	408
3	China	376
4	Iran	229
5	Canada	122
6	Saudi Arabia	120
7	Japan	101
8	Mexico	97
9	Germany	77
10	United Kingdom	72
11	United Arab Emirates	70
12	Italy	65
13	South Korea	62
14	Egypt	61
15	<b>India</b>	<b>58</b>
16	Turkey	51
17	Malaysia	49
18	Uzbekistan	48
19	Argentina	46
20	Algeria	44
21	Thailand	44
22	Australia	42
23	France	38
24	Pakistan	38
25	Turkmenistan	38
26	Indonesia	37
27	Qatar	37
28	Spain	33
29	Brazil	32
30	Venezuela	29
	<b>Sub total</b>	<b>3405</b>
	Others	536
	<b>Total World</b>	<b>3942</b>
	of which: OECD	1797
	Non-OECD	2145
	European Union	343

**Source:** Energy Institute Statistical Review of World Energy, 2023. . Totals may not tally due to rounding off.  
 Figures are for Calendar year

**Table 3.4 : Natural gas at a glance**

(MMSCM)

	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022	Apr-Sep 2023(P)
Gross production	31184	28672	34024	34450	17184	17879
Net Production (net of flare and loss)	30257	27784	33131	33664	16771	17504
LNG import	33887	33198	31028	26304	13680	15416
"Total Consumption including internal use (Net Production+ LNG import) "	64144	60982	64159	59968	30451	32920
<b>Total consumption (in BCM)</b>	<b>64.1</b>	<b>61.0</b>	<b>64.2</b>	<b>60.0</b>	<b>30.5</b>	<b>32.9</b>

**Table 3.5 : Natural gas production**

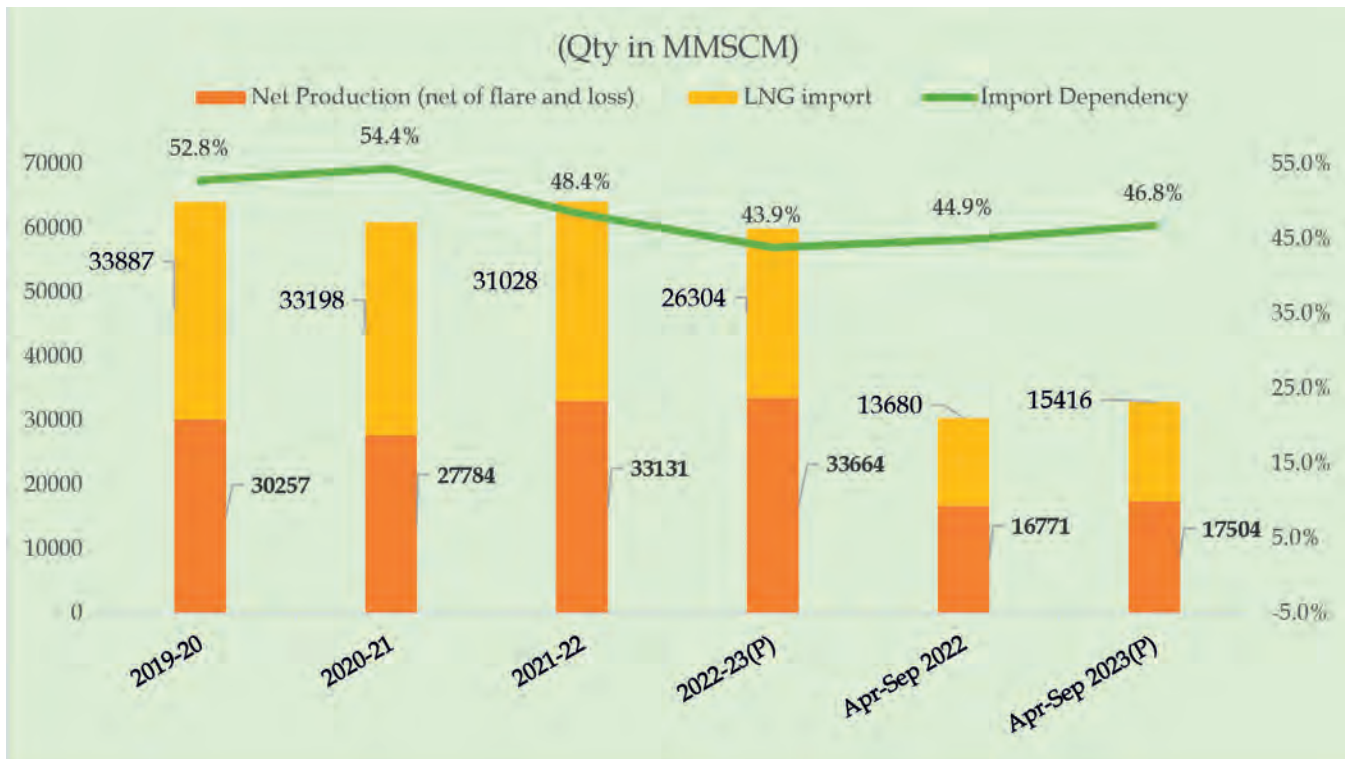
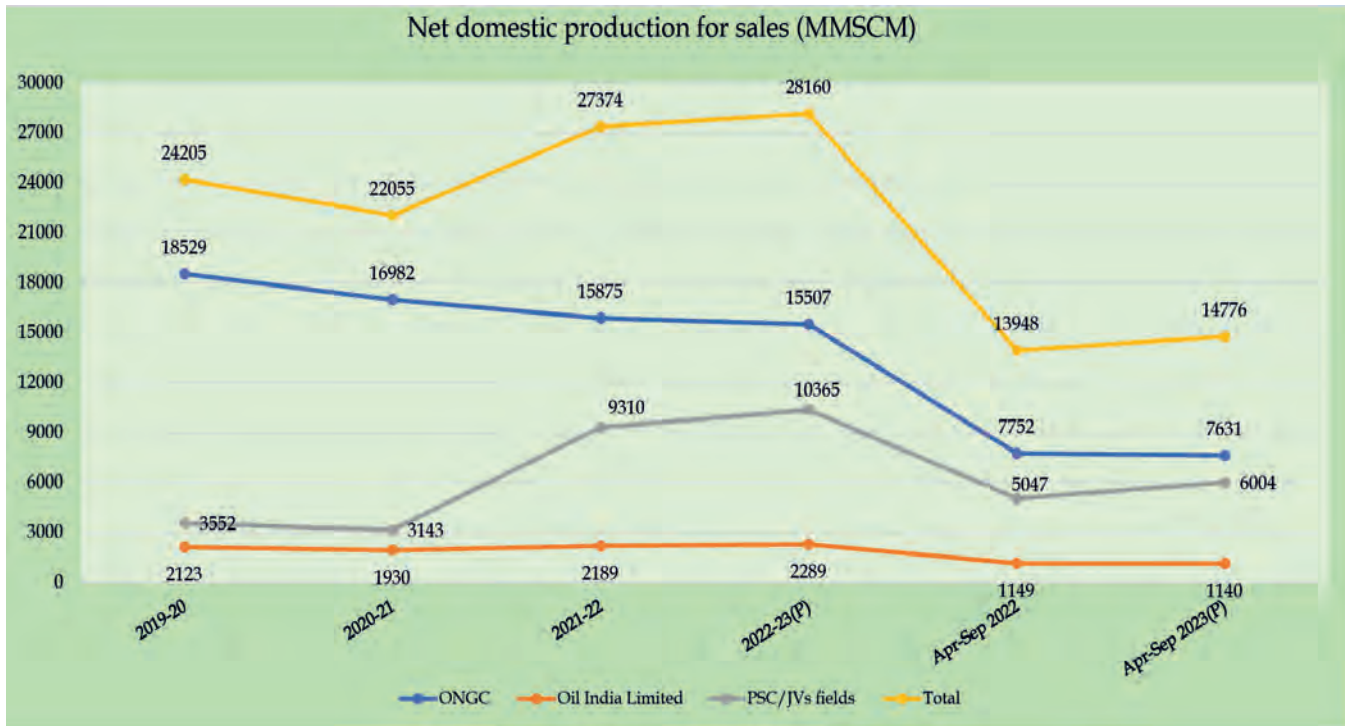
(MMSCM)

	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022	Apr-Sep 2023(P)
<b>ONGC</b>						
A) Gross Production	23746	21872	20629	19969	10076	9751
B) Flared	520	458	515	389	223	149
C) Internal Use	4697	4432	4239	4073	2101	1970
D) Loss	0	0	0	0	0	0
<b>D) =A-B-C Net Production for Sale</b>	<b>18529</b>	<b>16982</b>	<b>15875</b>	<b>15507</b>	<b>7752</b>	<b>7631</b>
<b>Oil India Limited</b>						
A) Gross Production	2668	2480	2893	3041	1527	1517
B) Flared	155	164	200	231	116	122
C) Internal Use	377	371	471	473	240	235
D) Loss	13	14	32	48	22	20
<b>D) =A-B-C Net Production for Sale</b>	<b>2123</b>	<b>1930</b>	<b>2189</b>	<b>2289</b>	<b>1149</b>	<b>1140</b>
<b>PSC/JVs fields</b>						
A) Gross Production	4770	4321	10502	11440	5582	6611
B) Flared	185	199	98	76	30	67
C) Internal Use	978	925	1047	957	482	522
D) Loss	54	53	47	43	22	18
<b>E) =A-B-C-D Net Production for Sale</b>	<b>3552</b>	<b>3143</b>	<b>9310</b>	<b>10365</b>	<b>5047</b>	<b>6004</b>
<b>Grand Total</b>						
A) Gross Production	31184	28672	34024	34450	17184	17879
B) Flared	860	822	813	695	369	337
C) Internal Use	6052	5729	5758	5504	2823	2728
D) Loss	67	67	80	91	44	38
<b>E) =A-B-C-D Net Production for Sale</b>	<b>24205</b>	<b>22055</b>	<b>27374</b>	<b>28160</b>	<b>13948</b>	<b>14776</b>

Source: Domestic Gas Producers / DGH / LNG Importing companies/DGCIS (in some cases DGCIS data is prorated)

Note: LNG import data in Million Metric Tonne (MMT), converted to MMSCM; 1MMT=1325 MMSCMBCM: Billion Cubic Meter; MMSCMD: Million Standard Cubic Meter per Day

BCM: Billion Cubic Meter; MMSCMD: Million Standard Cubic Meter per Day



**Table 3.5A: State wise Natural Gas Production in MMSCM**

State	Onshore/ CBM/ Offshore	FY	Gross Production	Net Production
Andhra Pradesh	A	2019-20	912	874
		2020-21	827	783
		2021-22	809	767
		2022-23(P)	710	680
		April-Sep-22	369	354
		April-Sep-23(P)	341	328
Assam & Arunachal Pradesh		2019-20	3187	2942
		2020-21	3051	2815
		2021-22	3429	3136
		2022-23(P)	3611	3274
		April-Sep-22	1811	1643
		April-Sep-23(P)	1733	1566
Gujarat		2019-20	1342	1287
		2020-21	1138	1059
		2021-22	1017	969
		2022-23(P)	923	882
		April-Sep-22	475	452
		April-Sep-23(P)	450	434
Rajasthan	2019-20	1883	1772	
	2020-21	2040	1938	
	2021-22	2619	2541	
	2022-23(P)	2340	2289	
	April-Sep-22	1152	1125	
	April-Sep-23(P)	1170	1143	
Tamil Nadu	2019-20	1097	1051	
	2020-21	911	857	
	2021-22	1067	1043	
	2022-23(P)	1109	1078	
	April-Sep-22	584	573	
	April-Sep-23(P)	558	539	
Tripura	2019-20	1473	1472	
	2020-21	1634	1634	
	2021-22	1531	1530	
	2022-23(P)	1675	1675	
	April-Sep-22	801	801	
	April-Sep-23(P)	790	790	
Jharkhand (CBM)	B. CBM	2019-20	5	5
		2020-21	2	2
		2021-22	4	4
		2022-23(P)	10	9
		April-Sep-22	4	4
		April-Sep-23(P)	4	3
Madhya Pradesh (CBM)	2019-20	345	344	
	2020-21	334	333	
	2021-22	389	365	

Table 3.5A Continued

State	Onshore/ CBM/ Offshore	FY	Gross Production	Net Production
West Bengal (CBM)	B. CBM	2022-23(P)	264	263
		April-Sep-22	137	136
		April-Sep-23(P)	119	119
		2019-20	306	277
		2020-21	307	250
		2021-22	290	290
		2022-23(P)	399	387
		April-Sep-22	201	195
		April-Sep-23(P)	202	196
Onshore Total	A+B	2019-20	10549	10025
		2020-21	10243	9670
		2021-22	11155	10646
		2022-23(P)	11042	10439
		April-Sep-22	5535	5282
		April-Sep-23(P)	5366	5118
Mumbai High + Eastern Offshore	C	2019-20	18576	18226
		2020-21	17086	16810
		2021-22	15943	15581
		2022-23(P)	15325	15065
		April-Sep-22	7729	7578
		April-Sep-23(P)	7518	7418
Private / JVCs	C	2019-20	2059	2006
		2020-21	1343	1303
		2021-22	6926	6904
		2022-23(P)	8084	8063
		April-Sep-22	3920	3911
		April-Sep-23(P)	4995	4967
Offshore Total	C	2019-20	20635	20232
		2020-21	18429	18113
		2021-22	22869	22485
		2022-23(P)	23409	23128
		April-Sep-22	11649	11489
		April-Sep-23(P)	12513	12385
Grand Total	A+B+C	2019-20	31184	30257
		2020-21	28672	27784
		2021-22	34024	33131
		2022-23(P)	34450	33567
		April-Sep-22	17184	16771
		April-Sep-23(P)	17879	17503

Source: ONGC, OIL and DGH (Pvt./JVs)

**Table No. 3.6 : PNG data as on 01.10.2023 (P)**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial
Andhra Pradesh	Anantapur and YSR (Kadapa) Districts	AGP City Gas Private Limited	10030	2	0
	East Godavari District (EAAA)	Godavari Gas Private Limited	49809	8	1
	Kakinada	Bhagyanagar Gas Limited	64613	163	3
	Krishna District (EAAA)	Megha City Gas Distribution Private Limited	24287	171	28
	Sri Potti Sriramulu Nellore District	AGP City Gas Private Limited	1540	1	1
	Srikakulam, Visakhapatnam & Vizianagaram Districts	Indian Oil Corporation Limited	4578	0	0
	Vijaywada	Bhagyanagar Gas Limited	57461	93	1
	West Godavari District	Godavari Gas Private Limited	51115	12	2
	<b>Andhra Pradesh Total</b>		<b>263433</b>	<b>450</b>	<b>36</b>
Andhra Pradesh, Karnataka & Tamil Nadu	Chittoor, Kolar and Vellore Districts	AGP City Gas Private Limited	3311	1	5
	<b>Andhra Pradesh, Karnataka &amp; Tamil Nadu Total</b>		<b>3311</b>	<b>1</b>	<b>5</b>
Assam	Cachar, Hailakandi & Karimganj Districts	Purba Bharati Gas Private Limited	681	0	0
	Upper Assam	Assam Gas Company Limited	52426	1375	450
<b>Assam Total</b>			<b>53107</b>	<b>1375</b>	<b>450</b>
Bihar	Araria, Purnia, Katihar and Kishanganj Districts	Indian Oil Corporation Limited	3605	0	0
	Arwal, Jehanabad, Bhojpur and Buxar Districts	Indian Oil Corporation Limited	9010	14	1
	Aurangabad, Kaimur & Rohtas Districts	Indian Oil Corporation Limited	3251	10	0
	Begusarai District	Think Gas Begusarai Private Limited	7126	11	1
	Gaya & Nalanda Districts	Indian-Oil Adani Gas Private Limited	4	0	0
	Khagaria, Saharsa and Madhepura Districts	Indian Oil Corporation Limited	927	0	0
	Lakhisarai, Munger and Bhagalpur Districts	Indian Oil Corporation Limited	7226	1	0
	Muzaffarpur, Vaishali, Saran and Samastipur Districts	Indian Oil Corporation Limited	23212	1	0
	Patna District	GAIL (India) Limited	59539	58	2
	<b>Bihar Total</b>		<b>113900</b>	<b>95</b>	<b>4</b>
Bihar & Jharkhand	Sheikhpura, Jamui and Deoghar Districts	Indian Oil Corporation Limited	6195	2	0
	Nawada and Koderma Districts	Indian Oil Corporation Limited	1463	0	0
	<b>Bihar &amp; Jharkhand Total</b>		<b>7658</b>	<b>2</b>	<b>0</b>
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	Chandigarh	Indian-Oil Adani Gas Private Limited	26224	142	31
	<b>Chandigarh (UT), Haryana, Punjab &amp; Himachal Pradesh Total</b>		<b>26224</b>	<b>142</b>	<b>31</b>
Dadra & Nagar Haveli (UT)	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	11563	55	60
	<b>Dadra &amp; Nagar Haveli (UT) Total</b>		<b>11563</b>	<b>55</b>	<b>60</b>
Daman & Diu (UT)	UT of Daman	Indian-Oil Adani Gas Private Limited	5169	58	45
	<b>Daman &amp; Diu (UT) Total</b>		<b>5169</b>	<b>58</b>	<b>45</b>
Daman and Diu & Gujarat	Diu & Gir Somnath Districts	IRM Energy Private Limited	3325	15	0
	<b>Daman and Diu &amp; Gujarat Total</b>		<b>3325</b>	<b>15</b>	<b>0</b>
Goa	North Goa District	Goa Natural Gas Private Limited	10561	19	26
	South Goa District	Indian-Oil Adani Gas Private Limited	865	1	8
	<b>Goa Total</b>		<b>11426</b>	<b>20</b>	<b>34</b>



Table 3.6 Continued

State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial	
Gujarat	Ahmedabad City and Daskroi Area	Adani Total Gas Limited	585725	3542	852	
	Ahmedabad District (EAAA)	Gujarat Gas Limited	12487	1	8	
	Amreli District	Gujarat Gas Limited	11274	51	1	
	Anand area including Kanjari & Vadtal Villages (in Kheda District)	Charotar Gas Sahakari Mandali Limited	47409	735	166	
	Anand District (EAAA)	Gujarat Gas Limited	43252	397	30	
	Banaskantha District	IRM Energy Private Limited	47965	209	13	
	Bhavnagar	Gujarat Gas Limited	66111	433	87	
	Dahej Vagra Taluka	Gujarat Gas Limited	1511	16	54	
	Dahod District	Gujarat Gas Limited	9498	28	28	
	Gandhinagar Mehsana Sabarkantha	Sabarmati Gas Limited	261823	1118	423	
	Gandhinagar###	Gujarat Gas Limited	155368	478	23	
	Hazira	Gujarat Gas Limited	40186	141	22	
	Jamnagar	Gujarat Gas Limited	48520	221	134	
	Junagadh District	Torrent Gas Private Limited	5510	24	0	
	Kheda District (EAAA) & Mahisagar District	Adani Total Gas Limited	668	3	0	
	Kutch (West)	Gujarat Gas Limited	9490	59	6	
	Nadiad	Gujarat Gas Limited	74136	515	29	
	Narmada (Rajpipla) District	Gujarat Gas Limited	2833	4	0	
	Navsari	Gujarat Gas Limited	116991	269	48	
	Navsari District (EAAA), Surat District (EAAA), Tapi District (EAAA) & the Dangas District	Adani Total Gas Limited	229	1	0	
	Panchmahal District	Gujarat Gas Limited	23731	153	90	
	Patan District	Sabarmati Gas Limited	19619	62	9	
	Rajkot	Gujarat Gas Limited	351347	1214	1488	
	Surat, Bharuch, Ankleshwar	Gujarat Gas Limited	799697	9477	1047	
	Surendranagar	Gujarat Gas Limited	30570	335	366	
	Vadodara	Vadodara Gas Limited	233788	2868	29	
Vadodara**	Adani Total Gas Limited	616	1	84		
Valsad	Gujarat Gas Limited	128059	435	721		
<b>Gujarat Total</b>			<b>3128413</b>	<b>22790</b>	<b>5758</b>	
Haryana	Ambala & Kurukshetra Districts	HPOIL Gas Private Limited	44164	40	4	
	Bhiwani, Charkhi Dadri & Mahendragarh Districts	Adani Total Gas Limited	96	0	0	
	Faridabad-2	Adani Total Gas Limited	107708	435	688	
	Gurugram(IGL)***	Indraprastha Gas Limited	20447	118	53	
	Gurugram-2	Haryana City Gas Distribution Limited	32025	192	539	
	Jhajjar District	Haryana City Gas (KCE) Private Limited	24	0	124	
	Kaithal District	Indraprastha Gas Limited	27620	0	1	
	Karnal District	Indraprastha Gas Limited	17665	18	54	
	Nuh and Palwal Distircts	Adani Total Gas Limited	21695	15	73	
	Panipat District	Indian-Oil Adani Gas Private Limited	17259	17	55	
	Rewari District	Indraprastha Gas Limited	16909	64	168	
	Rohtak District	Bharat Petroleum Corporation Limited	8696	0	1	
	Sonipat	GAIL Gas Limited	29926	35	234	
	Sonipat District (EAAA) & Jind District	Hindustan Petroleum Corporation Limited	6729	3	15	
	Yamunanagar District	Bharat Petroleum Corporation Limited	11771	0	1	
	<b>Haryana Total</b>			<b>362734</b>	<b>937</b>	<b>2010</b>
	Haryana & Himachal Pradesh	Panchkula District (EAAA), Sirmaur, Shimla & Solan (EAAA) Districts	Indian-Oil Adani Gas Private Limited	10	0	0
<b>Haryana &amp; Himachal Pradesh Total</b>			<b>10</b>	<b>0</b>	<b>0</b>	
Haryana & Punjab	Sirsa, Fatehabad and Mansa (Punjab) Districts	Gujarat Gas Limited	553	0	0	
<b>Haryana &amp; Punjab Total</b>			<b>553</b>	<b>0</b>	<b>0</b>	
Himachal Pradesh	Bilaspur, Hamirpur & Una Districts	Bharat Petroleum Corporation Limited	6559	8	0	
<b>Himachal Pradesh Total</b>			<b>6559</b>	<b>8</b>	<b>0</b>	

**Table 3.6 Continued**

State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial
<b>Jharkhand</b>	Bokaro, Hazaribagh & Ramgarh Districts	Indian Oil Corporation Limited	8489	7	0
	Chatra and Palamu Districts	Bharat Petroleum Corporation Limited	2380	0	0
	East Singhbhum District	GAIL (India) Limited	32251	5	0
	Giridih & Dhanbad Districts	GAIL Gas Limited	12042	0	1
	Ranchi District	GAIL (India) Limited	46195	2	0
	Seraikela-Kharsawan District	GAIL Gas Limited	13058	0	1
	West Singhbhum District	GAIL Gas Limited	125	0	0
	<b>Jharkhand Total</b>		<b>114540</b>	<b>14</b>	<b>2</b>
<b>Karnataka</b>	Bagalkot, Koppal and Raichur Districts	AGP City Gas Private Limited	2520	0	0
	Ballari & Gadag Districts	Bharat Petroleum Corporation Limited	10819	0	0
	Belgaum District	Megha City Gas Distribution Private Limited	28421	140	39
	Bengaluru Rural and Urban Districts	GAIL Gas Limited	253236	213	174
	Bidar District	Bharat Petroleum Corporation Limited	4696	0	0
	Chitradurga & Davanagere Districts	Unison Enviro Private Limited	3419	0	0
	Dakshina Kannada District*	GAIL Gas Limited	28990	13	13
	Dharwad District	Indian-Oil Adani Gas Private Limited	20007	15	8
	Kalaburagi and Vijayapura Districts	AGP City Gas Private Limited	105	0	0
	Mysuru, Mandya and Chamarajanagar Districts	AGP City Gas Private Limited	761	2	24
	Ramanagara District	Maharashtra Natural Gas Limited	25326	3	16
	Tumkur District	Megha City Gas Distribution Private Limited	30454	163	62
		<b>Karnataka Total</b>		<b>408754</b>	<b>549</b>
<b>Kerala</b>	Alapuzha, Kollam and Thiruvananthapuram Districts	AGP City Gas Private Limited	9311	7	4
	Ernakulam District	Indian-Oil Adani Gas Private Limited	41973	19	13
	Kozhikode & Wayanad Districts	Indian-Oil Adani Gas Private Limited	367	1	0
	Malappuram District	Indian-Oil Adani Gas Private Limited	287	0	0
	Palakkad & Thrissur Districts	Indian-Oil Adani Gas Private Limited	280	0	1
	<b>Kerala Total</b>		<b>52218</b>	<b>27</b>	<b>18</b>
<b>Kerala &amp; Puducherry</b>	Kannur, Kasaragod & Mahe Districts	Indian-Oil Adani Gas Private Limited	446	0	0
	<b>Kerala &amp; Puducherry Total</b>		<b>446</b>	<b>0</b>	<b>0</b>
<b>Madhya Pradesh</b>	Ashoknagar District	Indian Oil Corporation Limited	1012	0	0
	Bhopal & Rajgarh Districts	Think Gas Bhopal Private Limited	34265	51	12
	Dewas	GAIL Gas Limited	19398	29	32
	Dhar District	Naveriya Gas Private Limited	1409	20	5
	Guna District	Indian Oil Corporation Limited	1012	0	0
	Gwalior	Aavantika Gas Limited	49782	65	17
	Indore (including Ujjain City)	Aavantika Gas Limited	94237	226	404
	Morena District	Indian Oil Corporation Limited	2299	0	0
	Raisen, Shajapur and Sehore Districts	GAIL Gas Limited	3596	3	5
	Rewa District	Indian Oil Corporation Limited	2220	4	0
	Satna & Shandol Districts	Bharat Petroleum Corporation Limited	3264	0	0
	Shivpuri District	Think Gas Bhopal Private Limited	3124	2	0
	Sidhi and Singrauli Districts	Bharat Petroleum Corporation Limited	2209	0	0
	Ujjain (EAAA) District, Dewas (EAAA) District and Indore (EAAA) District	Gujarat Gas Limited	776	0	0
	<b>Madhya Pradesh Total</b>		<b>218603</b>	<b>400</b>	<b>475</b>
<b>Madhya Pradesh and Rajasthan</b>	Jhabua, Banswara, Ratlam and Dungarpur Districts	Gujarat Gas Limited	586	0	0
	<b>Madhya Pradesh and Rajasthan Total</b>		<b>586</b>	<b>0</b>	<b>0</b>

Table 3.6 Continued

State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial
Madhya Pradesh and Uttar Pradesh	Jhansi (EAAA) District, Bhind, Jalaun, Lalitpur and Datia Districts	Adani Total Gas Limited	0	0	2
	<b>Madhya Pradesh and Uttar Pradesh Total</b>		<b>0</b>	<b>0</b>	<b>2</b>
Maharashtra	Ahmednagar & Aurangabad Districts	Bharat Petroleum Corporation Limited	94368	8	2
	Kolhapur District	HPOIL Gas Private Limited	42780	4	20
	Latur & Osmanabad Districts	Unison Enviro Private Limited	2013	1	0
	Mumbai & Greater Mumbai	Mahanagar Gas Limited	1171850	3224	121
	Palghar District & Thane Rural	Gujarat Gas Limited	49401	27	98
	Pune City including Pimpri - Chichwad & adjoining contigeneous areas Hinjewadi, Chakan, Talegaon	Maharashtra Natural Gas Limited	540638	438	286
	Pune District (EAAA)	Torrent Gas Pune Limited	12015	11	46
	Raigarh District (EAAA)	Mahanagar Gas Limited	70654	3	7
	Ratnagiri District	Unison Enviro Private Limited	11135	8	45
	Sangli & Satara Districts	Bharat Petroleum Corporation Limited	40675	0	1
	Sindhudurg District	Maharashtra Natural Gas Limited	5160	1	0
	Solapur District	IMC Limited	19801	0	3
	Thane urban and adjoining Municipalities	Mahanagar Gas Limited	1011749	983	301
	<b>Maharashtra Total</b>		<b>3072239</b>	<b>4708</b>	<b>930</b>
Maharashtra & Gujarat	Valsad (EAAA), Dhule & Nashik Districts	Maharashtra Natural Gas Limited	187645	8	28
	<b>Maharashtra &amp; Gujarat Total</b>		<b>187645</b>	<b>8</b>	<b>28</b>
National Capital Territory of Delhi (UT)	National Capital Territory of Delhi	Indraprastha Gas Limited	1473969	3726	1846
	<b>National Capital Territory of Delhi (UT) Total</b>		<b>1473969</b>	<b>3726</b>	<b>1846</b>
Odisha	Angul & Dhekanal Districts	Bharat Petroleum Corporation Limited	2320	0	0
	Bargarh, Debagarh & Sambalpur Districts	Bharat Petroleum Corporation Limited	4246	0	0
	Cuttack District	GAIL (India) Limited	21469	2	0
	Ganjam, Nayagarh & Puri Districts	GAIL Gas Limited	5913	0	0
	Jagatsinghpur & Kendrapara Districts	Bharat Petroleum Corporation Limited	3583	0	0
	Jajpur & Kendujhar Districts	Bharat Petroleum Corporation Limited	3014	0	0
	Khordha District	GAIL (India) Limited	45892	4	0
	Sundargarh & Jharsuguda Districts	GAIL Gas Limited	7339	0	0
	<b>Odisha Total</b>		<b>93776</b>	<b>6</b>	<b>0</b>
Puducherry & Tamil Nadu	Karaikal & Nagapattinam Districts	Torrent Gas Private Limited	233	0	0
	<b>Puducherry &amp; Tamil Nadu Total</b>		<b>233</b>	<b>0</b>	<b>0</b>
Punjab	Amritsar District	Gujarat Gas Limited	26434	290	12
	Bhatinda District	Gujarat Gas Limited	4628	13	0
	Fatehgarh Sahib District	IRM Energy Private Limited	5982	61	175
	Ferozepur, Faridkot and Sri Muksar Sahib Districts	Gujarat Gas Limited	408	1	0
	Hoshiarpur and Gurdaspur Districts	Gujarat Gas Limited	1960	1	0
	Jalandhar District (EAAA), Kapurthala & SBS Nagar Districts	Think Gas Ludhiana Private Limited	13251	29	19
	Ludhiana District (EAAA), Barnala & Moga Districts	Think Gas Ludhiana Private Limited	12030	41	48
	Rupnagar District	Bharat Petroleum Corporation Limited	8073	4	0
	SAS Nagar District (EAAA), Patiala & Sangrur Districts	Torrent Gas Private Limited	3924	31	18
	<b>Punjab Total</b>		<b>76690</b>	<b>471</b>	<b>272</b>

**Table 3.6 Continued**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial
<b>Rajasthan</b>	Ajmer, Pali and Rajsamand Districts	Indraprastha Gas Limited	148304	4	0
	Alwar (Other than Bhiwadi) & Jaipur Districts	Torrent Gas Jaipur Private Limited	1018	4	18
	Barmer, Jaisalmer & Jodhpur Districts	AGP CGD India Private Limited	50474	58	63
	Bhilwara & Bundi Districts	Adani Total Gas Limited	860	4	3
	Bhiwadi (in Alwar District)	Haryana City Gas Distribution (Bhiwadi) Limited	5129	3	219
	Chittorgarh (Other than Rawatbhata Taluka) & Udaipur Districts	Adani Total Gas Limited	36	0	0
	Dholpur District	Dholpur CGD Private Limited	283	1	0
	Jalore and Sirohi Districts	Gujarat Gas Limited	4889	12	0
	Kota	Rajasthan State Gas Limited	24279	49	1285
	Kota District (EAAA), Baran & Chittorgarh (Only Rawatbhata Taluka) Districts	Torrent Gas Private Limited	1103	8	1
	<b>Rajasthan Total</b>		<b>236375</b>	<b>143</b>	<b>1589</b>
<b>Tamil Nadu</b>	Chennai & Tiruvallur Districts	Torrent Gas Chennai Private Limited	107	1	1
	Coimbatore District	Indian Oil Corporation Limited	5261	0	0
	Kanchipuram District	AGP CGD India Private Limited	2381	2	9
	Ramanathapuram District	AGP CGD India Private Limited	1596	0	0
	Salem District	Indian Oil Corporation Limited	1039	0	0
	<b>Tamil Nadu Total</b>		<b>10384</b>	<b>3</b>	<b>10</b>
<b>Telangana</b>	Bhadradri Kothagudem & Khamman Districts	Megha City Gas Distribution Private Limited	1271	0	0
	Hyderabad	Bhagyanagar Gas Limited	178336	75	77
	Jagtial, Peddapalli, Karimnagar & Rajanna Sircilla Districts	Indian Oil Corporation Limited	254	0	0
	Jangaon, Jayashankar Bhupalpally, Mahabubabad, Warangal Urban & Warangal Rural Districts	Megha City Gas Distribution Private Limited	3002	2	0
	Medak, Siddipet & Sangareddy Districts	Torrent Gas Private Limited	2352	2	20
	Medchal-Malkajgiri, Ranga Reddy & Vikarabad Districts	Megha City Gas Distribution Private Limited	4706	4	6
	Nalgonda Suryapet & Yadadri Bhuvanagiri Districts	Megha City Gas Distribution Private Limited	4598	12	3
		<b>Telangana Total</b>		<b>194519</b>	<b>95</b>
<b>Tripura</b>	Agartala	Tripura Natural Gas Company Limited	45968	500	62
	Gomati District	Tripura Natural Gas Company Limited	496	0	0
	West Tripura (EAAA) District	Tripura Natural Gas Company Limited	13745	6	0
	<b>Tripura Total</b>		<b>60209</b>	<b>506</b>	<b>62</b>
<b>Uttar Pradesh</b>	Agra	Green Gas Limited	116067	61	17
	Allahabad	Indian-Oil Adani Gas Private Limited	15954	69	11
	Allahabad District (EAAA), Bhadohi & Kaushambi Districts	Indian-Oil Adani Gas Private Limited	1860	4	0
	Amethi, Pratapgarh & Raebareli Districts	Bharat Petroleum Corporation Limited	3640	0	0
	Auraiya, Kanpur Dehat & Etawah Districts	Torrent Gas Private Limited	5198	14	8
	Azamgarh, Mau and Ballia Districts	Torrent Gas Private Limited	3791	6	1
	Bagpat District	Bagpat Green Energy Private Limited	5275	8	13
	Bareilly	Central UP Gas Limited	52938	160	28
	Bareilly (EAAA) District, Pilibhit and Rampur Districts	Hindustan Petroleum Corporation Limited	10404	0	0
	Basti and Ambedkarnagar Districts	Torrent Gas Private Limited	2072	1	1

Table 3.6 Continued

State/Union Territory	Geographical Area/CGD Networks	Authorized CGD Entity	Domestic	Commercial	Industrial
	Bulandshahr (part) District	Indian-Oil Adani Gas Private Limited	1095	1	28
	Bulandshahr District (EAAA), Aligarh & Hathras Districts	Indian-Oil Adani Gas Private Limited	248	0	0
	Faizabad & Sultanpur Districts	Green Gas Limited	1258	0	0
	Farrukhabad, Etah and Hardoi Districts	Hindustan Petroleum Corporation Limited	11622	0	0
	Ghaziabad & Hapur Districts	Indraprastha Gas Limited	323145	466	606
	Gonda and Barabanki Districts	Torrent Gas Private Limited	2599	3	5
	Gorakhpur, Sant Kabir Nagar & Kushinagar Districts	Torrent Gas Private Limited	4317	9	6
	Jaunpur and Ghazipur Districts	Indian-Oil Adani Gas Private Limited	1276	1	0
	Jhansi	Central UP Gas Limited	16662	1	0
	Kanpur	Central UP Gas Limited	118995	339	101
	Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Indraprastha Gas Limited	30808	2	2
	Khurja	Adani Total Gas Limited	14485	24	248
	Lucknow	Green Gas Limited	105541	57	11
	Mainpuri and Kannauj Districts	Hindustan Petroleum Corporation Limited	8190	0	0
	Mathura	Sanwariya Gas Limited	7603	34	96
	Meerut	GAIL Gas Limited	53598	55	68
	Meerut District (EAAA), Muzaffarnagar & Shamli Districts	Indraprastha Gas Limited	34343	33	4
	Mirzapur, Chandauli and Sonbhadra Districts	GAIL Gas Limited	6409	0	0
	Moradabad	Torrent Gas Moradabad Limited	25136	51	171
	Moradabad (EAAA) District	Torrent Gas Private Limited	1189	4	8
	Noida (including Greater Noida)	Indraprastha Gas Limited	343749	933	1443
	Saharanpur District	Bharat Petroleum Corporation Limited	29884	1	0
	Shahjahanpur and Budaun Districts	Hindustan Petroleum Corporation Limited	25208	0	0
	Unnao (EAAA) District	Green Gas Limited	241	0	0
	Varanasi District	GAIL (India) Limited	68876	61	13
	<b>Uttar Pradesh Total</b>		<b>1464380</b>	<b>2398</b>	<b>2889</b>
<b>Uttar Pradesh &amp; Rajasthan</b>	Firozabad (Taj Trapezium Zone)	GAIL Gas Limited	19116	45	346
	<b>Uttar Pradesh &amp; Rajasthan Total</b>		<b>19116</b>	<b>45</b>	<b>346</b>
<b>Uttar Pradesh and Uttrakhand</b>	Bijnor and Nainital Districts	Hindustan Petroleum Corporation Limited	12089	0	0
	<b>Uttar Pradesh and Uttrakhand Total</b>		<b>12089</b>	<b>0</b>	<b>0</b>
<b>Uttarakhand</b>	Dehradun District	GAIL Gas Limited	29144	0	0
	Haridwar District	Haridwar Natural Gas Limited	24725	28	14
	Udham Singh Nagar District	Indian-Oil Adani Gas Private Limited	17200	45	74
	<b>Uttarakhand Total</b>		<b>71069</b>	<b>73</b>	<b>88</b>
<b>West Bengal</b>	Burdwan District	Indian-Oil Adani Gas Private Limited	885	3	1
	Nadia (EAAA) District and North 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	403	0	0
	Howrah (EAAA) District and Hoogly (EAAA) District	Hindustan Petroleum Corporation Limited	335	0	0
	<b>West Bengal Total</b>		<b>1623</b>	<b>3</b>	<b>1</b>
	<b>Grand Total</b>		<b>11819955</b>	<b>39123</b>	<b>17433</b>

Note : EAAA stands for Excluding/Except Area Already Authorized ; \* stands for the data not provided by the CGD Entity ; # stands for authorization was cancelled by PNGRB, however, authorization has been reinstated based on court order ; ## stands for NOC issued ; \*\* stands for Sub-judice ; \*\*\* stands for under examination for authorization

Disclaimer: While every care has been taken to provide the accurate data as per submissions by the authorized entities, PNGRB/PPAC shall not be held responsible for any loss, damage etc. due to action taken by any one based on information collated by PNGRB/PPAC

**Table 3.7: CNG Sales in India**

(Sales in TMT) #

State (s) / Union Territory	Company name	No. of companies (as on 01.04.2023)	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022	Apr-Sep 2023(P)
Andhra Pradesh	AGP City Gas Private Limited, Godavari Gas Private Limited, Bhagyanagar Gas Limited, Megha City Gas Distribution Pvt Ltd, Indian Oil Corporation Ltd.	5	21	13	33	48	23	19
Andhrapradesh, Karnataka & Tamil Nadu	AGP City Gas Private Limited	1	0	0	0.1	2.5	1	2
Assam	Adani Total Gas Limited, Purba Bharati Gas private Ltd	2	0.02	0.05	0.06	0.5	0.05	0.45
Bihar	Indian Oil Corporation Ltd., THINK Gas Begusarai Private Limited, BPCL, Indian-Oil Adani Gas Private Limited, GAIL INDIA LTD	5	2	5	15	38	17	27
Chandigarh, Haryana, Punjab & Himachal Pradesh	Indian-Oil Adani Gas Private Limited	1	21	14	25	35	18	19
Chhattisgarh	Adani Total Gas Limited, BPCL	2						0
Dadra & Nagar Haveli**	Gujarat Gas Limited	1	3	2	3	3.2	2	2
Daman and Diu	Indian Oil-Adani Gas Private Limited	1	2	1.37	3	2.2	1	1
Delhi NCT***	Indraprastha Gas Limited	1	1033	785	1015	1210	607	599
Goa	Goa Natural Gas Pvt Ltd , Indian-Oil Adani Gas Private Limited	2	0.03	0.15	1.05	2.9	1	3
Gujarat **	Adani Total Gas Limited, Charotar Gas Sahakari Mandlii Ltd, Gujarat Gas Limited, HPCL, IRM Energy Limited, Sabarmati Gas Ltd., Torrent Gas Private Limited, Vadodara Gas Limited	8	745	649	945	1084	537	555
Gujarat & UT of Daman and Diu	IRM Energy Limited	1	0.07	1.36	3.82	5.7	3	3
Haryana	HPOIL Gas Private Limited, Adani Total Gas Limited, Indraprastha Gas Ltd, Haryana City Gas Distribution Limited, HCG (KCE) Private Limited, HPCL, Indian-Oil Adani Gas Private Limited, BPCL, GAIL Gas Limited	9	197	173	303	428	212	232
Haryana & Himachal Pradesh	Indian Oil-Adani Gas Private Limited	1	0	0.08	0.7	1.2	1	1
Haryana & Punjab	Gujarat Gas Limited	1	0	1.4	5	6.7	3	3
Himachal Pradesh	Bharat Petroleum Corporation Limited	1	0	0	0.2	0.4	0.16	0.30
Jharkhand	Adani Total Gas Limited, BPCL, GAIL Gas Limited, GAIL INDIA LTD, Indian Oil Corporation Ltd.	5	0.34	1.2	4	10	4	7
Karnataka	AGP City Gas Private Limited, Megha City Gas Distribution Pvt Ltd, GAIL Gas Limited, BPCL, Unison Envior Private Limited, Indian-Oil Adani Gas Private Limited, Maharashtra Natural Gas Limited, Adani Total Gas Limited	8	1	3	15	56	23	48
Kerala	AGP City Gas Private Limited, Indian Oil-Adani Gas Private Limited	2	6	4	12	28	13	19
Kerala & Puducherry	Indian Oil-Adani Gas Private Limited	1	0	0	0.2	1.5	0.5	2
Madhya Pradesh	Aavantika Gas Limited, GAIL Gas Limited, Naveriya Gas Pvt. Ltd., THINK Gas Bhopal Private Limited, Adani Total Gas Limited, BPCL, Indian Oil Corporation Ltd., Rajasthan State Gas Limited, Gujarat Gas Limited, Megha City Gas Distribution Pvt Ltd	10	34	24	45	76	36	45
Madhya Pradesh & Rajasthan	Gujarat Gas Limited, Megha City Gas Distribution Pvt Ltd	2	0	0.26	3	5.5	3	4
Madhya Pradesh and Chhattisgrah	Adani Total Gas Limited	1	0	0	0	0.01	0.002	0.02

Table 3.7 Continued

State (s) / Union Territory	Company name	No. of companies (as on 01.04.2023)	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022	Apr-Sep 2023(P)
Maharashtra	Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Torrent Gas Private Limited, Gujarat Gas Limited, BPCL, HPOIL Gas Private Limited, Unison Envior Private Limited, IMC Limited, Adani Total Gas Limited, HCG Nagpur Private Limited, Indian Oil Corporation Ltd.	11	738	504	812	1022	518	547
Maharashtra & Gujarat	Maharashtra Natural Gas Limited	1	0	1.4	5.6	19	9	11
Maharashtra and Madhya Pradesh	Adani Total Gas Limited	1						0.31
Odisha	Adani Total Gas Limited, GAIL (India) Limited, GAIL Gas Limited	3	3	2	4	6.9	3	5
Puducherry (UT) & Tamil Nadu	Torrent Gas Private Limited	1	0	0.001	0.04	0.18	0.07	0.14
Puducherry (UT)	East Coast Natural Gas Private Limited	1	0	0.000	0.00	0.01		0.05
Punjab	IRM Energy Limited, THINK Gas Ludhiana Private Limited, Torrent Gas Private Limited, Gujarat Gas Limited, Indian Oil Corporation Ltd., BPCL, Megha City Gas Distribution Pvt Ltd	7	7	14	43	61	30	32
Punjab and Rajasthan	BPCL	1						0.04
Rajasthan	*Adani Total Gas Limited, AGP City Gas Private Limited, Dholpur CGD Private Limited, Gujarat Gas Limited, Indraprastha Gas Limited, Rajasthan State Gas Limited, Torrent Gas Jaipur Private Limited, Torrent Gas Private Limited, Haryana City Gas Distribution (Bhiwadi) Limited, Indian Oil Corporation Limited*	10	9	15	47	94	43	63
Tamil Nadu	Torrent Gas Chennai Private Limited, Indian Oil Corporation Ltd., Adani Total Gas Limited, Megha City Gas Distribution Pvt Ltd, AGP CGD India Private Limited, IRM Energy Limited, BPCL	7	0	0.004	2	23	8	24
Telangana*	Torrent Gas Private Limited, Megha City Gas Distribution Pvt Ltd, Bhagyanagar Gas Limited, Indian Oil Corporation Ltd., Maharashtra Natural Gas Limited	5	13	9	33	68	29	29
Telangana & Karnataka	Megha City Gas Distribution Private Limited	1	0	0	0	0.16		0.45
Tripura	Tripura Natural Gas Company Limited	1	16	18	20	24	12	13
Uttar Pradesh	Adani Total Gas Limited, Bagpat Green Energy Private Limited, BPCL, Central U.P. Gas Limited, GAIL Gas Limited, GAIL INDIA LTD, Green Gas Limited, HPCL, Indian-Oil Adani Gas Private Limited, Indraprastha Gas Ltd, Megha City Gas Distribution Pvt Ltd, Torrent Gas Private Limited, Sanwariya Gas Limited, Torrent Gas Moradabad Limited	14	392	339	545	670	325	367
Uttar Pradesh & Uttarakhand	Hindustan Petroleum Corporation Limited	1	0	0.359	2	3.5	1	3
Uttar Pradesh & Madhya Pradesh	Adani Total Gas Limited	1	0.001	0.402	8	4.9	2	4
Uttar Pradesh & Rajasthan	Gail Gas Limited	1	0	0	0	36	18	19
Uttarakhand	GAIL Gas Limited, Haridwar Natural Gas Private Limited, Indian Oil-Adani Gas Private Limited,	3	1	5	12	18	10	10
West Bengal	Indian-Oil Adani Gas Private Limited, Bengal Gas Company Limited, BPCL, HPCL, Indian Oil Corporation Ltd.	5	2	2	4	6.5	3	5
<b>Total</b>			<b>3247</b>	<b>2589</b>	<b>3968</b>	<b>5103</b>	<b>2517</b>	<b>2722</b>

Source : CGD companies (# Data subject to change based on inputs provided by CGD entities)

Notes: From the FY 2019-20 entries for

\* Andhra Pradesh & Telangana are reported separately. Prior to this AP & Telangana were taken together.

\*\* Dadra & Nagar Haveli are reported separately from Gujarat State

\*\*\* Delhi contains information for Delhi NCT only. Remaining entries of the NCR GAs are added into respective State.

**Table No. 3.8 : CNG stations as on 01.10.2023 (P)**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
Andhra Pradesh	Anantapur and YSR (Kadapa) Districts	AGP City Gas Private Limited	22
	East Godavari District (EAAA)	Godavari Gas Private Limited	16
	Kakinada	Bhagyanagar Gas Limited	13
	Krishna District (EAAA)	Megha City Gas Distribution Private Limited	30
	Kurnool, Guntur, and Prakasam districts	Indian Oil Corporation Limited	6
	Sri Potti Sriramulu Nellore District	AGP City Gas Private Limited	17
	Srikakulam, Visakhapatnam & Vizianagaram Districts	Indian Oil Corporation Limited	14
	Vijaywada	Bhagyanagar Gas Limited	34
	West Godavari District	Godavari Gas Private Limited	16
<b>Andhra Pradesh Total</b>			<b>168</b>
Andhra Pradesh, Karnataka & Tamil Nadu	Chittoor, Kolar and Vellore Districts	AGP City Gas Private Limited	41
<b>Andhra Pradesh, Karnataka &amp; Tamil Nadu Total</b>			<b>41</b>
Assam	Baksa, Barpeta, Bongaigaon, Chirang, Nalbari and Bajali districts	Adani Total Gas Limited	1
	Kamrup & Kamrup Metropolitan Districts	Purba Bharati Gas Private Limited	2
	Kokrajhar, Dhubri, South Salmara-Mankachar and Goalpara districts	Adani Total Gas Limited	1
	Nagaon, Morigaon, Hojai, Karbi Anglong, West Karbi Anglong and Dima Hasao districts	Adani Total Gas Limited	2
	Upper Assam	Assam Gas Company Limited	1
<b>Assam Total</b>			<b>7</b>
Bihar	Araria, Purnia, Katihar and Kishanganj Districts	Indian Oil Corporation Limited	1
	Arwal, Jehanabad, Bhojpur and Buxar Districts	Indian Oil Corporation Limited	8
	Aurangabad, Kaimur & Rohtas Districts	Indian Oil Corporation Limited	9
	Begusarai District	Think Gas Begusarai Private Limited	9
	Darbhanga, Madhubani, Supaul, Sitamarhi and Sheohar districts	Bharat Petroleum Corporation Limited	9
	Gaya & Nalanda Districts	Indian-Oil Adani Gas Private Limited	11
	Khagaria, Saharsa and Madhepura Districts	Indian Oil Corporation Limited	1
	Lakhisarai, Munger and Bhagalpur Districts	Indian Oil Corporation Limited	5
	Muzaffarpur, Vaishali, Saran and Samastipur Districts	Indian Oil Corporation Limited	33
	Patna District	GAIL (India) Limited	25
<b>Bihar Total</b>			<b>111</b>
Bihar & Jharkhand	Sheikhpura, Jamui and Deoghar Districts	Indian Oil Corporation Limited	1
	Nawada and Koderma Districts	Indian Oil Corporation Limited	5
<b>Bihar &amp; Jharkhand Total</b>			<b>6</b>
Bihar & Uttar Pradesh	Gopalganj, Siwan, West Champaran, East Champaran and Deoria districts	Bharat Petroleum Corporation Limited	14
<b>Bihar &amp; Uttar Pradesh Total</b>			<b>14</b>
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	Chandigarh	Indian-Oil Adani Gas Private Limited	26
<b>Chandigarh (UT), Haryana, Punjab &amp; Himachal Pradesh Total</b>			<b>26</b>



Table 3.8 Continued

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
Chhattisgarh	Jashpur, Raigarh, Janjgir-Champa and Mahasamund districts	Adani Total Gas Limited	3
	Kabirdham, Raj Nandgaon and Kanker districts	Adani Total Gas Limited	3
	Koriya, Surajpur, Balrampur and Surguja districts	Bharat Petroleum Corporation Limited	2
	Mungeli, Bemetara, Durg, Balod and Dhamtari districts	Adani Total Gas Limited	2
<b>Chhattisgarh Total I</b>			<b>10</b>
Dadra & Nagar Haveli (UT)	UT of Dadra & Nagar Haveli	Gujarat Gas Limited	7
<b>Dadra &amp; Nagar Haveli (UT) Total</b>			<b>7</b>
Daman & Diu (UT)	UT of Daman	Indian-Oil Adani Gas Private Limited	5
<b>Daman &amp; Diu (UT) Total</b>			<b>5</b>
Daman and Diu & Gujarat	Diu & Gir Somnath Districts	IRM Energy Private Limited	15
<b>Daman and Diu &amp; Gujarat Total</b>			<b>15</b>
Goa	North Goa District	Goa Natural Gas Private Limited	7
	South Goa District	Indian-Oil Adani Gas Private Limited	5
<b>Goa Total</b>			<b>12</b>
Gujarat	Ahmedabad City (Only for CNG)##	Hindustan Petroleum Corporation Limited	22
	Ahmedabad City and Daskroi Area	Adani Total Gas Limited	84
	Ahmedabad District (EAAA)	Gujarat Gas Limited	10
	Amreli District	Gujarat Gas Limited	15
	Anand area including Kanjari & Vadtal Villages (in Kheda District)	Charotar Gas Sahakari Mandali Limited	13
	Anand District (EAAA)	Gujarat Gas Limited	30
	Banaskantha District	IRM Energy Private Limited	40
	Barwala & Ranpur Talukas	Adani Total Gas Limited	5
	Bhavnagar	Gujarat Gas Limited	39
	Dahej Vagra Taluka	Gujarat Gas Limited	5
	Dahod District	Gujarat Gas Limited	17
	Gandhinagar Mehsana Sabarkantha	Sabarmati Gas Limited	136
	Gandhinagar###	Gujarat Gas Limited	16
	Hazira	Gujarat Gas Limited	1
	Jamnagar	Gujarat Gas Limited	30
	Junagadh District	Torrent Gas Private Limited	17
	Kheda District (EAAA) & Mahisagar District	Adani Total Gas Limited	24
	Kutch (West)	Gujarat Gas Limited	19
	Nadiad	Gujarat Gas Limited	40
	Narmada (Rajpipla) District	Gujarat Gas Limited	9
	Navsari	Gujarat Gas Limited	27
	Navsari District (EAAA), Surat District (EAAA), Tapi District (EAAA) & the Dangs District	Adani Total Gas Limited	12
	Panchmahal District	Gujarat Gas Limited	32
	Patan District	Sabarmati Gas Limited	25
	Porbandar District	Adani Total Gas Limited	9
	Rajkot	Gujarat Gas Limited	90
	Surat, Bharuch, Ankleshwar	Gujarat Gas Limited	118
	Surendranagar	Gujarat Gas Limited	30
Surendranagar District (EAAA) & Morbi District (EAAA)	Adani Total Gas Limited	13	

**Table 3.8 Continued**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
	Vadodara	Vadodara Gas Limited	39
	Vadodara **	Adani Total Gas Limited	6
	Valsad	Gujarat Gas Limited	26
<b>Gujarat Total</b>			<b>999</b>
Haryana	Ambala & Kurukshetra Districts	HPOIL Gas Private Limited	20
	Bhiwani, Charkhi Dadri & Mahendragarh Districts	Adani Total Gas Limited	38
	Faridabad-2	Adani Total Gas Limited	29
	Gurugram(IGL)***	Indraprastha Gas Limited	21
	Gurugram-2	Haryana City Gas Distribution Limited	33
	Hisar District	HCG (KCE) Private Limited	6
	Jhajjar District	Haryana City Gas (KCE) Private Limited	11
	Kaithal District	Indraprastha Gas Limited	12
	Karnal District	Indraprastha Gas Limited	22
	Nuh and Palwal Distircts	Adani Total Gas Limited	32
	Panipat District	Indian-Oil Adani Gas Private Limited	15
	Rewari District	Indraprastha Gas Limited	34
	Rohtak District	Bharat Petroleum Corporation Limited	14
	Sonipat	GAIL Gas Limited	26
Sonipat District (EAAA) & Jind District	Hindustan Petroleum Corporation Limited	32	
Yamunanagar District	Bharat Petroleum Corporation Limited	12	
<b>Haryana Total</b>			<b>357</b>
<b>Haryana &amp; Himachal Pradesh</b>	Panchkula District (EAAA), Sirmaur, Shimla & Solan (EAAA) Districts	Indian-Oil Adani Gas Private Limited	10
<b>Haryana &amp; Himachal Pradesh Total</b>			<b>10</b>
<b>Haryana &amp; Punjab</b>	Sirsa, Fatehabad and Mansa (Punjab) Districts	Gujarat Gas Limited	26
<b>Haryana &amp; Punjab Total</b>			<b>26</b>
Himachal Pradesh	Bilaspur, Hamirpur & Una Districts	Bharat Petroleum Corporation Limited	10
<b>Himachal Pradesh Total</b>			<b>10</b>
Jharkhand	Bokaro, Hazaribagh & Ramgarh Districts	Indian Oil Corporation Limited	22
	Chatra and Palamu Districts	Bharat Petroleum Corporation Limited	6
	East Singhbhum District	GAIL (India) Limited	12
	Giridih & Dhanbad Districts	GAIL Gas Limited	9
	Gumla, Latehar, Lohardaga, Simdega, Garhwa and Khunti districts	<b>Adani Total Gas Limited</b>	6
	Ranchi District	GAIL (India) Limited	15
	Seraikela-Kharsawan District	GAIL Gas Limited	12
	West Singhbhum District	GAIL Gas Limited	1
<b>Jharkhand Total</b>			<b>83</b>
Karnataka	Bengaluru Rural and Urban Districts	GAIL Gas Limited	102
	Tumkur District	Megha City Gas Distribution Private Limited	6
	Dakshina Kannada District*	GAIL Gas Limited	29
	Belgaum District	Megha City Gas Distribution Private Limited	9
	Ramanagara District	Maharashtra Natural Gas Limited	13
	Dharwad District	Indian-Oil Adani Gas Private Limited	8
	Ballari & Gadag Districts	Bharat Petroleum Corporation Limited	22
	Bidar District	Bharat Petroleum Corporation Limited	10

Table 3.8 Continued

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
	Chitradurga & Davanagere Districts	Unison Enviro Private Limited	15
	Bagalkot, Koppal and Raichur Districts	AGP City Gas Private Limited	25
	Mysuru, Mandya and Chamarajanagar Districts	AGP City Gas Private Limited	24
	Kalaburagi and Vijayapura Districts	AGP City Gas Private Limited	16
	Uttara Kannada, Haveri and Shivamogga Districts	AGP City Gas Private Limited	23
	Chikkamagaluru, Hassan and Kodagu Districts	AGP City Gas Private Limited	18
	Udupi District	Adani Total Gas Limited	8
	Chikkaballapur district	Megha City Gas Distribution Private Limited	2
<b>Karnataka Total</b>			<b>330</b>
Kerala	Alapuzha, Kollam and Thiruvananthapuram Districts	AGP City Gas Private Limited	34
	Ernakulam District	Indian-Oil Adani Gas Private Limited	14
	Kozhikode & Wayanad Districts	Indian-Oil Adani Gas Private Limited	18
	Malappuram District	Indian-Oil Adani Gas Private Limited	16
	Palakkad & Thrissur Districts	Indian-Oil Adani Gas Private Limited	33
<b>Kerala Total</b>			<b>115</b>
Kerala & Puducherry	Kannur, Kasaragod & Mahe Districts	Indian-Oil Adani Gas Private Limited	9
<b>Kerala &amp; Puducherry Total</b>			<b>9</b>
Madhya Pradesh	Ashoknagar District	Indian Oil Corporation Limited	2
	Betul, Chhindwara, Seoni and Balaghat districts	Megha City Gas Distribution Private Limited	1
	Bhopal & Rajgarh Districts	Think Gas Bhopal Private Limited	35
	Burhanpur, Khandwa, Khargone and Harda districts	Adani Total Gas Limited	8
	Damoh, Jabalpur, Katni, Mandla, Umaria and Dindori districts	Megha City Gas Distribution Private Limited	2
	Dewas	GAIL Gas Limited	5
	Dhar District	Naveriya Gas Private Limited	4
	Guna District	Indian Oil Corporation Limited	5
	Gwalior	Aavantika Gas Limited	30
	Gwalior (EAAA) District and Sheopur District	Rajasthan State Gas Limited	3
	Hoshangabad, Narsinghpur, Sagar and Vidisha districts	Megha City Gas Distribution Private Limited	2
	Indore (including Ujjain City)	Aavantika Gas Limited	70
	Morena District	Indian Oil Corporation Limited	6
	Raisen, Shajapur and Sehore Districts	GAIL Gas Limited	21
	Rewa District	Indian Oil Corporation Limited	6
	Satna & Shandol Districts	Bharat Petroleum Corporation Limited	15
	Shivpuri District	Think Gas Bhopal Private Limited	6
	Sidhi and Singrauli Districts	Bharat Petroleum Corporation Limited	6
	Tikamgarh, Niwari, Chattarpur and Panna districts	Adani Total Gas Limited	4
Ujjain (EAAA) District, Dewas (EAAA) District and Indore (EAAA) District	Gujarat Gas Limited	23	
<b>Madhya Pradesh Total</b>			<b>254</b>
Madhya Pradesh and Chhattisgrah	Anuppur, Bilaspur and Korba Districts	Adani Total Gas Limited	7
<b>Madhya Pradesh and Chhattisgrah Total</b>			<b>7</b>
Madhya Pradesh and Rajasthan	Agar Malwa, Neemuch, Mandsaur and Jhalawar districts	Megha City Gas Distribution Private Limited	2
	Jhabua, Banswara, Ratlam and Dungarpur Districts	Gujarat Gas Limited	30
<b>Madhya Pradesh and Rajasthan Total</b>			<b>32</b>



**Table 3.8 Continued**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
Madhya Pradesh and Uttar Pradesh	Jhansi (EAAA) District, Bhind, Jalaun, Lalitpur and Datia Districts	Adani Total Gas Limited	16
<b>Madhya Pradesh and Uttar Pradesh Total</b>			<b>16</b>
Maharashtra	Ahmednagar & Aurangabad Districts	Bharat Petroleum Corporation Limited	94
	Akola, Hingoli and Washim districts	Adani Total Gas Limited	9
	Amravati and Yavatmal districts	Adani Total Gas Limited	7
	Beed, Jalgaon and Jalna districts	Indian Oil Corporation Limited	2
	Bhandara, Gondiya and Garchiroli districts	Adani Total Gas Limited	10
	Buldana, Nanded and Parbhani districts	Maharashtra Natural Gas Limited	9
	Kolhapur District	HPOIL Gas Private Limited	22
	Latur & Osmanabad Districts	Unison Enviro Private Limited	17
	Mumbai & Greater Mumbai	Mahanagar Gas Limited	153
	Nagpur district	HCG Nagpur Private Limited	3
	Palghar District & Thane Rural	Gujarat Gas Limited	33
	Pune City including Pimpri - Chichwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon	Maharashtra Natural Gas Limited	110
	Pune District (EAAA)	Torrent Gas Pune Limited	57
	Raigarh District (EAAA)	Mahanagar Gas Limited	32
	Ratnagiri District	Unison Enviro Private Limited	20
	Sangli & Satara Districts	Bharat Petroleum Corporation Limited	51
	Sindhudurg District	Maharashtra Natural Gas Limited	9
	Solapur District	IMC Limited	15
Thane urban and adjoining Municipalities	Mahanagar Gas Limited	142	
<b>Maharashtra Total</b>			<b>795</b>
Maharashtra & Gujarat	Valsad (EAAA), Dhule & Nashik Districts	Maharashtra Natural Gas Limited	60
<b>Maharashtra &amp; Gujarat Total</b>			<b>60</b>
Maharashtra and Madhya Pradesh	Alirajpur, Nandurbar and Barwani districts	Adani Total Gas Limited	13
<b>Maharashtra and Madhya Pradesh Total</b>			<b>13</b>
National Capital Territory of Delhi (UT)	National Capital Territory of Delhi	Indraprastha Gas Limited	481
<b>National Capital Territory of Delhi (UT) Total</b>			<b>481</b>
Odisha	Angul & Dhekanal Districts	Bharat Petroleum Corporation Limited	5
	Balasore, Bhadrak & Mayurbhanj Districts	Adani Total Gas Limited	9
	Bargarh, Debagarh & Sambalpur Districts	Bharat Petroleum Corporation Limited	12
	Cuttack District	GAIL (India) Limited	9
	Ganjam, Nayagarh & Puri Districts	GAIL Gas Limited	6
	Jagatsinghpur & Kendrapara Districts	Bharat Petroleum Corporation Limited	2
	Jajpur & Kendujhar Districts	Bharat Petroleum Corporation Limited	7
	Khordha District	GAIL (India) Limited	14
	Koraput, Malkangiri, and Nabarangpur districts	Adani Total Gas Limited	2
	Sundargarh & Jharsuguda Districts	GAIL Gas Limited	4
<b>Odisha Total</b>			<b>70</b>
Puducherry	Puducherry District	East Coast Natural Gas Private Limited	2
<b>Puducherry Total</b>			<b>2</b>
Puducherry & Tamil Nadu	Karaikal & Nagapattinam Districts	Torrent Gas Private Limited	8
<b>Puducherry &amp; Tamil Nadu Total</b>			<b>8</b>

Table 3.8 Continued

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
Punjab	Amritsar District	Gujarat Gas Limited	19
	Bhatinda District	Gujarat Gas Limited	19
	Fatehgarh Sahib District	IRM Energy Private Limited	10
	Ferozpur, Faridkot and Sri Muktsar Sahib Districts	Gujarat Gas Limited	27
	Hoshiarpur and Gurdaspur Districts	Gujarat Gas Limited	40
	Jalandhar District (EAAA), Kapurthala & SBS Nagar Districts	Think Gas Ludhiana Private Limited	18
	Jalandhar*	Jay Madhok Energy Private Limited led Consortium	3
	Ludhiana District (EAAA), Barnala & Moga Districts	Think Gas Ludhiana Private Limited	22
	Ludhiana*	Jay Madhok Energy Private Limited led Consortium	3
	Pathankot district	Indian Oil Corporation Limited	2
	Rupnagar District	Bharat Petroleum Corporation Limited	19
	SAS Nagar District (EAAA), Patiala & Sangrur Districts	Torrent Gas Private Limited	26
	Tarn Taran district	Megha City Gas Distribution Private Limited	3
<b>Punjab Total</b>			<b>211</b>
Punjab & Rajasthan	Fazilka (except area already authorized), Ganganagar and Hanumangarh districts	Bharat Petroleum Corporation Limited	12
<b>Punjab &amp; Rajasthan Total</b>			<b>12</b>
Rajasthan	Ajmer, Pali and Rajsamand Districts	Indraprastha Gas Limited	56
	Alwar (Other than Bhiwadi) & Jaipur Districts	Torrent Gas Jaipur Private Limited	47
	Barmer, Jaisalmer & Jodhpur Districts	AGP CGD India Private Limited	36
	Bhilwara & Bundi Districts	Adani Total Gas Limited	17
	Bhiwadi (in Alwar District)	Haryana City Gas Distribution (Bhiwadi) Limited	3
	Bikaner and Churu districts	Gasonet Services (RJ) Limited	1
	Chittorgarh (Other than Rawatbhata Taluka) & Udaipur Districts	Adani Total Gas Limited	37
	Dholpur District	Dholpur CGD Private Limited	8
	Jalore and Sirohi Districts	Gujarat Gas Limited	28
	Jhunjhunu, Sikar and Nagaur districts	Indian Oil Corporation Limited	5
	Kota	Rajasthan State Gas Limited	9
	Kota District (EAAA), Baran & Chittorgarh (Only Rawatbhata Taluka) Districts	Torrent Gas Private Limited	15
<b>Rajasthan Total</b>			<b>262</b>
Tamil Nadu	Ariyalur and Perambalur districts	Megha City Gas Distribution Private Limited	2
	Chennai & Tiruvallur Districts	Torrent Gas Chennai Private Limited	67
	Coimbatore District	Indian Oil Corporation Limited	25
	Cuddalore, Nagapattinam & Tiruvarur Districts	Adani Total Gas Limited	23
	Dharmapuri and Krishnagiri districts	Indian Oil Corporation Limited	7
	Dindigul and Karur districts	Megha City Gas Distribution Private Limited	2
	Kanchipuram District	AGP CGD India Private Limited	32
	Kanyakumari, Thoothukudi, Tirunelveli Kattabo and Tenkasi districts	Indian Oil Corporation Limited	6
	Madurai, Theni and Virudhnagar districts	Indian Oil Corporation Limited	8
	Namakkal and Tiruchirappalli districts	IRM Energy Private Limited	5
	Pudukottai, Sivaganga and Thanjavur districts	Megha City Gas Distribution Private Limited	2

**Table 3.8 Continued**

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
	Ramanathapuram District	AGP CGD India Private Limited	6
	Salem District	Indian Oil Corporation Limited	15
	The Nilgiris and Erode districts	Bharat Petroleum Corporation Limited	6
	Tiruppur District	Adani Total Gas Limited	34
	Tiruvannamalai, Villupuram and Kallakurichi districts	Megha City Gas Distribution Private Limited	3
<b>Tamil Nadu Total</b>			<b>243</b>
Telangana	Bhadradi Kothagudem & Khamman Districts	Megha City Gas Distribution Private Limited	6
	Hyderabad	Bhagyanagar Gas Limited	88
	Jagtial, Peddapalli, Karimnagar & Rajanna Sircilla Districts	Indian Oil Corporation Limited	4
	Jangaon, Jayashankar Bhupalpally, Mahabubabad, Warangal Urban & Warangal Rural Districts	Megha City Gas Distribution Private Limited	7
	Medak, Siddipet & Sangareddy Districts	Torrent Gas Private Limited	17
	Medchal-Malkajgiri, Ranga Reddy & Vikarabad Districts	Megha City Gas Distribution Private Limited	18
	Nalgonda Suryapet & Yadadri Bhuvanagiri Districts	Megha City Gas Distribution Private Limited	15
	Nizamabad, Adilabad, Nirmal, Mancheril Kumuram Bheem Asifabad and Kamareddy districts	Maharashtra Natural Gas Limited	6
<b>Telangana Total</b>			<b>161</b>
Telangana and Karnataka	Jogulamba Gadwal, Nagarkurnool, Mahabubnagar, Narayanpet, Wanaparthy and Yadgir districts	Megha City Gas Distribution Private Limited	4
<b>Telangana and Karnataka Total</b>			<b>4</b>
Tripura	Agartala	Tripura Natural Gas Company Limited	6
	Gomati District	Tripura Natural Gas Company Limited	6
	West Tripura (EAAA) District	Tripura Natural Gas Company Limited	6
<b>Tripura Total</b>			<b>18</b>
Uttar Pradesh	Agra	Green Gas Limited	29
	Allahabad	Indian-Oil Adani Gas Private Limited	7
	Allahabad District (EAAA), Bhadohi & Kaushambi Districts	Indian-Oil Adani Gas Private Limited	15
	Amethi, Pratapgarh & Raebareli Districts	Bharat Petroleum Corporation Limited	27
	Amroha (except area already authorized) & Sambhal (except area already authorized) districts	Megha City Gas Distribution Private Limited	6
	Auraiya, Kanpur Dehat & Etawah Districts	Torrent Gas Private Limited	29
	Azamgarh, Mau and Ballia Districts	Torrent Gas Private Limited	22
	Bagpat District	Bagpat Green Energy Private Limited	13
	Banda, Chitrakoot and Mahoba	Indraprastha Gas Limited	2
	Bareilly	Central UP Gas Limited	21
	Bareilly (EAAA) District, Pilibhit and Rampur Districts	Hindustan Petroleum Corporation Limited	43
	Basti and Ambedkarnagar Districts	Torrent Gas Private Limited	13
	Bulandshahr (part) District	Indian-Oil Adani Gas Private Limited	14
	Bulandshahr District (EAAA), Aligarh & Hathras Districts	Indian-Oil Adani Gas Private Limited	19
	Faizabad & Sultanpur Districts	Green Gas Limited	9
	Farrukhabad, Etah and Hardoi Districts	Hindustan Petroleum Corporation Limited	37
	Ghaziabad & Hapur Districts	Indraprastha Gas Limited	67
	Gonda and Barabanki Districts	Torrent Gas Private Limited	22
	Gorakhpur, Sant Kabir Nagar & Kushinagar Districts	Torrent Gas Private Limited	27
	Jaunpur and Ghazipur Districts	Indian-Oil Adani Gas Private Limited	12

Table 3.8 Continued

State/Union Territory	Geographical Area/ CGD Networks	Authorized CGD Entity	CNG (Cumulative)
Uttar Pradesh	Jhansi	Central UP Gas Limited	8
	Kanpur	Central UP Gas Limited	52
	Kanpur (EAAA) District, Fatehpur and Hamirpur Districts	Indraprastha Gas Limited	21
	Kasganj district	Megha City Gas Distribution Private Limited	3
	Khurja	Adani Total Gas Limited	8
	Lakhimpur Kheri, Sitapur, Bahraich, Shrawasti, Balrampur, Siddharth Nagar & Maharajganj districts	Bharat Petroleum Corporation Limited	27
	Lucknow	<b>Green Gas Limited</b>	44
	Mainpuri and Kannauj Districts	Hindustan Petroleum Corporation Limited	21
	Mathura	Sanwariya Gas Limited	11
	Meerut	GAIL Gas Limited	19
	Meerut District (EAAA), Muzaffarnagar & Shamli Districts	Indraprastha Gas Limited	28
	Mirzapur, Chandauli and Sonbhadra Districts	GAIL Gas Limited	19
	Moradabad	Torrent Gas Moradabad Limited	7
	Moradabad (EAAA) District	Torrent Gas Private Limited	18
	Noida (including Greater Noida)	Indraprastha Gas Limited	58
	Saharanpur District	Bharat Petroleum Corporation Limited	12
	Shahjahanpur and Budaun Districts	Hindustan Petroleum Corporation Limited	34
	Unnao (EAAA) District	Green Gas Limited	2
	Varanasi District	GAIL (India) Limited	23
	Uttar Pradesh Total		849
<b>Uttar Pradesh and Uttrakhand Total</b>			<b>26</b>
Uttarakhand	Dehradun District	GAIL Gas Limited	13
	Haridwar District	Haridwar Natural Gas Limited	8
	Udham Singh Nagar District	Indian-Oil Adani Gas Private Limited	10
<b>Uttarakhand Total</b>			<b>31</b>
West Bengal	Burdwan District	Indian-Oil Adani Gas Private Limited	22
	Darjeeling, Jalpaiguri and Uttar Dinajpur Districts	Hindustan Petroleum Corporation Limited	1
	East Mednipore, West Mednipore and Jhargram districts	Indian Oil Corporation Limited	1
	Howrah (EAAA) District and Hoogly (EAAA) District	Hindustan Petroleum Corporation Limited	15
	Kolkata Municipal Corporation and Parts of Adjoining Districts	Bengal Gas Company Limited	12
	Nadia (EAAA) District and North 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	14
	Purulia and Bankura districts	Bharat Petroleum Corporation Limited	9
	South 24 Parganas (EAAA) District	Hindustan Petroleum Corporation Limited	3
<b>West Bengal Total</b>			<b>77</b>
<b>Grand Total</b>			<b>6035</b>

Source: PNGRB

**Note :** EAAA stands for Excluding/Except Area Already Authorized ; \* stands for the data not provided by the CGD Entity ; # stands for authorization was cancelled by PNGRB, however, authorization has been reinstated based on court order ; ## stands for NOC issued ; \*\* stands for Sub-judice ; \*\*\* stands for under examination for authorization

**Disclaimer:** While every care has been taken to provide the accurate data as per submissions by the authorized entities, PNGRB/PPAC shall not be held responsible for any loss, damage etc. due to action taken by any one based on information collated by PNGRB/PPAC

**Table 3.9 : LNG terminals (Operational)**

Location	Promoters	Capacity as on 01.10.2023, MMTPA	% Capacity utilisation (April to Sep. 2023(P))
Dahej	Petronet LNG Ltd (PLL)	17.5	94.31
Hazira	Shell Energy India Pvt. Ltd.	5.2	39.84
Dabhol*	Konkan LNG Limited	5	28.95
Kochi	Petronet LNG Ltd (PLL)	5	19.87
Ennore	Indian Oil LNG Pvt Ltd	5	16.20
Mundra	GSPC LNG Limited	5	12.50
Dhamra	Adani Total Private Limited	5	26.40
<b>Total Capacity</b>		<b>47.7</b>	

\* To increase to 5 MMTPA with breakwater. Only HP stream of capacity of 2.9 MMTPA is commissioned

**Table 3.10 : Import of Liquefied Natural Gas (LNG)**

Financial Year	LNG import quantity/value				
	MMT	MMSCM	MMBtu	Value (Mn. USD)	USD / MMBtu
2019-20	24.4	32,352	1,26,84,07,585	9,663	7.6
2020-21	25.1	33,198	1,31,73,69,257	7,881	6.0
2021-22	23.4	31,028	1,23,12,52,501	13,472	10.9
2022-23	19.9	26,304	1,04,38,25,872	17,114	16.4
Apr-Sep 2022	10.3	13,680	53,63,44,390	9,434	17.6
Apr-Sep 2023(P)	11.6	15,416	60,44,06,806	6,486	10.7

**Source:** P: provisional; DGCIS based LNG imports.

Conversion of MMSCM to MMBtu is based on approximation of 1 Million BTU (MMBTU) = 25.2 SCM. (@10000 Kcal/SCM; 1 MMBtu = 252000 Kcal)

**Table 3.11 : Domestic natural gas price and gas price ceiling**

Period	Domestic natural gas price in US\$/MMBTU (GCV basis)*	Gas price ceiling (HPHT)in US\$/MMBTU (GCV basis)**
November 2014 - March 2015	5.05	
April 2015 - September 2015	4.66	
October 2015 - March 2016	3.82	
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.5	5.3
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.3
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67
April 2019 - September 2019	3.69	9.32
October 2019 - March 2020	3.23	8.43
April 2020 - September 2020	2.39	5.61
October 2020 - March 2021	1.79	4.06
April 2021 - September 2021	1.79	3.62
October 2021 - March 2022	2.9	6.13



Period	Domestic natural gas price in US\$/MMBTU (GCV basis)*	Gas price ceiling (HPHT)in US\$/MMBTU (GCV basis)**
April 2022 - September 2022	6.1	9.92
October 2022 - March 2023	8.57	12.46
1 April 2023 - 7 April 2023	9.16	12.12

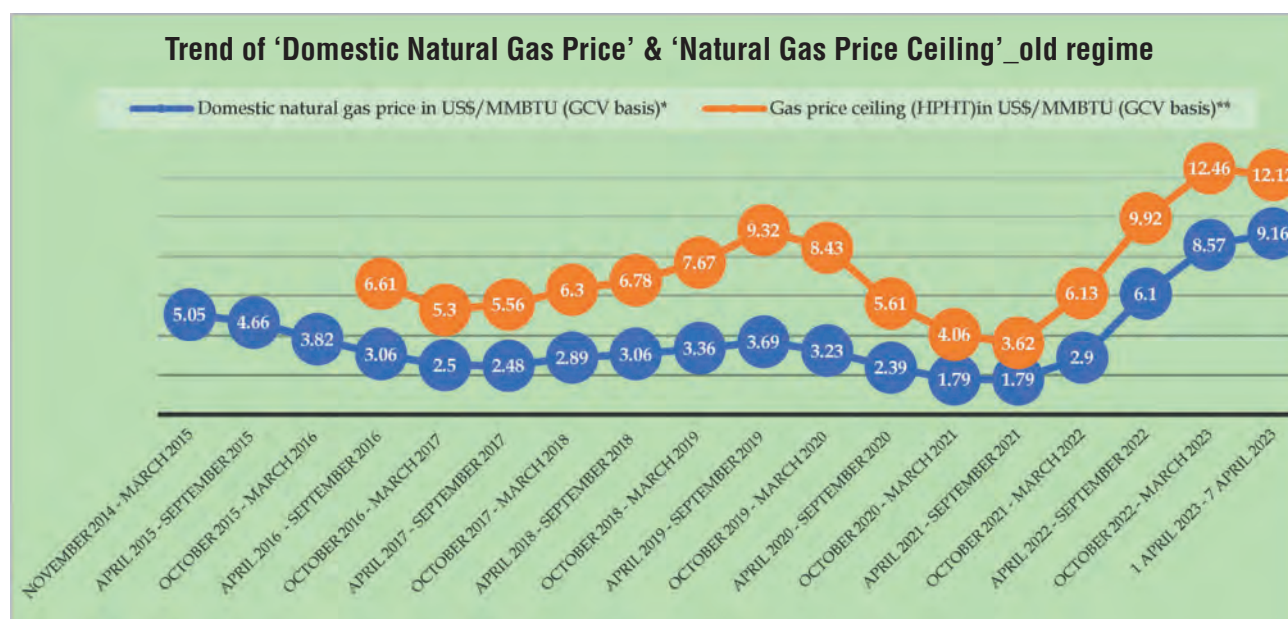
Period	Domestic Gas calculated price in US\$/MMBTU	Domestic Gas ceiling price for ONGC/OIL in US\$/MMBTU	Period	HP-HT Gas price ceiling in US\$/MMBTU
8 April 2023 - 30 April 2023	7.92	6.5	April 2023 - September 2023	12.12
1 May 2023 - 31 May 2023	8.27			
1 June 2023 - 30 June 2023	7.58			
1 July 2023 - 31 July 2023	7.48			
1 August 2023 -31 August 2023	7.85			
1 September 2023 - 30 September 2023	8.60			
1 October 2023 -31 October 2023	9.20		October 2023 - March 2024	9.96

Natural Gas prices are on GCV basis

**Note:**

\* As per the "New Domestic Natural Gas Pricing Guidelines, 2014" issued by Ministry of Petroleum & Natural Gas dated October 25, 2014.

\*\* As per the notification issued by Ministry of Petroleum and Natural Gas dated 21.03.2016 on marketing including pricing freedom for the gas to be produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas.



**Table 3.12 Statewise CGD Sale Profile\* (in SCMD) base period: April 2023- September 2023**

State/Union Territory	CNG	Domestic (PNG)	Commercial (PNG)	Industrial (PNG)	Total
Andhra Pradesh	141409	38130	2291	27958	209788
Andhrapradesh, Karnataka & Tamil Nadu	18145	40	21	75286	93492
Assam	3156	313	0	0	3468
Bihar	211962	10823	2361	865	226010
Bihar & Jharkhand	2323	220	24	0	2567
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	143985	9613	4724	11791	170113
Chhattisgarh	4	0	0	0	4
Dadra and Nagar Haveli (U.T.)	12530	3135	868	110340	126873
DAMAN & DIU (UT)	6108.0	1455.60	1451	14226	23241
Delhi	4543586	364144	144906	170560	5223197
Goa	20406	1947	709	45557	68620
Gujarat	4249407	926155	195715	6348552	11719828
Gujarat & UT of Daman and Diu	25282	1320	249.51	0	26851
Haryana	1786516	78150	32277	645840	2542784
Haryana & Himachal Pradesh	4575	0	0	0	4575
HARYANA & PUNJAB	26739	89	0	0	26828
Himachal Pradesh	2232	1003	274	0	3510
Jammu & Kashmir	0	0	0	0	0
Jharkhand	52992	2645	210	702	56549
Karnataka	354641	58880	22408.22	335596	771525
Kerala	141311	3214	2534	17227	164286
Kerala & Puducherry	12653	136	0	0	12789
Madhya Pradesh	337885	57416	10012	177036	582349
Madhya Pradesh and Chattisgarh	122	0	0	0	122
Madhya Pradesh and Rajasthan	27617.66	177	0	0	27794
Maharashtra	4070871	582075.09	141005	785368	5579319
Maharashtra and Gujarat	80380	1095	653	23318	105445
Maharashtra and Madhya Pradesh	2542.4	0.0	0.0	0.0	2542
Odisha	34908.2	4768.4	124.8	0.0	39801
Puducherry (UT)	335.0	0.0	0.0	0.0	335
Puducherry (UT) & Tamil Nadu	941	75	0.0	0.0	1016
Punjab	238574.8	20885.2	10724.0	310709.4	580893
Punjab and Rajasthan	331	0.0	0.0	0.0	331
Rajasthan	471179	13332	2178	195521	682210
Tamil Nadu	179755	132	228	13695	193810
Telangana	228569	57466.18	572.07	38268	324875
Telangana and Karnataka	3427	0	0	0	3427
Tripura	100011	47162	8547	19443	175162
Uttar Pradesh	2808246	352334	77676	666418	3904674
Uttar Pradesh & Madhya Pradesh	27142	0	0	3513	30655
Uttar Pradesh & Rajasthan	147570	2625	1619	1265019	1416834
Uttar Pradesh & Uttrakhand	19595	4.62	0	0	19600
Uttrakhand	78566	11226	1423	67610	158825
West Bengal	35323	270	22	336	35952
<b>Grand Total</b>	<b>20653851</b>	<b>2652456</b>	<b>665809</b>	<b>11370755</b>	<b>35342871</b>

\* Inputs based on the information submitted by CGD entities - subject to revisions, if any.

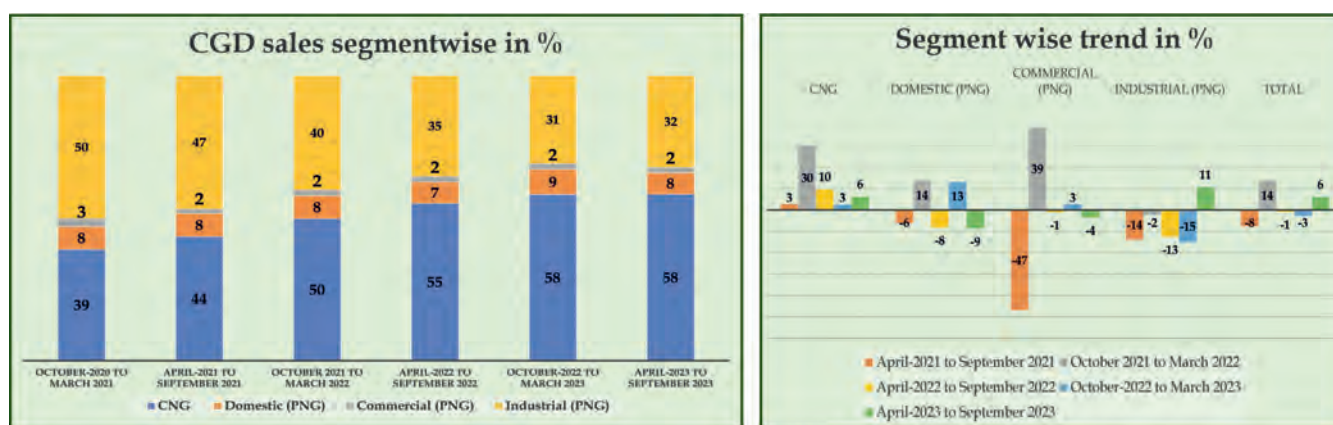
Sales of SCMD (SCM per day) calculated based on sale for period April 2023 to September 2023

**Table 3.12 A: CGD SALES DATA\* (IN SCMD)-SIX MONTHS**

Period	CNG	Domestic (PNG)	Commercial (PNG)	Industrial (PNG)	Total
October-2020 to March 2021	12864911	2621058	922209	16507543	32915721
April-2021 to September 2021	13238071	2456140	489067	14206677	30389956
October 2021 to March 2022	17253563	2801726	678335	13870178	34603802
April-2022 to September 2022	18938879	2570973	671072	12112714	34293638
October-2022 to March 2023	19423450	2908893	690704	10272961	33296008
April-2023 to September 2023	20653851	2652456	665809	11370755	35342871

\* Inputs based on the information submitted by CGD entities - subject to revisions, if any.  
Sales of SCMD (SCM per day) calculated based on sale period

**Segment Trends - CGD Sae Profile vis-à-vis previous Six Months (in %)**

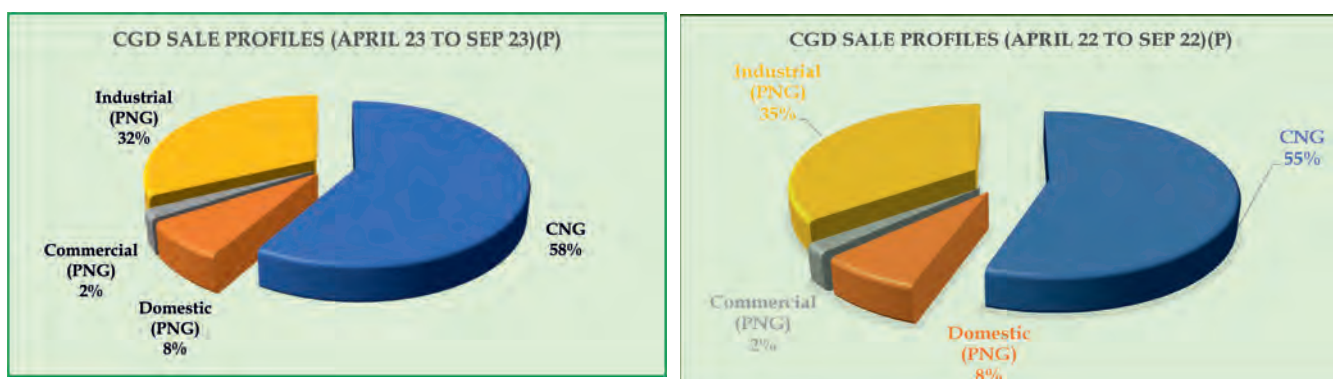


**Table 3.12B: Basket Trends- CGD Sale Profile\* (in MMSCM) - Annual**

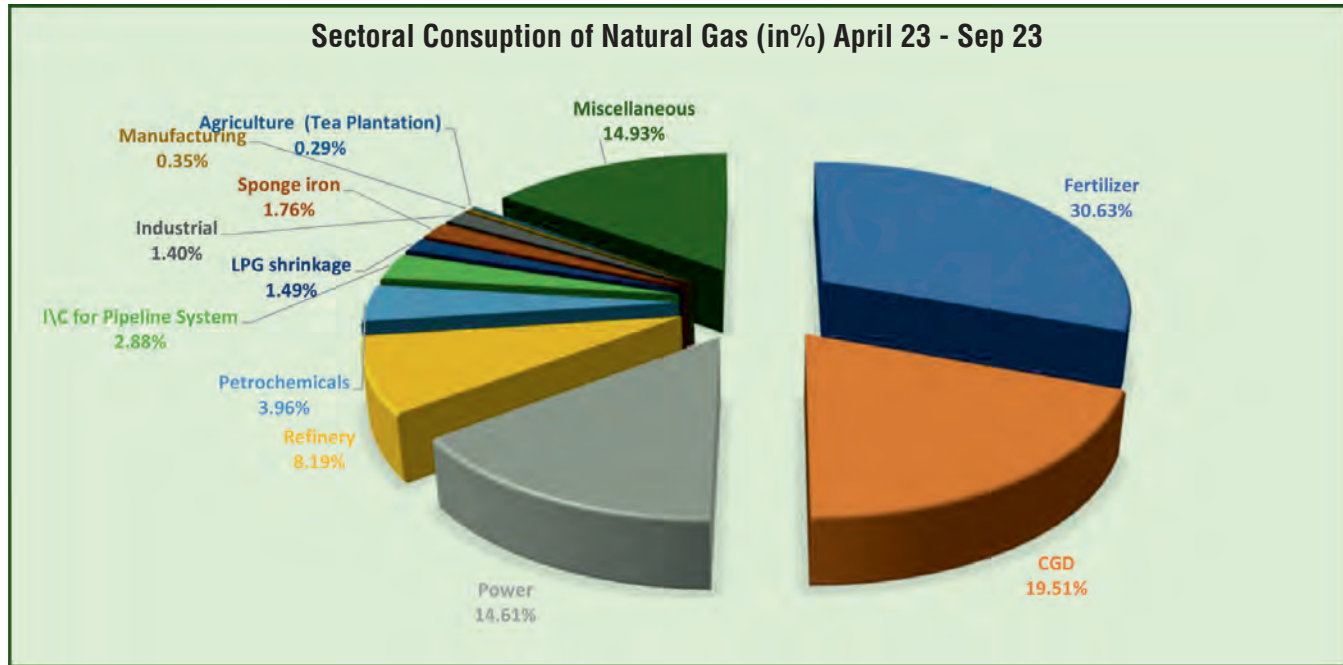
Period	CNG	Domestic (PNG)	Commercial (PNG)	Industrial (PNG)	Total	Total (in MMSCMD)
FY 2021-22	5563	959	213	5124	11859	32
FY 2022-23	7001	1000	249	4086	12336	34
FY 2022-23(April 22 to Sep 22)	3466	470	123	2217	6276	34
FY 2023-24(P)(April 23 to Sep 23)	3780	485	122	2081	6468	35

\* Inputs based on the information submitted by CGD entities - subject to revisions, if any.  
Sales in % calculated based on sale for period

**Sectorial Break up of CGD Sales Profile Apr-Sep 2023 vs Apr-Sep 2022**



Sectorial Consumption of Natural Gas (in %) April - September 2023



# Chapter-4

# Refining & Production





## Chapter - Highlights

### Refining & Production

As of April 2023, India's oil refining capacity stood Refining & Production at 253.9 million metric tonnes per annum (MMTPA) from 251.2 MMTPA in FY 2022 – 23 as the Refining Capacity of HPCL – VISHAKH refinery has increased from 8.3 MMTPA to 11.0 MMTPA. India stands as the second-largest refiner in Asia and the fourth largest globally. The country is equipped with 22 operational refineries, with private companies holding approximately 34.7% of the total refining capacity.

Cauvery Basin Refinery (CBR) – Nagapattinam is under capacity augmentation from 1.0 MMTPA to 9 MMTPA. The construction of HPCL Rajasthan Refinery Ltd. (HRRL), a joint venture between Hindustan Petroleum Corporation Limited (HPCL) and the Government of Rajasthan (GoR), is underway. The equity participation in the venture is 74% by HPCL and 26% by the Government of Rajasthan, and it has a capacity of 9.0 million metric tons per annum (MMTPA). Numaligarh Refinery is under capacity augmentation from 3.0 MMTPA to 9.0 MMTPA.

Indian refineries have elevated their crude processing, resulting in the processing of 129.8 million metric tons (excluding other inputs) during the first half of the fiscal year 2023–24. This reflects a 2.8% increase compared to the first half of the fiscal year 2022–23. The overall capacity utilization by Indian refineries reached 102.2% in the first half of fiscal year 2023–24, showing a growth from 99.5% during the corresponding period of the previous year.

Due to recovery of demand, the total production of petroleum products by Indian refineries increased by 4.0% during H1 of FY 2023-24 as compared to the corresponding period of the previous year. The rise in production can be attributed mainly to increased production of high-speed diesel (HSD), motor spirit (MS) and aviation turbine fuel (ATF). HSD accounts for 41.9%, MS 16.4% and ATF 6.1% in production basket of petroleum products.

### Export & Import

#### Crude Import

The crude oil imports during the first half of FY 2023-24 registered a 0.3% increase compared to the previous year, aligning with the concurrent rise in the consumption of petroleum products.

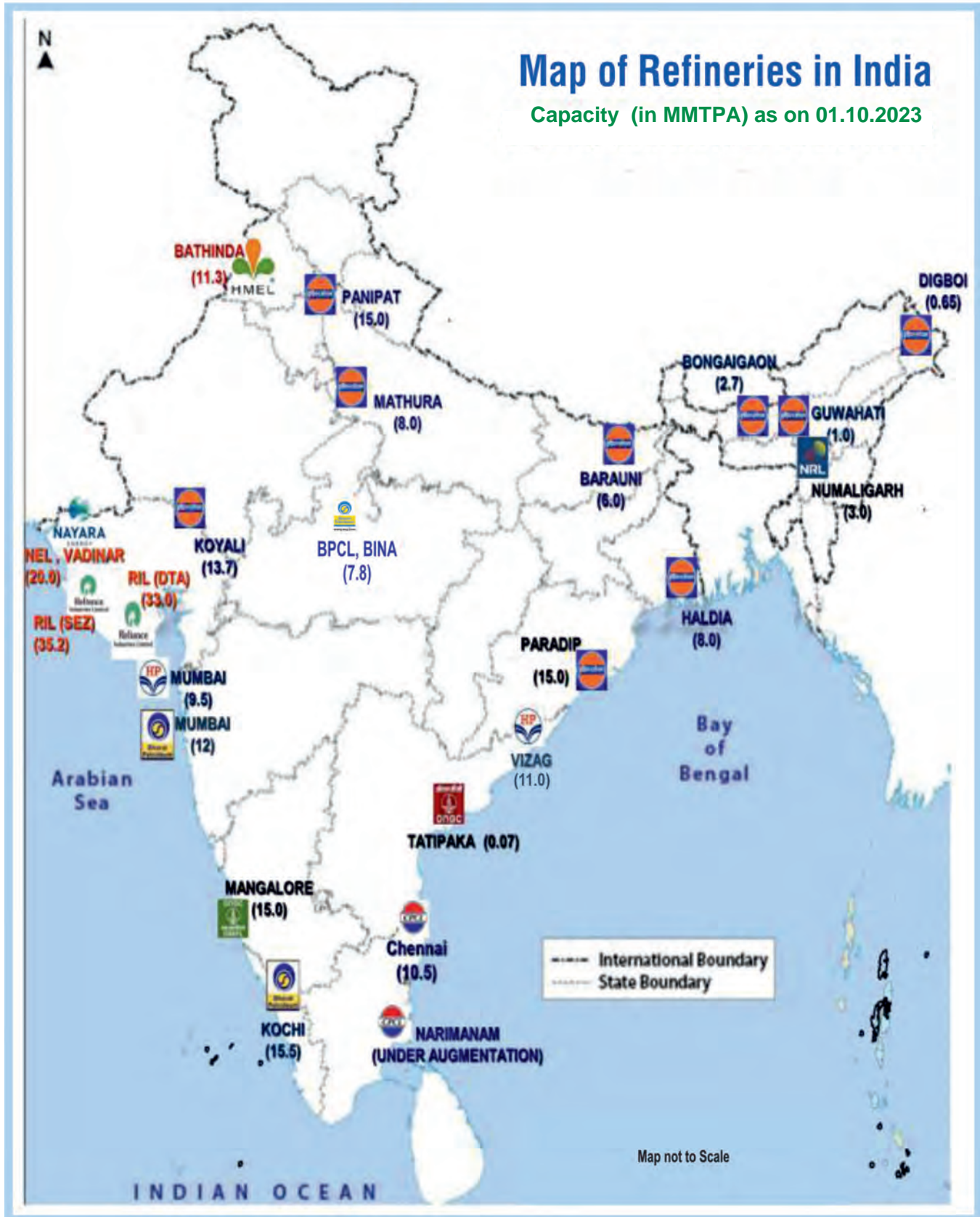
#### Product Exports

In the first half of FY 2023-24, the exports of Petroleum, Oil, and Lubricants (POL) products saw a decline of 2.5% compared to the previous year. The reduction in POL product exports in FY 2022-24 was primarily attributed to a decrease in the export of high-speed diesel (HSD) and naphtha. In value terms, exports during the first half of FY 2023-24 dropped from 32.9 billion US dollars to 23.6 billion US dollars, marking a 28.3% decrease compared to the same period in FY 2022-23. High-speed diesel (HSD), motor spirit (MS), and aviation turbine fuel (ATF) emerged as the top three products in the export basket of petroleum products during the first half of FY 2023-24, with shares of 44.2%, 23.3%, and 13.7%, respectively.

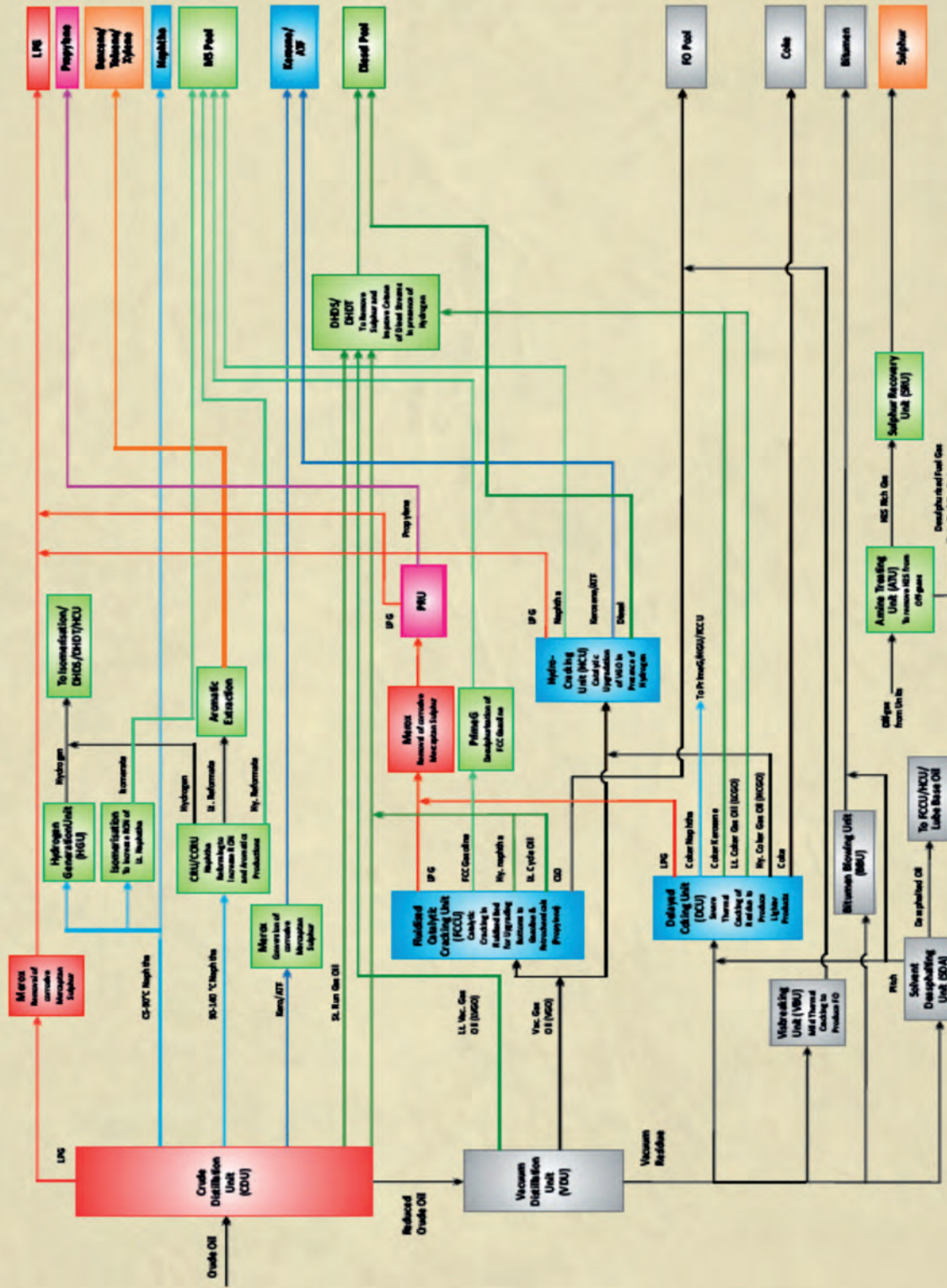
#### Product Imports


In the first half of FY 2023-24, imports of Petroleum, Oil, and Lubricants (POL) products experienced a notable increase of 13.0% compared to the previous year. The rise in imports during this period was primarily driven by an increase in the import of petcoke, bitumen, and fuel oil (FO). Within the import basket of petroleum products in the first half of FY 2023-24, Liquefied Petroleum Gas (LPG) held the highest share at 35.5%, followed by petcoke at 21.6%, and fuel oil at 18.9%.

Map of refineries in India



# Simplified Block Flow Diagram of a Typical Refinery




  
 पद्म श्री शैलिकी केंद्र  
 (Centre for High Technology)  
 (Ministry of Petroleum & Natural Gas, Govt. of India)



**Table 4.1 : Refineries: Installed capacity and crude oil processing**

Sl. no.	Refinery	Installed capacity (MMTPA)		Crude oil processing (MMT)					
		01.04.2022	01.04.2023	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023 (P)
1	Barauni	6.0	6.0	6.5	5.5	5.6	6.8	3.4	3.3
2	Koyali	13.7	13.7	13.1	11.6	13.5	15.6	7.8	7.5
3	Haldia	8.0	8.0	6.5	6.8	7.3	8.5	4.2	3.8
4	Mathura	8.0	8.0	8.9	8.9	9.1	9.6	4.6	4.3
5	Panipat	15.0	15.0	15.0	13.2	14.8	13.8	7.2	7.4
6	Guwahati	1.0	1.0	0.9	0.8	0.7	1.1	0.5	0.6
7	Digboi	0.7	0.7	0.7	0.6	0.7	0.7	0.3	0.3
8	Bongaigaon	2.4	2.7	2.0	2.5	2.6	2.8	1.3	1.5
9	Paradip	15.0	15.0	15.8	12.5	13.2	13.6	5.6	7.8
	<b>IOCL total</b>	<b>69.7</b>	<b>70.1</b>	<b>69.4</b>	<b>62.4</b>	<b>67.7</b>	<b>72.4</b>	<b>35.0</b>	<b>36.5</b>
10	Mumbai	7.5	9.5	8.1	7.4	5.6	9.8	4.9	5.0
11	Visakh	8.3	11.0	9.1	9.1	8.4	9.3	4.4	6.2
12	HMEL-Bathinda	11.3	11.3	12.2	10.1	13.0	12.7	6.3	6.5
	<b>HPCL total</b>	<b>27.1</b>	<b>31.8</b>	<b>29.4</b>	<b>26.5</b>	<b>27.0</b>	<b>31.8</b>	<b>15.6</b>	<b>17.7</b>
13	Mumbai	12.0	12.0	15.0	12.9	14.4	14.5	6.6	8.1
14	Kochi	15.5	15.5	16.5	13.3	15.4	16.0	8.1	8.4
15	BORL-Bina	7.8	7.8	7.9	6.2	7.4	7.8	3.7	3.0
	<b>BPCL total</b>	<b>35.3</b>	<b>35.3</b>	<b>39.4</b>	<b>32.4</b>	<b>37.2</b>	<b>38.4</b>	<b>18.4</b>	<b>19.5</b>
16	Manali	10.5	10.5	10.2	8.2	9.0	11.3	5.8	5.7
17	CBR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	<b>CPCL total</b>	<b>10.5</b>	<b>10.5</b>	<b>10.2</b>	<b>8.2</b>	<b>9.0</b>	<b>11.3</b>	<b>5.8</b>	<b>5.7</b>
18	Numaligarh	3.0	3.0	2.4	2.7	2.6	3.1	1.6	0.8
19	Tatipaka	0.07	0.07	0.09	0.08	0.08	0.07	0.04	0.03
20	MRPL-Mangalore	15.0	15.0	14.0	11.5	14.9	17.1	8.3	7.6
	<b>ONGC total</b>	<b>15.1</b>	<b>15.1</b>	<b>14.0</b>	<b>11.6</b>	<b>14.9</b>	<b>17.2</b>	<b>8.3</b>	<b>7.6</b>
21	RIL-Jamnagar (DTA)	33.0	33.0	33.0	34.1	34.8	34.4	17.9	17.2
22	RIL-Jamnagar (SEZ)	35.2	35.2	35.9	26.8	28.3	27.9	13.6	14.6
23	NEL*-Vadinar	20.0	20.0	20.6	17.1	20.2	18.7	10.2	10.1
	<b>All India</b>	<b>248.9</b>	<b>253.9</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>	<b>255.2</b>	<b>126.3</b>	<b>129.8</b>

Source: Oil companies; \*Nayara Energy Limited (formerly Essar Oil Limited)  
MMTPA: Million Metric Tonne Per Annum, MMT: Million Metric Tonne

**Table 4.2 : High Sulphur (HS) & Low Sulphur (LS) crude oil processing**

(Million metric tonne)

Sl. no.	Type of crude	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023 (P)
1	HS crude	192.4	161.4	185.0	197.9	98.3	100.1
2	LS crude	62.0	60.3	56.7	57.4	28.0	29.7
	<b>Total crude</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>	<b>255.2</b>	<b>126.3</b>	<b>129.8</b>
	<b>Share of HS crude in total crude processing</b>	<b>75.6%</b>	<b>72.8%</b>	<b>76.6%</b>	<b>77.5%</b>	<b>77.8%</b>	<b>77.1%</b>

Source: Oil companies

**Table 4.3 : Imported crude & indigenous crude oil processing**

(Million metric tonne)

Sl. no.	Indigenous/ Imported crude	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023 (P)
1	Imported crude	225.1	193.8	214.7	228.8	112.7	116.5
2	Indigenous crude	29.3	28.0	27.0	26.5	13.6	13.3
	<b>Total crude</b>	<b>254.4</b>	<b>221.8</b>	<b>241.7</b>	<b>255.2</b>	<b>126.3</b>	<b>129.8</b>
	<b>Share of imported crude in total crude processing</b>	<b>88.5%</b>	<b>87.4%</b>	<b>88.8%</b>	<b>89.6%</b>	<b>89.2%</b>	<b>89.7%</b>

Source: Oil companies

**Table 4.4 : Domestic Production of petroleum products**

(Million metric tonne)

	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023(P)
<b>A) From crude oil/refineries</b>						
<b>Light ends</b>	<b>87.4</b>	<b>83.0</b>	<b>89.3</b>	<b>89.6</b>	<b>44.6</b>	<b>46.3</b>
of which: LPG	10.9	10.2	10.6	11.2	5.6	5.5
MS	38.6	35.8	40.2	42.8	21.1	22.4
Naphtha	19.4	18.4	19.0	16.1	8.3	8.4
Others	18.5	18.6	19.5	19.5	9.7	10.0
<b>Middle distillates</b>	<b>135.5</b>	<b>115.4</b>	<b>125.4</b>	<b>136.6</b>	<b>67.0</b>	<b>69.9</b>
of which: SKO	3.2	2.4	1.9	0.9	0.5	0.5
ATF	15.2	7.1	10.3	15.0	7.0	8.3
HSD	111.1	100.4	107.1	113.7	56.4	57.2
LDO	0.6	0.7	0.8	0.6	0.3	0.3
Others	5.5	4.8	5.3	6.3	2.7	3.5
<b>Heavy ends</b>	<b>35.3</b>	<b>30.9</b>	<b>35.5</b>	<b>36.8</b>	<b>18.0</b>	<b>18.6</b>
of which: Furnace Oil	8.9	7.1	8.5	9.6	4.9	5.5
LSHS	0.4	0.4	0.4	0.7	0.3	0.4
Lube Oil	0.9	1.1	1.2	1.4	0.6	0.7
Bitumen	4.9	4.9	5.1	4.9	2.2	2.3
RPC/Petcoke	14.6	12.0	15.5	15.4	7.7	7.5
Others	5.5	5.5	4.8	4.8	2.3	2.2
<b>Sub total (A)</b>	<b>258.2</b>	<b>229.3</b>	<b>250.3</b>	<b>263.0</b>	<b>129.6</b>	<b>134.8</b>
<b>B) From natural gas/fractionators</b>						
<b>Sub total (B)</b>	<b>4.8</b>	<b>4.2</b>	<b>4.1</b>	<b>3.5</b>	<b>1.8</b>	<b>1.7</b>
of which: LPG	2.0	1.9	1.6	1.6	0.8	0.8
Naphtha	1.2	1.0	1.0	1.0	0.5	0.5
SKO	0.1	0.03	0.02	0.0	0.002	0.001
ATF	0.03	0.02	0.03	0.05	0.02	0.02
HSD	0.1	0.1	0.05	0.1	0.03	0.03
Others	1.5	1.3	1.3	0.8	0.4	0.4
<b>Total production (A +B)</b>	<b>262.9</b>	<b>233.5</b>	<b>254.3</b>	<b>266.5</b>	<b>131.4</b>	<b>136.6</b>

Source: Oil companies



**Table 4.5 : Production of petroleum products : All sources**

(Million metric tonne)

Major products	2019-20		2020-21		2021-22		2022-23 (P)		April-September 2022 (P)		April-September 2023 (P)	
	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
HSD	111.1	42.3	100.4	43.0	107.2	42.1	113.8	42.7	56.5	43.0	57.2	41.9
MS	38.6	14.7	35.8	15.3	40.2	15.8	42.8	16.1	21.1	16.0	22.4	16.4
Naphtha	20.6	7.8	19.4	8.3	20.0	7.9	17.0	6.4	8.8	6.7	8.9	6.5
FO	8.9	3.4	7.1	3.0	8.5	3.3	9.6	3.6	4.9	3.7	5.5	4.0
ATF	15.2	5.8	7.1	3.0	10.3	4.0	15.0	5.6	7.0	5.4	8.4	6.1
LPG	12.8	4.9	12.1	5.2	12.2	4.8	12.8	4.8	6.4	4.8	6.3	4.6
SKO	3.2	1.2	2.4	1.0	1.9	0.8	0.9	0.4	0.5	0.4	0.5	0.4
Bitumen	4.9	1.9	4.9	2.1	5.1	2.0	4.9	1.8	2.2	1.7	2.3	1.7
LSHS	0.4	0.2	0.4	0.2	0.4	0.2	0.7	0.3	0.3	0.2	0.4	0.3
Lubes	0.9	0.4	1.1	0.5	1.2	0.5	1.4	0.5	0.6	0.4	0.7	0.5
LDO	0.6	0.2	0.7	0.3	0.8	0.3	0.6	0.2	0.3	0.2	0.3	0.3
RPC/Petcoke	14.6	5.6	12.0	5.2	15.5	6.1	15.4	5.8	7.7	5.8	7.5	5.5
Others#	31.0	11.8	30.2	12.9	30.9	12.2	31.4	11.8	15.1	11.5	16.1	11.8
<b>Total</b>	<b>262.9</b>	<b>100.0</b>	<b>233.5</b>	<b>100.0</b>	<b>254.3</b>	<b>100.0</b>	<b>266.5</b>	<b>100.0</b>	<b>131.4</b>	<b>100.0</b>	<b>136.6</b>	<b>100.0</b>

Source: Source: Oil companies

# Others include products like sulphur, propylene, propane, reformat, butane, MTO (Mineral Turpentine Oil) etc.



**Table 4.6 : Production vis a vis consumption of petroleum products**

(Million metric tonne)

Year	Consumption (A)	Production from refineries & other sources* (B)	Surplus (+) / Deficit (-) (B)-(A)
1997-98	84.3	64.7	-19.6
1998-99	90.6	68.4	-22.2
1999-00	97.1	82.9	-14.2
2000-01	100.1	99.6	-0.5
2001-02	100.4	104.3	3.9
2002-03	104.1	108.7	4.5
2003-04	107.8	117.6	9.9
2004-05	111.6	123.3	11.6
2005-06	113.2	124.6	11.4
2006-07	120.7	140.6	19.9
2007-08	128.9	150.4	21.5
2008-09	133.6	157.9	24.3
2009-10	137.8	185.5	47.7
2010-11	141.0	196.2	55.2
2011-12	148.1	204.5	56.3
2012-13	157.1	218.2	61.2
2013-14	158.4	220.7	62.3
2014-15	165.5	221.1	55.6
2015-16	184.7	231.9	47.2
2016-17	194.6	243.5	48.9
2017-18	206.2	254.3	48.1
2018-19	213.2	262.4	49.1
2019-20	214.1	262.9	48.8
2020-21	194.3	233.5	39.2
2021-22	201.7	254.3	52.6
2022-23 (P)	223.0	266.5	43.5
<b>Apr-Sep 2022 (P)</b>	<b>107.4</b>	<b>131.4</b>	<b>23.9</b>
<b>Apr-Sep 2023 (P)</b>	<b>114.3</b>	<b>136.6</b>	<b>22.3</b>

Note: includes direct imports by private parties

\*Fractionators and gas processing plants

**Table 4.7 : Gross Refining Margins (GRM) of Refineries**

\$/bbl

Company	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	H1 2022-23	H1 2023-24 (P)
<b>PSU refineries</b>								
IOCL#	8.49	5.41	0.08	5.64	11.25	19.52	25.49	13.12
BPCL	6.85	4.58	2.50	4.06	9.09	20.24	22.30	15.42
HPCL	7.40	5.01	1.02	3.86	7.19	12.09	12.62	10.49
CPCL	6.42	3.70	(1.18)	7.14	8.85	12.48	14.58	10.34
MRPL	7.54	4.06	(0.23)	3.71	8.72	9.88	10.33	12.91
NRL#	31.92	28.11	24.55	37.23	43.46	35.82	40.51	30.65
BORL	11.70	9.80	5.60	6.20	11.00	**	**	**
RIL	11.60	9.20	8.90	*	*	*	*	*
NEL	8.95	6.97	5.88	*	*	*	*	*
Singapore	7.23	4.88	3.25	0.53	4.99	10.76	14.27	6.76

(P) - Provisional

# GRM of North-East refineries are including excise duty benefit

\* Not available

\*\* BPCL figures for the period 2022-23 includes BORL also after its merger with BPCL

As per U.S. Energy Information Administration (EIA), Gross Refining Margin is the difference between the revenue from the sale of petroleum products and the cost of the raw materials used to produce the products.

Source: Indian refineries - published results/ information provided by oil companies; Singapore - Reuters

**Table 4.8 : Distillate yield of PSU refineries**

(Distillate %)

Company	Refinery	2019-20	2020-21	2021-22	2022-23(P)	Apr-Sep 2022(P)	Apr-Sep 2023(P)
IOCL	Barauni	86.9	87.1	85.9	83.8	83.9	82.4
	Koyali	79.5	72.1	76.7	74.0	75.9	74.5
	Haldia	69.0	72.2	72.2	74.8	75.5	71.3
	Mathura	75.6	72.3	74.9	71.8	75.3	71.4
	Panipat	84.8	80.2	83.9	78.9	83.7	80.0
	Guwahati	83.5	82.1	86.4	81.5	83.8	80.1
	Digboi	72.5	67.9	79.2	72.8	79.0	68.8
	Bongaigaon	80.8	84.8	81.3	80.0	81.3	80.8
	Paradip	80.7	79.2	79.6	79.5	77.8	81.3
CPCL	Manali	77.6	78.4	74.9	78.3	76.2	78.8
	CBR	-	-	-	-	-	-
HPCL	Mumbai	77.0	76.2	70.4	75.9	76.8	75.0
	Visakh	72.1	74.4	70.7	67.9	64.3	71.5
BPCL	Mumbai	84.9	83.7	84.4	85.5	83.8	80.7
	Kochi	84.2	83.8	85.4	83.9	86.5	83.7
	Bina	-	-	84.3	85.3	85.0	83.8
NRL	Numaligarh	83.0	86.4	85.7	89.9	87.9	81.7
MRPL	Mangalore	76.7	78.1	78.8	77.9	79.5	80.5
<b>PSU oil cos. average</b>		<b>80.0</b>	<b>78.6</b>	<b>79.6</b>	<b>78.7</b>	<b>79.6</b>	<b>78.6</b>

Source : CHT



**Table 4.9 : Fuel & Loss**

(Million metric tonne)

Sl. no.	Company	Refinery	2019-20			2020-21			2021-22			2022-23 (P)			Apr-Sep 2022 (P)			Apr-Sep 2023 (P)		
			Crude T'put + other inputs	Fuel & Loss		Crude T'put + other inputs	Fuel & Loss		Crude T'put + other inputs	Fuel & Loss		Crude T'put + other inputs	Fuel & Loss		Crude T'put + other inputs	Fuel & Loss		Crude T'put + other inputs	Fuel & Loss	
				Qty	%		Qty	%		Qty	%		Qty	%		Qty	%		Qty	%
1	IOCL	Barauni	6.7	0.6	8.8	5.7	0.6	9.8	5.7	0.5	9.6	6.9	0.6	8.8	3.4	0.3	8.9	3.4	0.3	8.8
2		Koyali	13.9	1.3	9.3	12.4	1.2	10.0	14.2	1.4	9.6	16.1	1.4	8.5	8.1	0.7	8.3	8.0	0.7	9.0
3		Haldia	6.6	0.6	9.6	6.9	0.7	10.5	7.5	0.8	10.7	8.9	0.9	9.8	4.4	0.4	10.1	4.0	0.4	9.8
4		Mathura	9.5	0.6	6.7	9.4	0.7	7.0	9.7	0.7	6.8	10.1	0.7	6.5	4.9	0.3	6.6	4.6	0.3	6.8
5		Panipat	16.7	1.4	8.3	14.9	1.4	9.2	16.7	1.4	8.5	15.1	1.4	9.0	8.0	0.7	8.6	8.3	0.7	8.4
6		Guwahati	1.3	0.1	9.7	1.1	0.1	10.6	1.0	0.1	9.7	1.4	0.13	8.7	0.7	0.1	8.6	0.7	0.1	9.1
7		Digboi	0.7	0.1	11.0	0.7	0.1	11.7	0.8	0.1	10.6	0.8	0.08	10.4	0.4	0.04	10.5	0.4	0.04	11.1
8		Bongaigaon	2.1	0.2	8.5	2.5	0.3	11.1	2.8	0.3	11.9	2.9	0.3	11.8	1.3	0.2	12.7	1.6	0.2	11.9
9		Paradip	15.8	1.5	9.6	12.5	1.4	11.0	13.4	1.5	11.0	13.7	1.4	10.0	5.6	0.6	10.5	7.9	0.8	10.2
		<b>IOCL Total</b>	<b>73.4</b>	<b>6.4</b>		<b>66.1</b>	<b>6.4</b>		<b>71.7</b>	<b>6.8</b>		<b>76.0</b>	<b>6.8</b>		<b>36.9</b>	<b>3.3</b>		<b>38.7</b>	<b>3.5</b>	
10	HPCL	Mumbai	8.1	0.4	5.1	7.5	0.6	8.0	5.7	0.5	8.2	9.8	0.7	7.4	4.9	0.4	7.7	5.0	0.4	7.2
11		Visakh	9.1	0.7	7.5	9.1	0.7	7.9	8.4	0.7	8.1	9.3	0.7	7.5	4.4	0.3	7.6	6.2	0.4	6.8
12		HMEL-Bathinda	12.3	0.7	5.7	10.1	0.6	6.0	13.1	0.8	6.1	12.8	0.9	7.3	6.3	0.4	6.7	6.6	0.4	5.6
		<b>HPCL Total</b>	<b>29.5</b>	<b>1.8</b>		<b>26.7</b>	<b>1.9</b>		<b>27.2</b>	<b>1.9</b>		<b>31.9</b>	<b>2.4</b>		<b>15.6</b>	<b>1.1</b>		<b>17.8</b>	<b>1.1</b>	
13	BPCL	Mumbai	15.1	0.6	4.2	13.1	0.5	4.1	14.5	0.6	4.3	14.6	0.7	4.9	6.7	0.3	5.0	8.1	0.4	4.8
14		Kochi	17.2	1.4	8.3	13.9	1.1	8.2	15.9	1.4	8.8	16.4	1.4	8.7	8.3	0.7	9.0	8.5	0.7	8.4
15		BORL-Bina	7.9	0.8	9.9	6.2	0.7	11.8	7.4	0.8	10.6	7.8	0.8	10.2	3.7	0.4	11.0	3.0	0.3	10.9
		<b>BPCL Total</b>	<b>40.2</b>	<b>2.8</b>		<b>33.1</b>	<b>2.4</b>		<b>37.8</b>	<b>2.8</b>		<b>38.9</b>	<b>3.0</b>		<b>18.6</b>	<b>1.5</b>		<b>19.7</b>	<b>1.4</b>	
16		Numaligarh	2.7	0.3	10.0	3.0	0.3	9.9	2.9	0.3	9.8	3.4	0.3	9.5	1.7	0.2	9.2	1.0	0.1	11.6
17	CPCL	Manali	10.3	1.0	10.0	8.5	0.9	10.7	9.4	0.9	9.7	11.6	1.0	9.1	5.9	0.5	8.9	5.9	0.5	9.1
18		CBR	0.002	0.00	52.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		<b>CPCL Total</b>	<b>10.3</b>	<b>1.0</b>		<b>8.5</b>	<b>0.9</b>		<b>9.4</b>	<b>0.9</b>		<b>11.6</b>	<b>1.0</b>		<b>5.9</b>	<b>0.5</b>		<b>5.9</b>	<b>0.5</b>	
19	ONGC	Tatipaka	0.1	0.007	7.8	0.1	0.004	5.1	0.1	0.003	4.5	0.07	0.003	4.2	0.04	0.001	4.1	0.03	0.001	2.4
20		MRPL-Mangalore	14.1	1.5	10.6	11.5	1.4	11.9	15.0	1.6	10.8	17.1	1.9	11.1	8.3	0.9	11.4	7.6	0.8	11.0
		<b>ONGC Total</b>	<b>14.2</b>	<b>1.5</b>		<b>11.6</b>	<b>1.4</b>		<b>15.0</b>	<b>1.6</b>		<b>17.2</b>	<b>1.9</b>		<b>8.3</b>	<b>0.9</b>		<b>7.6</b>	<b>0.8</b>	
21	RIL	Jamnagar (DTA)	40.1	3.8	9.5	40.7	4.0	9.9	41.1	4.0	9.7	41.4	4.3	10.4	21.3	2.2	10.5	20.8	2.1	10.3
22		Jamnagar (SEZ)	52.1	4.6	8.9	45.1	4.4	9.8	50.5	5.0	9.8	51.6	5.3	10.2	25.2	2.7	10.7	27.1	2.9	10.7
23	NEL*	Vadinar	21.1	1.2	5.7	17.5	1.0	6.0	20.5	1.1	5.5	19.1	1.1	5.8	10.4	0.6	5.8	10.4	0.6	5.8
		<b>Total</b>	<b>283.5</b>	<b>23.5</b>		<b>252.3</b>	<b>22.8</b>		<b>276.1</b>	<b>24.4</b>		<b>291.0</b>	<b>26.0</b>		<b>143.9</b>	<b>13.1</b>		<b>149.0</b>	<b>13.2</b>	

\*Nayara Energy Limited (formerly Essar Oil Limited)

Source: Oil companies

Table 4.10: Specific energy consumption of PSU Refineries

(MBTU/Bbl/NRGF)

Company	Refinery	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022 (P)	Apr-Sep 2023 (P)
IOCL	Barauni	75.9	78.1	76.8	70.9	72.4	70.8
	Koyali	77.4	82.6	79.5	69.7	69.4	76.2
	Haldia	88.3	89.3	86.9	71.8	78.7	77.3
	Mathura	65.8	63.1	62.7	60.3	60.0	63.9
	Panipat	64.5	68.0	63.6	59.7	61.1	62.4
	Guwahati	121.2	123.7	121.4	103.0	106.5	100.7
	Digboi	101.7	98.1	88.4	96.1	98.2	99.9
	Bongaigaon	96.8	108.5	111.1	105.4	114.7	101.4
	Paradip	64.1	69.0	68.4	60.7	66.0	61.8
CPCL	Manali	81.5	86.7	82.8	75.2	74.1	72.2
	CBR	-	-	-	-		
HPCL	Mumbai	84.8	98.2	105.8	74.5	78.7	75.0
	Visakhapatnam	84.4	81.2	85.3	78.3	84.0	80.7
BPCL	Mumbai	63.0	64.4	64.1	62.5	64.9	60.7
	Kochi	68.2	71.7	67.1	65.4	64.3	62.8
	Bina	-	-	69.9	66.8	72.6	67.6
NRL	Numaligarh	64.8	64.4	63.5	61.4	61.6	64.0
MRPL	Mangalore	75.3	81.4	73.5	71.3	71.2	75.2
PSU average		72.8	76.6	73.7	68.8	70.2	69.6

Specific Energy Consumption written as SEC or MBN;mbn=MBTU/Bbl/NRGF;MBTU: Net energy & loss in Refinery(Thousand British Thermal Unit);

**BbLs:** Barrels of crude processed;NRGF:Composite energy factor for the Refinery



**Table 4.11 : Import/export of crude oil and petroleum products**

Import / export	Crude oil & petroleum products	2020-21			2021-22			2022-23			Apr-Sep 2022			Apr-Sep 2023 (P)		
		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value	
		Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)	Million tonne	US\$ (Billion)	Rs. (Crores)
I M P O R T	Crude oil	196.5	62.2	459779	212.4	120.7	901262	232.7	157.5	1260372	115.5	89.1	698812	115.8	63.7	524480
	of which, PSU/JVs	121.8	39.7	292718	134.7	77.3	577372	154.0	106.4	852592	75.2	59.3	466278	75.6	41.9	344861
	Private	74.7	22.6	167060	77.7	43.4	323890	78.7	51.2	407780	40.3	29.8	232534	40.2	21.8	179619
	Products															
	LPG	16.5	7.2	53752	17.0	12.2	91468	18.3	13.3	107191	8.7	6.8	53156	8.3	4.2	34842
	Petrol	1.4	0.7	4950	0.7	0.5	3895	1.1	1.1	8846	0.4	0.5	3950	0.4	0.4	3454
	Naphtha	1.2	0.5	3844	0.2	0.2	1499	0.9	0.6	4781	0.4	0.3	2270	0.6	0.4	3149
	Aviation Turbine Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Kerosene	0.003	0.002	12	0	0	0	0	0	0	0	0	0	0	0	0
	Diesel	0.6	0.3	1960	0.04	0.03	253	0.3	0.5	3584	0.3	0.4	3189	0.02	0.01	115
	Lubes/LOBS	2.7	1.6	12170	3.1	2.6	19704	2.2	2.3	18449	1.1	1.3	9838	1.2	1.1	9333
	Fuel Oil	6.5	1.9	14312	9.0	4.4	32815	8.6	4.2	33474	4.1	2.5	19280	4.4	1.9	15784
	Bitumen	2.1	0.6	4325	2.6	1.0	7678	2.8	1.2	9945	1.0	0.5	3956	1.7	0.7	5944
	Petcoke	8.3	0.9	6410	4.2	1.1	8203	8.7	2.3	18157	3.9	1.1	9001	5.1	0.9	7634
	Others**	4.1	1.0	7695	2.2	1.5	11319	1.8	1.4	11425	0.8	0.7	5561	1.7	1.0	8376
	<b>Total product import</b>	<b>43.2</b>	<b>14.8</b>	<b>109430</b>	<b>39.0</b>	<b>23.7</b>	<b>176835</b>	<b>44.6</b>	<b>26.9</b>	<b>215854</b>	<b>20.7</b>	<b>14.1</b>	<b>110201</b>	<b>23.4</b>	<b>10.8</b>	<b>88631</b>
	of which, PSU/JVs	18.7	8.3	61332	18.1	13.0	97082	19.9	15.0	120452	9.4	7.8	60864	8.9	4.7	39036
Private	24.6	6.5	48098	20.9	10.7	79753	24.7	11.9	95402	11.3	6.3	49337	14.5	6.0	49595	
<b>*Total import (crude oil + product)*</b>	<b>239.7</b>	<b>77.0</b>	<b>569208</b>	<b>251.4</b>	<b>144.3</b>	<b>1078097</b>	<b>277.3</b>	<b>184.4</b>	<b>1476226</b>	<b>136.2</b>	<b>103.1</b>	<b>809013</b>	<b>139.2</b>	<b>74.4</b>	<b>613111</b>	
Products																
LPG	0.5	0.2	1797	0.5	0.4	3214	0.5	0.5	3891	0.3	0.3	2099	0.3	0.2	1437	
Petrol	11.6	5.0	36530	13.5	10.9	81649	13.1	12.9	102800	6.5	7.3	56911	7.2	6.1	50476	
Naphtha	6.5	2.5	18643	6.9	5.0	37231	5.7	4.2	33357	3.2	2.5	19790	2.6	1.5	12437	
Aviation Turbine Fuel	3.5	1.3	9377	5.2	3.7	27112	7.3	7.3	58598	3.4	3.8	29783	4.2	3.4	27899	
Kerosene	0.02	0.01	48	0.01	0.01	77	0.01	0.01	100	0.01	0.01	59	0.01	0.01	43	
Diesel	30.6	11.1	81611	32.4	22.1	164741	28.5	28.9	230813	15.4	17.2	135064	13.6	10.6	87635	
LDO	0	0	0	0	0	0	0.001	0.002	13	0.001	0.001	6	0	0	0	
Lubes/LOBS	0.01	0.01	93	0.01	0.02	114	0.01	0.03	205	0.01	0.01	92	0.002	0.005	38	
Fuel Oil	1.2	0.3	2318	1.8	0.9	6633	1.8	1.0	7834	0.8	0.5	3651	0.9	0.4	3333	
Bitumen	0.01	0.003	23	0.01	0.004	28	0.01	0.01	42	0.003	0.002	17	0.01	0.003	21	
Petcoke / CBFS	0.6	0.04	292	0.2	0.1	553	0.3	0.1	648	0.1	0.04	351	0.03	0.003	23	
Others***	2.3	0.9	6436	2.3	1.4	10449	3.7	2.5	20427	1.7	1.3	10336	2.0	1.3	11123	
<b>Total product export</b>	<b>56.8</b>	<b>21.4</b>	<b>157168</b>	<b>62.8</b>	<b>44.4</b>	<b>331801</b>	<b>61.0</b>	<b>57.3</b>	<b>458729</b>	<b>31.5</b>	<b>32.9</b>	<b>258159</b>	<b>30.7</b>	<b>23.6</b>	<b>194466</b>	
of which, PSU/JVs	10.6	4.0	29708	14.2	10.3	76775	12.9	11.6	92805	6.9	6.9	53849	5.8	4.2	34408	
Private	46.1	17.4	127460	48.6	34.2	255026	48.1	45.7	365923	24.6	26.0	204310	24.9	19.4	160058	
<b>Net import</b>	<b>182.9</b>	<b>55.6</b>	<b>412041</b>	<b>188.6</b>	<b>99.9</b>	<b>746296</b>	<b>216.3</b>	<b>127.1</b>	<b>1017497</b>	<b>104.8</b>	<b>70.2</b>	<b>550854</b>	<b>108.6</b>	<b>50.8</b>	<b>418645</b>	
<b>Net product export</b>	<b>13.5</b>	<b>6.6</b>	<b>47738</b>	<b>23.7</b>	<b>20.8</b>	<b>154966</b>	<b>16.4</b>	<b>30.4</b>	<b>242875</b>	<b>10.8</b>	<b>18.9</b>	<b>147958</b>	<b>7.3</b>	<b>12.8</b>	<b>105835</b>	

Source: Source: Oil companies & DGCIS, (P) : Provisional, DGCIS data is prorated for September 2023 based on data received from DGCIS from September 2022 to August 2023

Note:

Figures are rounded off

\*Import does not include LNG imports

\*\*Other imports include Paraffin Wax, Petroleum Jelly, Aviation Gas, MTBE, Reformate etc.

\*\*\*Other exports include VGO, Benzene, Hexane, MTO, Sulphur etc.

"Others" in exports include RIL-SEZ exports of "Others" with unspecified heavy ends.

Crude oil imports increased by 3.9% and 0.3% during September 2023 and April-September 2023 respectively as compared to the corresponding period of the previous year. Imports made due to deficit in production viz. LPG and Lubes/LOBS accounted for 40.6% share of total POL products import during April-September 2023-24 as compared to 47.3% during April-September 2022-23. Imports of naphtha and FO were done for commercial and technical considerations and accounted for 21.8% share of total POL products import during April-September 2023-24 as compared to 21.6% during April-September 2022-23. Decrease of 2.5% was recorded in POL products export during April-September 2023-24 as compared to during April-September 2022-23 mainly due to decrease in exports of high speed diesel (HSD) and naphtha.



Table 4.12 : Exchange rates of Indian rupee (₹)

Year	US dollar (\$)	British pound (£)	Euro (€)	Japanese yen (¥)
	Indian rupee (₹) / foreign currency			
2002-03	48.41	74.84	48.07	0.40
2003-04	45.92	77.74	54.01	0.41
2004-05	44.95	82.95	56.55	0.42
2005-06	44.28	79.02	53.88	0.39
2006-07	45.29	85.72	58.11	0.39
2007-08	40.24	80.80	56.99	0.35
2008-09	45.91	78.45	65.14	0.46
2009-10	47.42	75.88	67.08	0.51
2010-11	45.58	70.88	60.21	0.53
2011-12	47.95	76.40	65.90	0.61
2012-13	54.45	86.02	70.06	0.66
2013-14	60.50	96.23	81.14	0.60
2014-15	61.15	98.56	77.47	0.56
2015-16	65.46	98.76	72.31	0.55
2016-17	67.09	87.71	73.61	0.62
2017-18	64.45	85.47	75.42	0.58
2018-19	69.89	91.74	80.93	0.63
2019-20	70.88	90.15	78.80	0.65
2020-21	74.20	97.06	86.67	0.70
2021-22	74.51	101.78	86.56	0.66
2022-23	80.39	96.83	83.72	0.59
2023-24 (Apr-Nov'23)	82.64	103.45	89.53	0.58
<b>2023 : Month wise</b>				
January	81.90	100.08	88.21	0.63
February	82.61	99.90	88.53	0.62
March	82.29	99.81	88.04	0.62
April	82.02	101.98	89.87	0.61
May	82.34	102.73	89.48	0.60
June	82.23	103.81	89.07	0.58
July	82.15	105.81	90.84	0.58
August	82.79	105.25	90.37	0.57
September	83.05	103.03	88.74	0.56
October	83.24	101.23	87.84	0.56
November	83.30	103.36	89.99	0.56

**Source:** Reserve Bank of India (RBI)/ Financial Benchmark India Private Limited (FBIL) website.

**Note:** The rates are average for the period.



# Chapter-5

# Major Pipelines in India





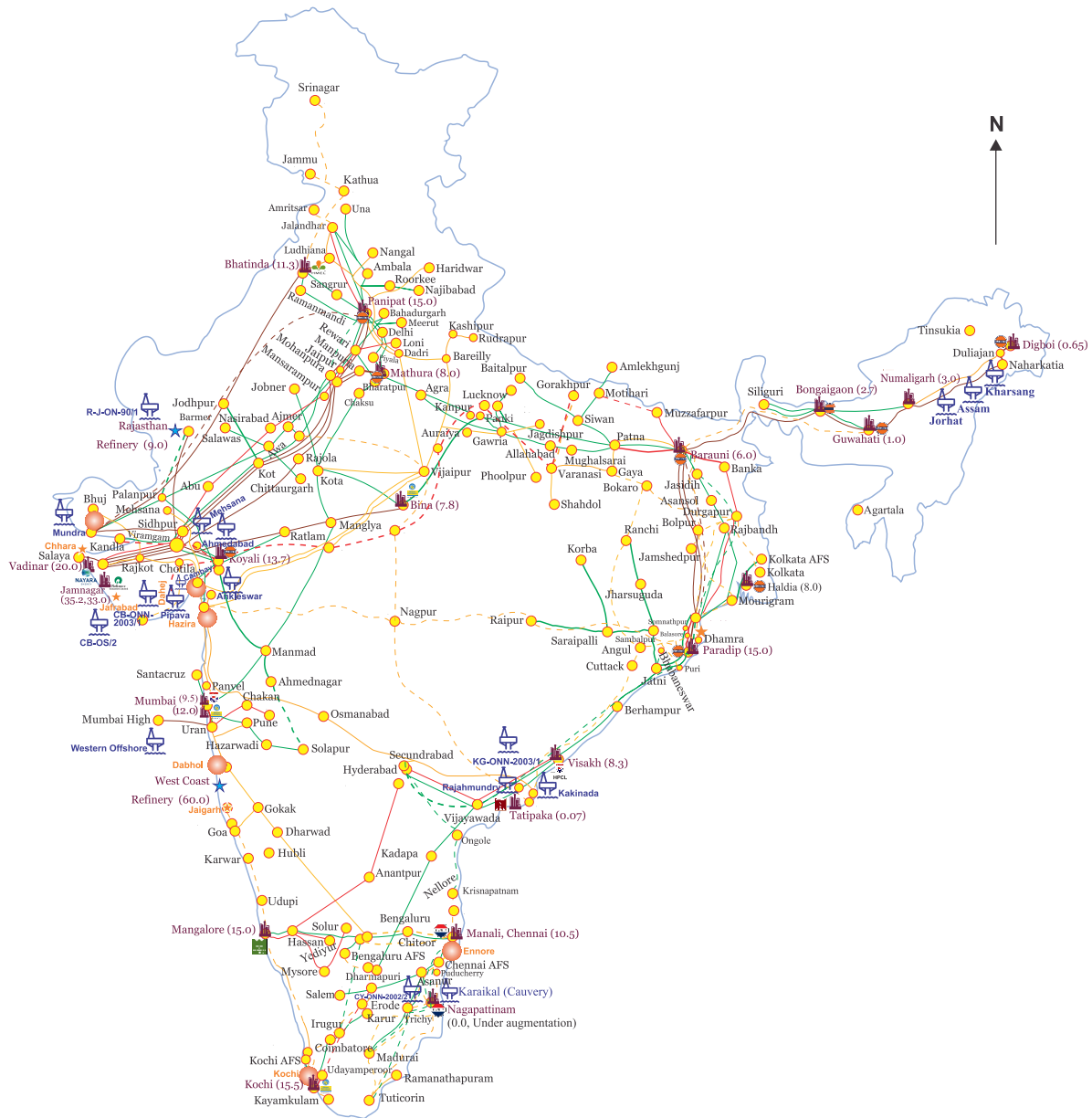
## Chapter - Highlights

### Major Pipelines in India

Pipelines play a crucial role in maintaining the supply chain for crude oil, petroleum products, and gas in the country. Onshore cross-country pipelines are buried underground at a depth of approximately 1.5 meters within a corridor spanning about 18 meters, operating at elevated pressures. As of September 30, 2023, the total length of the crude oil pipeline network in India is 10,938 kilometers, boasting a capacity of 153.1 million metric tons per annum (MMTPA). In the first half of FY 2023-24, the utilization of crude oil pipelines stands at 66.6%.

Product pipelines, inclusive of LPG, form a comprehensive network spanning 22985 kilometers with a capacity of 140.3 MMTPA. During the first half of FY 2023-24, the utilization of product pipelines reached 69.5%, an increase from 68% in FY 2022-23. The installed capacity of the Product/LPG pipeline increased by 23.1 MMTPA during the first half of FY 2023-24.

Oil & Gas Infrastructure & Pipeline Network in India



**LEGENDS**

**Refineries**

Refineries (Capacity in MTPA)

**Producing Fields**

Major Producing Fields

**LNG Terminals**

- Dabhol, Dahej, Hazira, Kochi, Mundra, Ennore
- (Upcoming Terminals) Dhamra, Jafraabad, Jaigarh, Chhara

**LEGENDS**

**Pipelines Network**

- Crude Oil Pipeline
- Ongoing Crude Oil Pipeline
- Product Pipeline
- Ongoing Product Pipeline
- LPG Pipeline
- Ongoing LPG Pipeline
- Gas Pipeline
- Ongoing Gas Pipeline

\* Pipeline Map is indicative only

**Table 5.1: Natural Gas Pipelines in the Country (operational)- 01.10.2023**

S. No.	Network/Region	Entity	Length (Kms)	Authroized capacity/ Declared capacity (MMSCMD)	Pipeline size	Pipeline Status	Average flow Apr-Mar 2023 (P) (mmscmd)	% Capacity utilisation Apr-Mar 2023 (P)	Average flow April-September 2022 (mmscmd)	% Capacity utilisation Apr-Sep 2022 (P)	Average flow April-September 2023 (mmscmd)	% Capacity utilisation Apr-Sep 2023 (P)
1	Assam Natural Gas Pipeline Network	Assam Gas Company Limited (AGCL)	106.713	2.428	800 mm/ 500 mm/ 400 mm/ 350 mm	Operational	1.50	61.6%	1.15	47.4%	1.77	73%
2	Cauvery Basin Network	GAIL	272	4.33	18"/ 12"/ 8"/ 6"/ 4"/ 3"/ 2"	Operational	1.85	42.7%	2.01	46.4%	1.95	45%
3	KG Basin Network	GAIL	917	15.99	18"/ 16"/ 14"/ 12"/ 8"/ 6"/ 4"/ 2"	Operational	3.83	24.0%	4.63	28.9%	4.19	26%
4	Gujarat Regional Network	GAIL	615	8.31	24"/ 18"/ 14"/ 12"/ 8"/ 6"/ 5"/ 2"/ 1"	Operational	3.09	37.2%	3.16	38.0%	1.22	15%
5	Agartala Regional Network	GAIL	65	2.00	12"/ 10"/ 8"	Operational	0.99	49.5%	0.89	44.5%	0.99	49%
6	Kochi-Koottanad-Bangalore-Mangalore #	GAIL	642	12.00	30"/ 24"/ 18"/ 8"/ 4"	"Under Construction / Part Operational"	3.29	27.4%	3.02	25.2%	3.02	28%
7	Hazira-Vijaipur-Jagdishpur -GREP (Gas Rehabilitation and Expansion Project)-Dahej-Vijaipur HVJ/VDPL	GAIL	6725	107	42"/ 36"/ 30"/ 18"/ 16"/ 14"/ 12"/ 10"/ 8"/ 6"/ 4"/ 2"	Operational	72.54	67.8%	72.75	68.0%	107.49	##
	Dahej-Vijaipur (DVPL)-Vijaipur-Dadri (GREP) Upgradation DVPL 2 & VDPL	GAIL			48"/ 16"/ 12"	Operational						
	Dahej-Uran-Panvel-Dhabhol	GAIL	943	19.90	30"/ 24"/ 18"/ 12"/ 6"/ 4"	Operational	16.33	82.1%	16.97	85.3%		
	Mumbai Regional Network	GAIL	125	7.04	26"/ 20"/ 18"/ 12"/ 4"	Operational	4.40	62.5%	4.34	61.7%		
	Chainsa-Jhajjar-Hissar	GAIL	442	35.00	36"/ 18"/ 16"/ 12"/ 10"/ 8"/ 4"	Operational	1.74	5.0%	1.75	14.6%		
	Dadri-Bawana-Nangal	GAIL	909	31.00	36"/ 30"/ 18"/ 10"/ 8"	Operational	7.51	24.2%	7.57	24.4%		
	Dabhol-Bangalore	GAIL	1148	16.00	36"/ 30"/ 24"/ 18"/ 10"/ 8"	Operational	1.86	11.6%	1.71	10.7%		
Jagdishpur-Haldia-Bokaro Dhamra-Paradip- Barauni-Guwahati #	GAIL	2383	7.44	36"/ 30"/ 24"/ 18"/ 12"/ 8"/ 6"/ 4"	"Under Construction / Part Operational"	5.21	70.0%	4.18	56.2%			
8	Hazira-Ankleshwar (HAP) 1	GGL	73.2	4.20	18"	Operational	0.75	17.7%	0.78	18.5%	0.50	12%
9	Mehsana - Bhatinda^	GIGL	1673	45.94	36"/ 24"/ 18"/ 12"	Partially Commissioned**	3.40	7.4%	3.23	7.0%	5.03	11%
10	Bhatinda - Gurdaspur\$	GIGL	261.42	33.93	24"/ 18"/ 16"/ 12"/ 8"/ 6"	Partially Commissioned\$	0.04	0.1%	0.05	0.1%	0.05	0%
11	Mallavaram - Bhopal - Bhilwara - Vijaipur#	GITL	2042	78.25	42"/ 36"/ 30"/ 24"/ 18"/ 12"	Under Construction	1.28	1.6%	1.93	2.5%	1.94	2%
12	High Pressure Gujarat Gas Grid	GSPL	2657.4	31	36"/ 30"/ 24"/ 20"/ 18"/ 12"/ 8"/ 6"/ 4"	Operational	27.00	62.8%	27.00	62.8%	29.47	95%
13	Low Pressure Gujarat Gas Grid	GSPL	57.6	12	36"/ 30"/ 24"/ 12"	Operational					5.70	47%
14	Dadri-Panipat	IOCL	132	9.50	30"	"Operational (141 Km )"	4.37	46.0%	4.81	50.6%	5.28	56%

S. No.	Network/Region	Entity	Length (Kms)	Authorized capacity/ Declared capacity (MMSCMD)	Pipeline size	Pipeline Status	Average flow Apr-Mar 2023 (P) (mmscmd)	% Capacity utilisation Apr-Mar 2023 (P)	Average flow April-September 2022 (mmscmd)	% Capacity utilisation Apr-Sep 2022 (P)	Average flow April-September 2023 (mmscmd)	% Capacity utilisation Apr-Sep 2023 (P)
15	Ennore-Thiruvallur-Bengaluru-Puducherry-Nagapattinam-Madurai-Tuticorn	IOCL	1421	84.67 (installed capacity 34)	30"/24"/18"/16"/14"/12"/8"/6"	"Under Construction / Part Operational (under operation 285 Km)"	3.24	13.17%*	3.17	20.8%	3.49	10%
16	Dahej-Koyali	IOCL	106	5.23	16"	Operational (106 Km)	1.05	20.1%	1.05	20.0%	2.01	38%
17	Uran - Trombay	ONGC	24	6.00	20"	Operational	2.81	46.8%	2.84	47.0%	3.10	52%
18	Kakinada- Bharuch Natural Gas Pipeline (erstwhile East - West Pipeline)	Pipeline Infrastructure Limited	1480	85.00	48"/30"/28"/24"/16"	Operational	23.68	27.9%	23.92	28.1%	30.63	36%
19	Shahdol-Phulpur	RGPL	304	3.50	16"	Operational	0.65	18.5%	0.67	19.0%	0.59	17%

Source: Pipeline entities.

**Note:**

1. GGL Pipeline - Pipeline capacity as determined by GGL
2. GSPL/GIGL/GITL pipelines

\*Natural Gas flowing through (i) Barmer - Pali - Palanpur Pipeline (ii) Pali - Ajmer - Jaipur - Sikar - Hanumangarh - Sirsa - Bhatinda Pipeline (iii) Hanumangarh - Sonipat - Panipat Pipeline

\*\*1186 km of the pipeline commissioned, approx. 42 km of the pipeline is completed, approx. 5.52 km of mainline and approx. 17 km of spurline in Punjab is pending due to persistent RoU issues \$101 km of Jalandhar Amritsar pipeline commissioned, approx. 10 km of spurline in Punjab completed, approx. 20 km is pending due to RoU issues.

# Please note that the gas is flowing through 365 km x 18" pipeline Kunchanapally in Andhra Pradesh to RFCL, Ramagundam in Telanagana State which was commissioned on 14.10.2019

3. Pipeline Infrastructure Limited Pipeline:

1) For the period April 2022 - March 2023 conversion factor of 37000 Btu/SCM is used for computing volumes in MMSCMD. While, For the period April 2021 - March 2022 conversion factor of 38263.11 Btu/SCM is used for computing volumes in MMSCMD.

2) The capacity above (85 MMSCMD) is as per the authorization letter issued by PNGRB for Kakinada - Bharuch Natural Gas Pipeline (erstwhile East-West Pipeline). Last re-assessed capacity determined by PIL and submitted to PNGRB is 74.83 MMSCMD.

4. GAIL

## Capacity of commissioned section \*\*w.e.f 1st Apr 2023, GAIL's INtegrated Pipeline has been implemented. Capacity of INGPL is yet to be declared by PNGRB. Therefore % Utilization data is not available. \*\*Total flow will not match with sum of individual pipeline network flow as some quantity have travelled more than one pipeline network. ##Dedicated pipelines are for connecting multiple end customers having different capacities. Therefore, Arithmetic Summation of all individual capacities is invalid due to which % capacity utilization cant be calculated.

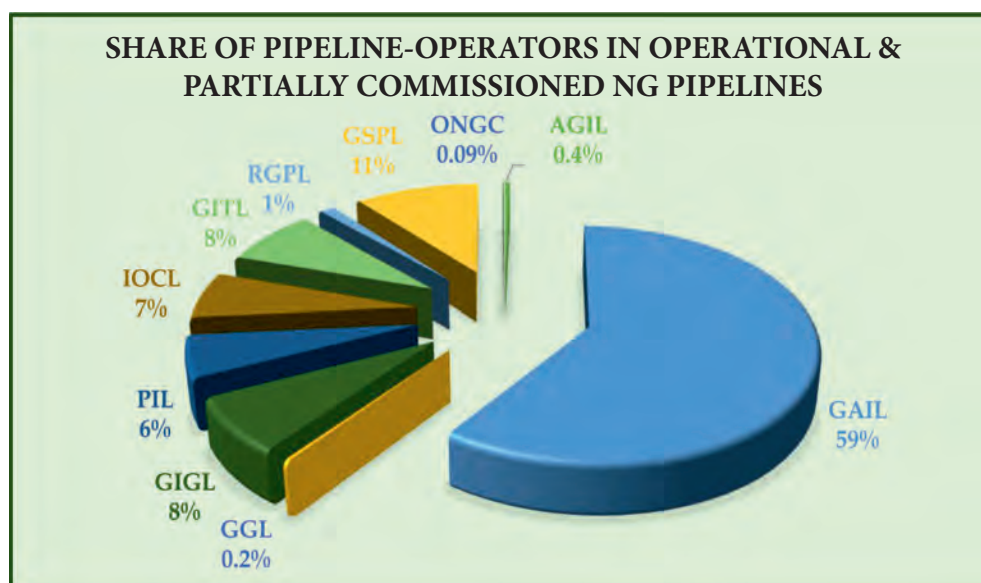
GAIL Integrated Pipeline(INGPL) consist of following Pipelines of GAIL:

1. Integrated Hajira Vijapur Jagdishpur 2. Dahej Urban and Dabhol Parvel 3. Mumbai Regional Network 4. Chainsa-Jhajjar-Hissar 5. Dadri-Bawana-Nangtal 6. Dabhol-Bangalore 7. Jagdishpur-Haldia-Bokaro-Dhamra-Paradip-Barauni-Guwhati 8. Baroda Sub Network

\*Total flow will not match with sum of individual pipeline network quantity as some quantity have travelled more than one pipeline network.

5. IOCL

\*Capacity Utilisation based on pro-rata commissioning of new sections.



**Table 5.2 : Existing major crude oil pipelines in India**

Type of Pipeline -Onshore/ Offshore	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during
			30.09.2023	30.09.2023	Apr-Sep 2023(P)	Apr-Sep 2023(P)
Onshore	CTF (Central Tank Farm) Kalol to CTF Nawagam - New	ONGC	63	3.1	0.4	27.9
Onshore	Nawagam-Koyali (18" line) New		80	5.4	1.9	70.7
Onshore	Nawagam-Koyali (14" line) ( Old)		78	3.3	0.0	0.0
Onshore	Mehsana-Nawagam trunk line - New		77	2.3	1.1	95.7
Onshore	CTF, Ankleshwar to Koyali oil pipeline		95	2.2	0.3	22.9
Onshore	CTF, Ankleshwar to CPF (Central Processing Facility), Gandhar		44	0.4	0.0	0.0
Onshore	CPF, Gandhar to Saraswani 'T' point		57	1.8	0.2	20.6
Onshore	Akholjuni- Koyali oil pipe line. Akholjuni to Laxmipura T' point		66	0.5	0.1	61.6
Onshore	Lakwa-Moran oil line (New)		15	1.5	0.3	35.5
Onshore	Lakwa-Moran oil line (Old)		18	1.5	0.0	0.0
Onshore	Geleki-Jorhat oil line		49	1.5	0.0	0.0
Onshore	Geleki-Jorhat oil line (New)		48	1.5	0.2	20.2
Onshore	Borholla- Jorhat oil line		43	0.6	0.0	0.0
Onshore	Borholla- Jorhat new TPL (New)		43	0.6	0.1	35.3
Onshore	NRM (Narimanam) to CPCL		5	0.7	0.0	0.0
Onshore	KSP-WGGS to TPK Refinery		14	0.1	0.03	61.8
Onshore	GMAA EPT		4	0.1	0.02	50.3
Offshore	Mumbai High - Uran - Trunk (MUT) 30" pipeline		204	15.6	1.6	20.0
Offshore	Heera - Uran - Trunk (HUT) 24" pipeline		81	11.5	3.0	52.3
Offshore	Bombay-Uran Trunk (BUT) 30" pipeline		203	6.4	0.7	20.9
	<b>Sub total ONGC</b>		<b>1284</b>	<b>60.6</b>	<b>9.8</b>	<b>32.4</b>
Onshore	Salaya-Mathura pipeline (SMPL)	IOCL	2646	25.0	13.5	108.3
Onshore	Paradip-Haldia-Barauni pipeline (PHBPL)		1873	20.4	8.5	83.1
Onshore	Mundra-Panipat pipeline		1194	8.4	3.5	82.6
Offshore	Salaya Mathura Pipeline ( Offshore segment)		14	-	0.0	-
Offshore	Paradip Haldia Barauni Pipeline ( Offshore segment)		92	-	0.0	-
	<b>Sub total IOCL</b>		<b>5819</b>	<b>53.8</b>	<b>25.5</b>	<b>94.7</b>
Onshore	Duliajan-Digboi-Bongaigaon-Barauni pipeline	OIL	1193	9.0	3.1	69.4
Onshore	Mangla-Bhogat pipeline	CAIRN	660	8.7	2.4	54.1
Offshore	Bhogat Marine	CAIRN	28	2.0	0.6	61.2
	<b>Sub total CAIRN</b>		<b>688</b>	<b>10.7</b>	<b>3.0</b>	<b>55.4</b>
Onshore	Mundra- Bathinda pipeline	HMPL	1017	11.3	6.6	116.7
Onshore	Vadinar-Bina pipeline	BPCL	937	7.8	3.0	77.6
	<b>Total Crude pipelines</b>		<b>10938</b>	<b>153.1</b>	<b>51.0</b>	<b>66.6</b>

Source : Oil companies (P): Provisional

Notes: Figures are rounded off

Pipeline utilisation is calculated using formula = (Throughput in MMT \* 100) / (Annual capacity in MMTPA\*0.5)

IOCL

1) Haldia-Barauni section of Paradip Haldia Barauni Pipeline commissioned on 27th July 2023 (Commissioned section length = 518 km, Dia = 30", Capacity of PHBPL increased from 15.2 to 20.4 MMTPA)



5.3 Existing major POL pipelines in India

Type of Pipeline -Onshore/ Ofshore	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during	
			30.09.2023	30.09.2023	Apr-Sep 2023(P)	Apr-Sep 2023(P)	
<b>Petroleum Products Pipelines</b>							
Onshore	Barauni - Kanpur pipeline	IOCL	1227	3.5	2.1	118.1	
Onshore	Guwahati -Siliguri pipeline		435	1.4	1.0	139.7	
Onshore	Haldia-Barauni pipeline		526	1.3	0.8	127.8	
Onshore	Haldia-Mourigram-Rajbandh pipeline		277	1.4	1.0	152.9	
Onshore	Koyali-Ahmedabad pipeline		79	1.1	0.4	81.6	
Onshore	Koyali-Jaipur-Panipat pipeline		1644	5.0	2.5	98.7	
Onshore	Koyali-Ratlam pipeline		265	2.0	0.7	74.8	
Onshore	Koyali-Dahej pipeline		197	2.6	0.3	25.2	
Onshore	Mathura-Agra-Gawria pipeline		311	4.0	0.8	38.0	
Onshore	Mathura-Bharatpur pipeline		21	1.2	0.1	14.0	
Onshore	Mathura-Delhi pipeline		147	3.7	1.1	60.9	
Onshore	Panipat-Amabala-Jalandhar (Including Kurukshetra-Roorkee-Najibabad branch line)		495	3.5	1.5	88.5	
Onshore	Panipat-Delhi (Including Sonapat-Meerut branch line) pipeline		189	3.0	0.1	5.5	
Onshore	Panipat Bijwasan ATF pipeline		111	1.0	0.6	111.4	
Onshore	Panipat-Bathinda pipeline		219	3.0	0.9	59.3	
Onshore	Panipat-Rewari pipeline		155	2.1	0.8	72.4	
Onshore	Chennai-Trichy-Madurai pipeline		683	3.9	1.5	75.1	
Onshore	Chennai - Meenambakkam ATF pipeline		95	0.2	0.1	153.3	
Onshore	Chennai-Bengaluru pipeline		290	2.5	1.2	94.4	
Onshore	Devangonthi - Devanhalli pipeline		36	0.7	0.3	81.5	
Onshore	Paradip Raipur Ranchi pipeline(PRRPL)		1073	5.0	2.2	88.0	
Onshore	Kolkata ATF Pipeline		27	0.2	0.1	68.0	
Onshore	Lucknow ATF Pipeline		6	0.2	0.05	43.8	
Onshore	Paradip Hyderabad Pipeline		958	4.5	0.2	8.6	
Onshore	Paradip-Somnathpur-Haldia Pipeline (2)		341	4.6	0.1	2.2	
Onshore	Koyali-Ahmednagar-Solapur Pipeline (4)		515	5.0	0.3	12.1	
Onshore	18" HBPL (Haldia - Barauni) Conversion Project (3)		10	0.0	0.0	-	
	<b>Sub total IOCL</b>			<b>10332</b>	<b>66.4</b>	<b>20.6</b>	<b>61.9</b>
Onshore	Mumbai-Manmad-Bijwasan pipeline (MMBPL)		BPCL	1392	6.0	3.9	130.9
Onshore	Bina-Kota pipeline (BKPL)			259	4.4	1.2	53.2
Onshore	Bina Panki Pipeline	355		3.5	0.8	43.9	
Onshore	ATF P/L Mumbai Refinery (MR)-Santacruz	15		1.0	0.3	68.1	
Onshore	ATF P/L Kochi Refinery (KR)-Kochi Airport	34		0.6	0.2	67.6	
Onshore	Kota - Jobner branch pipeline(1)	211		1.7			
Onshore	Mumbai Refinery- Wadilube Pipeline	12		1.3	0.2	28.0	
Onshore	Cochin-Coimbatore-Karur (CCK) pipeline (2)	293		3.3	2.0	123.2	
	<b>Sub total BPCL</b>			<b>2571</b>	<b>21.8</b>	<b>8.6</b>	<b>79.1</b>
Onshore	Mumbai-Pune-Solapur pipeline	HPCL	508	4.3	1.8	83.5	
Onshore	Vizag-Vijaywada-Secunderabad pipeline (6)		572	7.7	2.9	76.3	
Onshore	Mundra-Delhi pipeline (1)		1054	6.9	2.3	68.0	
Onshore	Ramanmandi-Bahadurgarh pipeline (2)		243	7.1	3.0	83.6	
Onshore	Ramanmandi-Bathinda pipeline		30	2.1	0.7	65.3	
Onshore	Awa-Salawas pipeline		93				
Onshore	Bahadurgarh-Tikrikalan pipeline		14				
Onshore	Rewari- Kanpur Pipeline		443				



## PPAC READY RECKONER

Type of Pipeline -Onshore/ Ofshore	Name of the pipeline	Owner	Length (KM)	Capacity (MMT)	Throughput (MMT)	Percentage utilisation during
			30.09.2023	30.09.2023	Apr-Sep 2023(P)	Apr-Sep 2023(P)
Onshore	ATF pipeline from Mumbai Refinery to Mumbai Airport		20	0.5	0.2	88.2
Onshore	Black Oil Pipeline (BOPL)		22	1.5	0.8	104.9
Onshore	Lube Oil Pipeline : Trombay to Wadibundar (3)		17	1.0	0.3	51.7
Onshore	Palanpur-Vadodara Pipeline		235			
Onshore	Vijaywada Dharmapuri (VDPL) Pipeline		697			
		<b>Sub total HPCL</b>	<b>3947</b>	<b>31.1</b>	<b>12.0</b>	<b>77.2</b>
Onshore	Mangalore-Hassan-Bengaluru (MHB) pipeline (1)	Petronet MHB	363	5.6	2.1	73.3
Onshore	Numaligarh-Siliguri pipeline	OIL	654	1.7	0.4	43.1
<b>Total Petroleum product pipelines (w/o LPG pipelines )</b>			<b>17867</b>	<b>126.6</b>	<b>43.6</b>	<b>68.9</b>
<b>LPG Pipelines</b>						
Onshore	Panipat-Jalandhar pipeline	IOCL	280	0.7	0.3	88.0
Onshore	Paradip Haldia Barauni Motihari pipeline (1)		1598	3.5	1.0	56.9
		<b>Sub total IOCL</b>	<b>1878</b>	<b>4.2</b>	<b>1.3</b>	<b>62.1</b>
Onshore/ offshore	Mumbai-Uran pipeline	BPCL	28	0.8	0.3	78.9
Onshore	Jamnagar-Loni pipeline	GAIL	1427	3.3	1.6	98.1
Onshore	Vizag-Secunderabad pipeline		609	1.3	0.6	88.9
		<b>Sub total GAIL</b>	<b>2036</b>	<b>4.6</b>	<b>2.2</b>	<b>95.4</b>
Onshore	Mangalore-Hassan-Mysore-Bangalore LPG (5)	HPCL	356	3.1	0.9	55.4
Onshore	Uran-Chakan-Shikrapur LPG Pipeline (4)		171	1.0	0.5	94.9
Onshore	Hassan-Cherlapalli LPG Pipeline		649			
		<b>Sub total HPCL</b>	<b>1176</b>	<b>4.1</b>	<b>1.3</b>	<b>65.0</b>
<b>Total LPG pipelines</b>			<b>5118</b>	<b>13.7</b>	<b>5.1</b>	<b>75.1</b>
<b>Total POL pipelines</b>			<b>22985</b>	<b>140.3</b>	<b>48.8</b>	<b>69.5</b>

Source : Oil Companies (P): Provisional

Notes: Figures are rounded off

Pipeline utilisation is calculated using formula = (Throughput in MMT \* 100) / (Annual capacity in MMTPA\*0.5)

IOCL

(1) Hatidah - Muzaffarpur section (10") of PHBMPL (LPG Pipeline) commissioned on 17th May 2023, adding a length of 130 km to existing pipeline

(2) Somnathpur-Haldia section (18") of PSHPL commissioned on 7th August 2023 with a length of 176 km

(3) PSHPL Haldia - Haldia refinery section (18" HBPL Conversion Project) of 18" HBPL conversion project commissioned on 8th August 2023 with a length of 10 km

(4) Manmad-Ahmednagar section (18") of KASPL commissioned on 25th August 2023 with a length of 163 km

BPCL

(1) Kota-Jobner pipeline is a branch pipeline of Mumbai-Manmad-Bijwasan pipeline with annual capacity of 1.7 MMTPA.Throughput of this pipeline is included in MMBPL & BKPL pipeline.

(2) Petronet CCK was merged with BPCL w.e.f 1st June 2018

HPCL

(1) Thruput of Mundra-Delhi Pipeline is including thruputs of branchlines viz. Awa Salawas Pipeline, Rewari Kanpur pipeline & Palanpur Vadodara Pipeline

(2) Thruput of Ramanmandi Bahadurgarh Pipeline is including thruput of branchlines viz. Bahadurgarh-TikriKalan Pipeline & Rewari-Kanpur Pipeline.

(3) Lube Oil Pipeline and ATF Pipeline from Mumbai Refinery to Mazgaon Terminal and Mumbai Airport are Speciality Product Pipelines.

(4) Thruput of UCSPL includes both HPCL & BPCL volumes.

(5) Thruput of Mangalore Bangalore Pipeline includes thruput of branchline viz Hassan Cherlapally pipeline

(6) Thruput of Vizag Vijaywada Secunderabad pipeline includes thruput of branchline viz Vijaywada Dharmapuri Pipeline

Petronet MHB

(1) Petronet MHB JV- ONGC & HPCL 26% each, Petronet- 12%, Public- 36%.

# Chapter-6

# Sales





## Chapter - Highlights

### Sales

- Overall consumption of POL for the period Apr-Sept' 2023-24 in the Country was recorded at 114.3 MMT, a new high, with a growth of 6.4% over the previous financial year. Growth in the petroleum products is driven by growth in High Speed Diesel (HSD) at 6.3%, the largest contributor at 38.5% to POL consumption. Motor Spirit (MS), the 2nd largest contributor at 16.2% share in POL basket grew by 6.3% during the period over the previous year.
- The sales of Aviation Turbine Fuel (ATF) during Apr-Sept'23 continued its growth journey with a growth of 13.2%, however recovered to 96.7% of the pre pre-pandemic high of 2018-19.
- The country crossed Ethanol Blending in Petrol of 12% during the current ESY Dec'22-Oct'23 achieving 12.1% on cumulative basis.
- The Retail network in the Country reached 87984 as on 01.10.2023, with 24877 of these set up in rural areas.
- More than 16% of total outlets have alternate fuels at 14163 Retail Outlets across the Country and of these 9576 outlets offer EV charging facilities to commuters
- Direct Sales HSD volumes recovered to 5139 TMT, at 11.7% of the total HSD volumes of 43.99 TMT.
- International aviation contributed to 24% of the total ATF volumes of 3966 TMT during Apr-Sept'23, against 23% in the corresponding period of the previous year with total volumes of 3503 TMT.
- 317 depots and terminals spread throughout the country ensure uninterrupted supply of fuels to consumers.

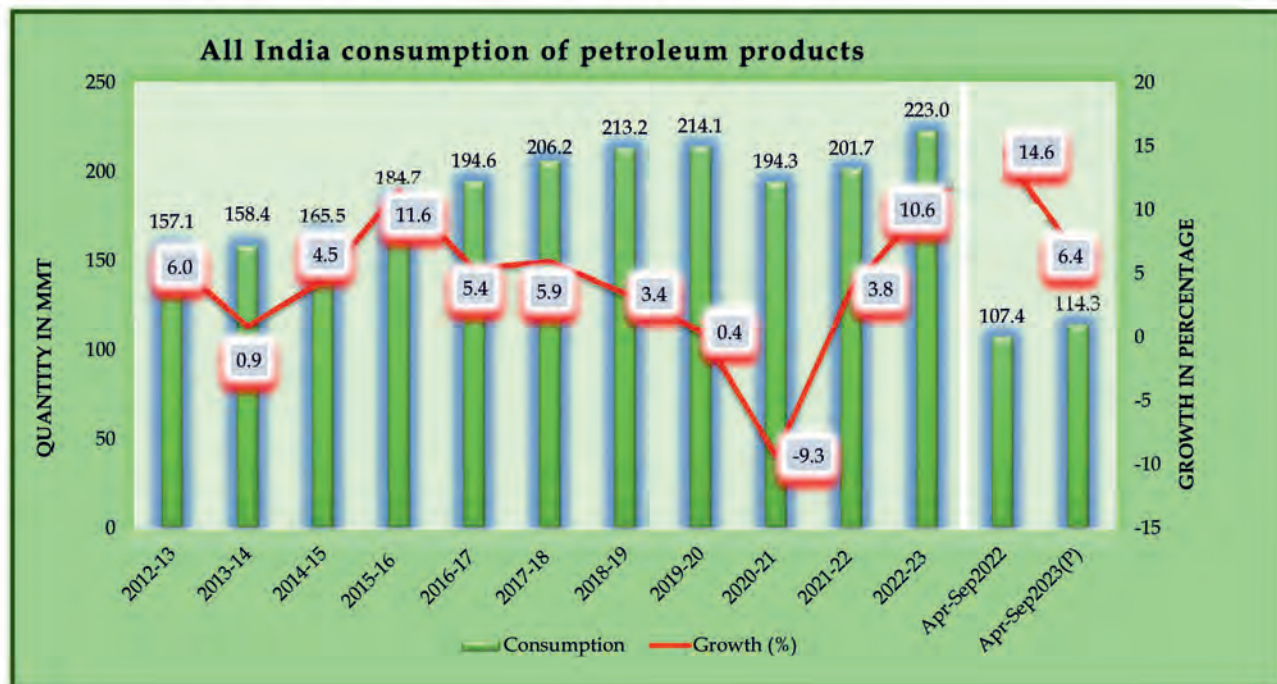
**Table 6.1 : Consumption of petroleum products**

(Million metric tonne)

Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	H1 FY 2022-23	H1FY 2023-24 (P)	Decadal Sparkline (FY 12-13 to FY 22-23)
LPG	15.6	16.3	18.0	19.6	21.6	23.3	24.9	26.3	27.6	28.3	28.5	13.8	14.1	
MS	15.7	17.1	19.1	21.8	23.8	26.2	28.3	30.0	28.0	30.8	35.0	17.4	18.5	
Naphtha	12.3	11.3	11.1	13.3	13.2	12.9	14.1	14.3	14.1	13.2	12.1	6.0	6.6	
ATF	5.3	5.5	5.7	6.3	7.0	7.6	8.3	8.0	3.7	5.0	7.4	3.5	4.0	
SKO	7.5	7.2	7.1	6.8	5.4	3.8	3.5	2.4	1.8	1.5	0.5	0.3	0.3	
HSD	69.1	68.4	69.4	74.6	76.0	81.1	83.5	82.6	72.7	76.7	85.9	41.4	44.0	
LDO	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.9	1.0	0.7	0.4	0.4	
Lubes	3.2	3.3	3.3	3.6	3.5	3.9	3.7	3.8	4.1	4.5	3.7	1.7	2.0	
FO/LSHS	7.7	6.2	6.0	6.6	7.2	6.7	6.6	6.3	5.6	6.3	7.0	3.4	3.3	
Bitumen	4.7	5.0	5.1	5.9	5.9	6.1	6.7	6.7	7.5	7.8	8.0	3.2	4.1	
Petcoke	10.1	11.8	14.6	19.3	24.0	25.7	21.3	21.7	15.6	14.3	18.3	8.8	9.7	
Others*	5.5	6.0	5.9	6.4	6.6	8.3	11.7	11.4	12.8	12.3	15.8	7.6	7.4	
<b>All India</b>	<b>157.1</b>	<b>158.4</b>	<b>165.5</b>	<b>184.7</b>	<b>194.6</b>	<b>206.2</b>	<b>213.2</b>	<b>214.1</b>	<b>194.3</b>	<b>201.7</b>	<b>223.0</b>	<b>107.4</b>	<b>114.3</b>	
<b>Growth (%)</b>	<b>6.0</b>	<b>0.9</b>	<b>4.5</b>	<b>11.6</b>	<b>5.4</b>	<b>5.9</b>	<b>3.4</b>	<b>0.4</b>	<b>-9.3</b>	<b>3.8</b>	<b>10.6</b>	<b>14.6</b>	<b>6.4</b>	

Notes: \*Others' include sulphur, propylene, propane, reformat, butane, MTO (Mineral Turpentine oil) etc.

Source: Oil Companies, Directorate General of Commercial Intelligence and Statistics (DGCIS) & online SEZ data (included from 2017-18 onwards). (Oil company sales+Private imports+SEZ sales to DTA= Consumption); Private direct import data has been prorated for September-23, which may change under receipt of actual data



The consumption of petroleum products has gone up from 77.7 MMT in H1FY2013-14 to 114.3 MMT in H1FY2023-24. This H1FY2023-24 POL consumption is the highest H1 consumption ever. The CAGR of total POL consumption in the last decade for the period April-September FY2023-24 marked 3.9%. Individual Product wise, consumption based decadal-CAGR was highest in 'Others' category, registering 9.2% followed by MS (8.1%), LDO (7.1%), Bitumen (7%), LPG (6.3%), Petcoke (5.5%), ATF (4%), HSD (2.7%), Lubes (2.5%), Naphtha (1.6%) and FO & LSLS (0.3%). Negative H1-CAGR in the last decade was observed only in the consumption of SKO (23.2%) due to promotion of LPG and other cleaner cooking fuel.

**Table 6.2 : Consumption growth of petroleum products**

(Growth in percentage)

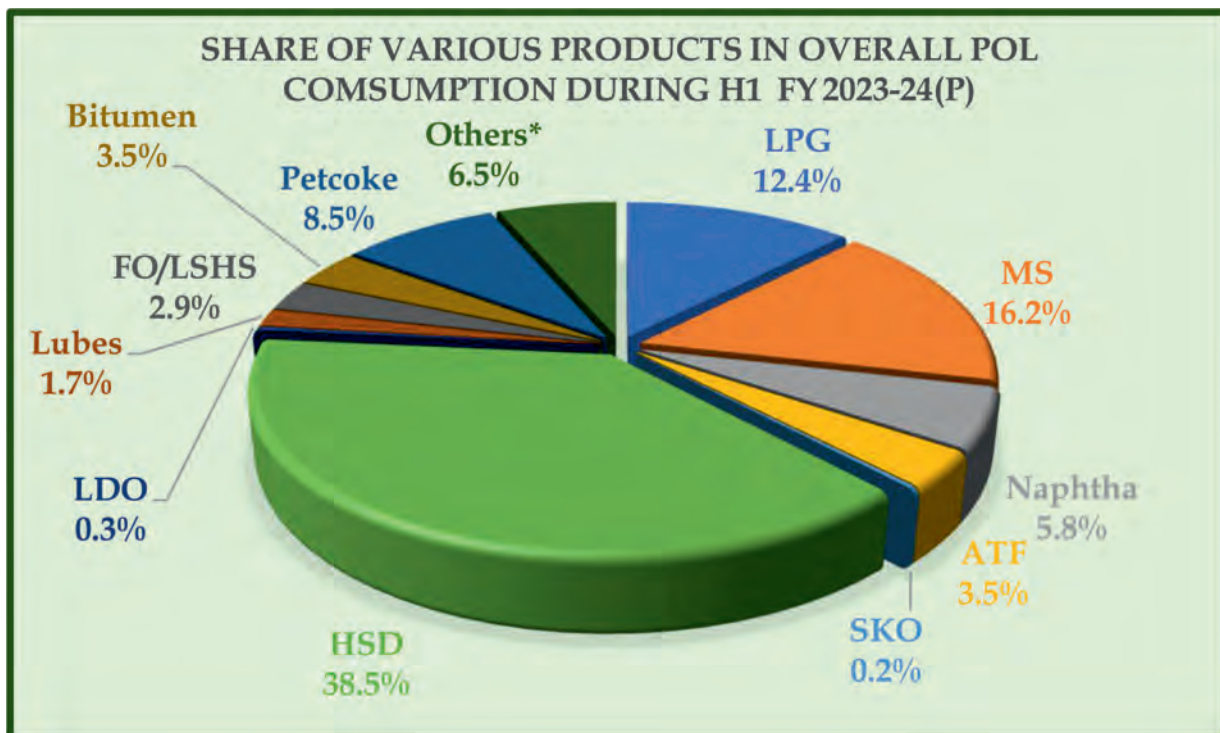
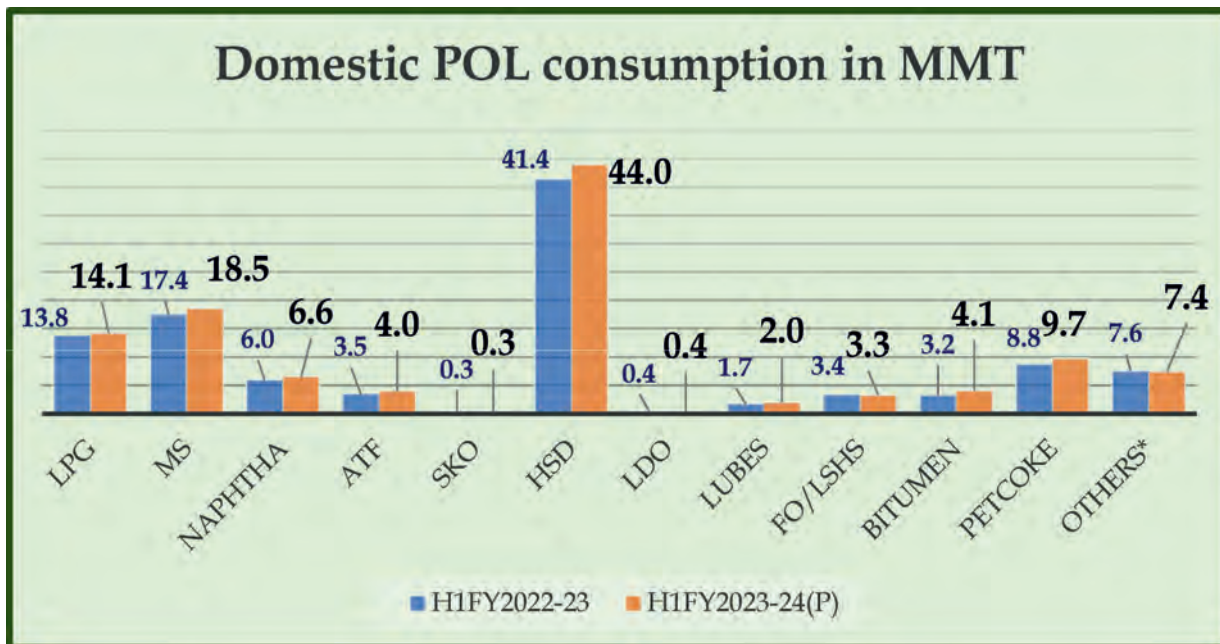
Products	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	H1 FY 2022-23	H1 FY 2023-24 (P)	CAGR calculated H1FY13-14 vs H1FY23-24
LPG	1.6	4.4	10.5	9.0	10.1	8.0	6.7	5.7	4.7	2.5	0.9	1.7	2.6	6.3
MS	5.0	8.8	11.4	14.5	8.8	10.1	8.1	6.0	-6.7	10.3	13.4	18.5	6.3	8.1
Naphtha	9.5	-8.0	-2.0	19.8	-0.2	-2.7	9.6	1.0	-1.2	-6.1	-8.4	-7.8	10.2	1.6
ATF	-4.8	4.4	4.0	9.4	11.7	9.1	8.7	-3.7	-53.8	35.4	47.3	71.7	13.2	4.0
SKO	-8.8	-4.5	-1.1	-3.7	-20.9	-28.8	-10.0	-30.7	-25.0	-16.9	-67.2	-63.4	-8.7	-23.2
HSD	6.7	-1.0	1.5	7.5	1.8	6.6	3.0	-1.1	-12.0	5.4	12.1	16.1	6.3	2.7
LDO	-3.9	-3.1	-5.4	11.5	10.3	16.7	14.2	5.0	36.2	19.0	-28.7	-31.1	12.6	7.1
Lubes	21.4	3.4	0.1	7.9	-2.8	11.9	-5.6	4.5	6.9	10.8	-17.7	-15.7	14.3	2.5
FO/LSHS	-17.7	-18.6	-4.4	11.3	7.8	-6.0	-2.3	-4.0	-11.3	12.1	11.1	14.3	-2.8	0.3
Bitumen	0.8	7.1	1.3	17.1	0.0	2.5	10.2	0.2	12.0	3.9	2.9	1.9	25.0	7.0
Petcoke	65.1	16.0	23.8	32.6	24.2	7.1	-16.8	1.7	-28.1	-8.6	28.7	52.1	10.8	5.5
Others	11.9	8.1	-1.4	8.2	3.8	26.5	40.6	-3.0	12.6	-3.9	28.8	24.8	-2.3	9.2
<b>All India</b>	<b>6.0</b>	<b>0.9</b>	<b>4.5</b>	<b>11.6</b>	<b>5.4</b>	<b>5.9</b>	<b>3.4</b>	<b>0.4</b>	<b>-9.3</b>	<b>3.8</b>	<b>10.6</b>	<b>14.6</b>	<b>6.4</b>	<b>3.9</b>

Notes: \*Others include sulphur, propylene, propane, reformat, butane, MTO (Mineral Turpentine oil) etc.

Source: Oil Companies, Directorate General of Commercial Intelligence and Statistics (DGCIS) &amp; online SEZ data (included from 2017-18 onwards). (Oil company sales+Private imports+SEZ sales to DTA=Consumption); Private direct import data has been prorated for September-23, which may change under receipt of actual data



Share of various products in overall POL consumption

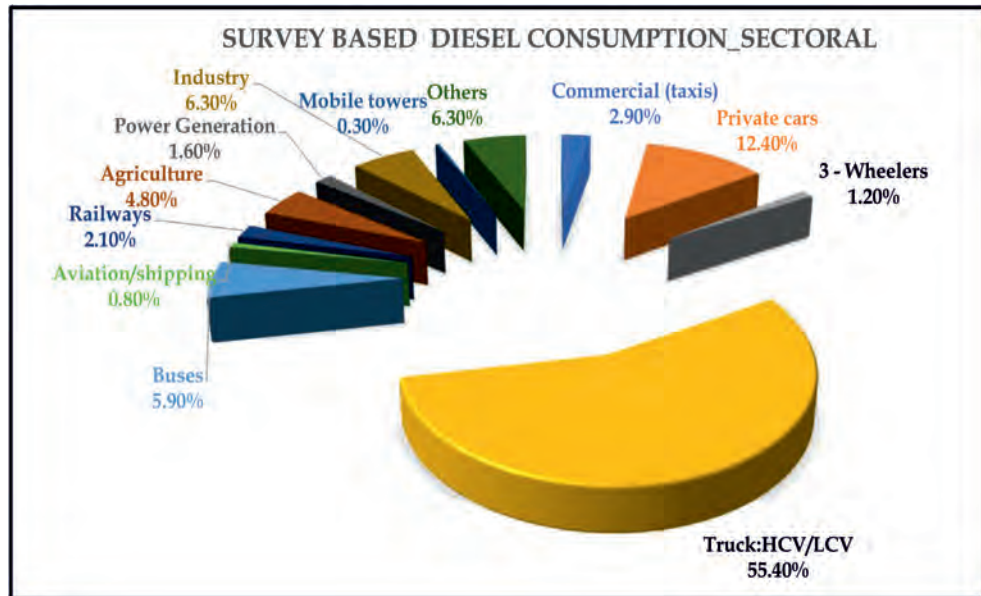


Notes: \*Others' include sulphur, propylene, propane, reformat, butane, MTO (Mineral Turpentine oil) etc.

End-use sectoral analysis of POL Domestic Consumption

End-use-analysis of HSD sales (Oct. 2020-Sep 2021) (PPAC survey based)

Sl. no.	End-use Sectors	% of total sales *
(I)	(II)	(III)
a	Commercial (taxis)	2.90
b	Private cars	12.40
c	3 - Wheelers	1.20
d	Truck:HCV/LCV	55.40
e	Buses	5.90
2	Aviation/shipping	0.80
3	Railways	2.10
4	Agriculture	4.80
	Power Generation	1.60
	Industry	6.30
5	Mobile towers	0.30
6	Others	6.30
	<b>Total</b>	<b>100.0</b>

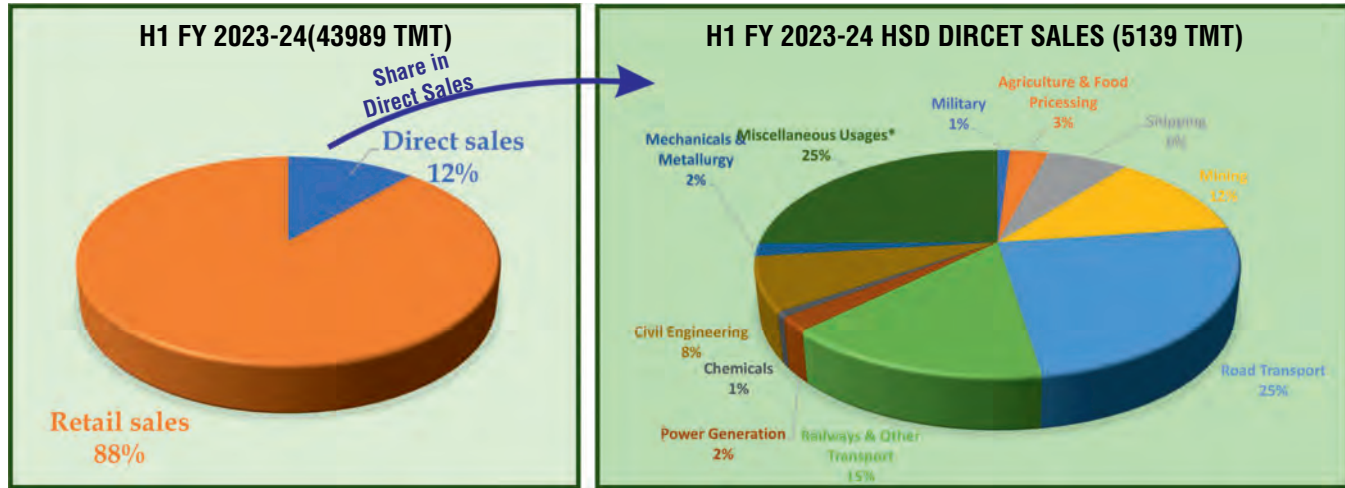


\*Figures include consumption through retail & direct imports  
 End use sector wise break up as per  
 PPAC survey and direct & retail sales as reported by oil companies during October-2020 till September-2021



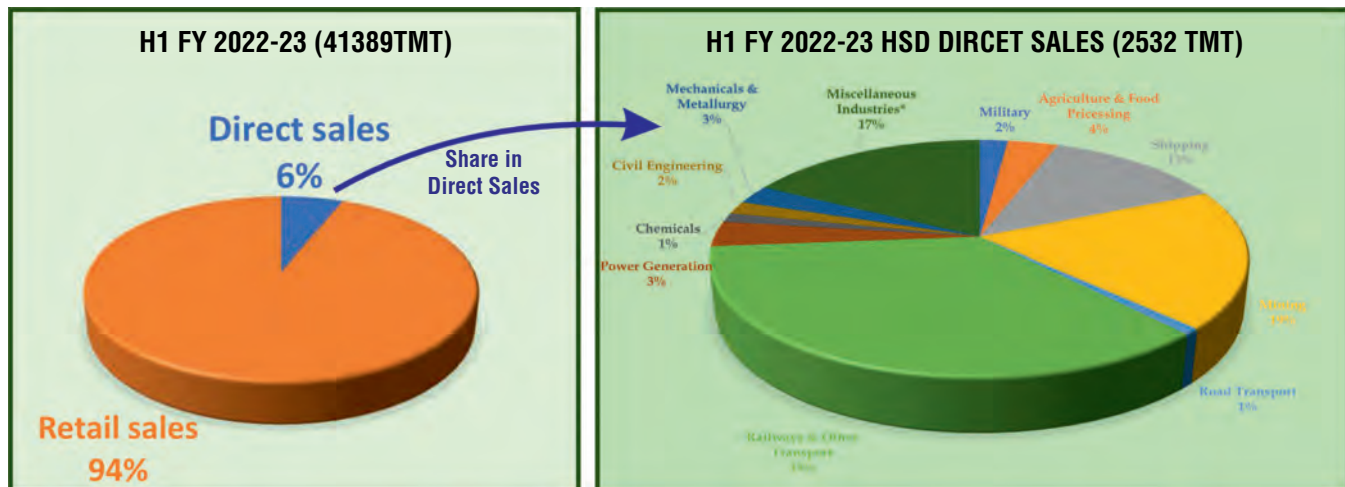


Sector wise HSD consumption for H1 FY 2023-24 & YoY comparison



FY2023-24:

Miscellaneous Industries (25%) includes 'Electricals/electronics' (0.09%), 'Textiles' (0.06%), 'Candle Industry' (0.007), 'Catering & Hotels' (0.04%), 'Galss & Ceramics' (0.04%), 'Abrasives & Others' (0.8%), 'Leather Industry' (0.007%), 'Matches Industry' (0.001), 'Other usages' (24.03%), 'Packing Materials' (0.02%), 'Paper & Plastic Industry' (0.04%), 'Post, Telegraphs and Processors' (0.005%), 'Rubber & Tyre Industry' (0.02%), 'State Electricity Boards' (0.02%), 'Tobacco Industries' (0.0002%) and 'Universities' (0.02%)

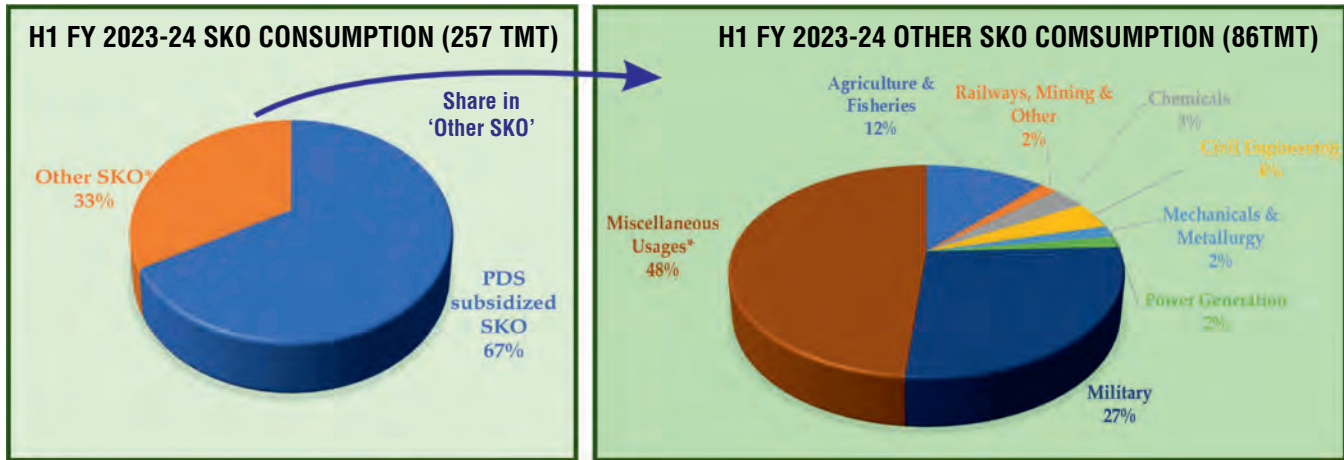


FY2022-23:

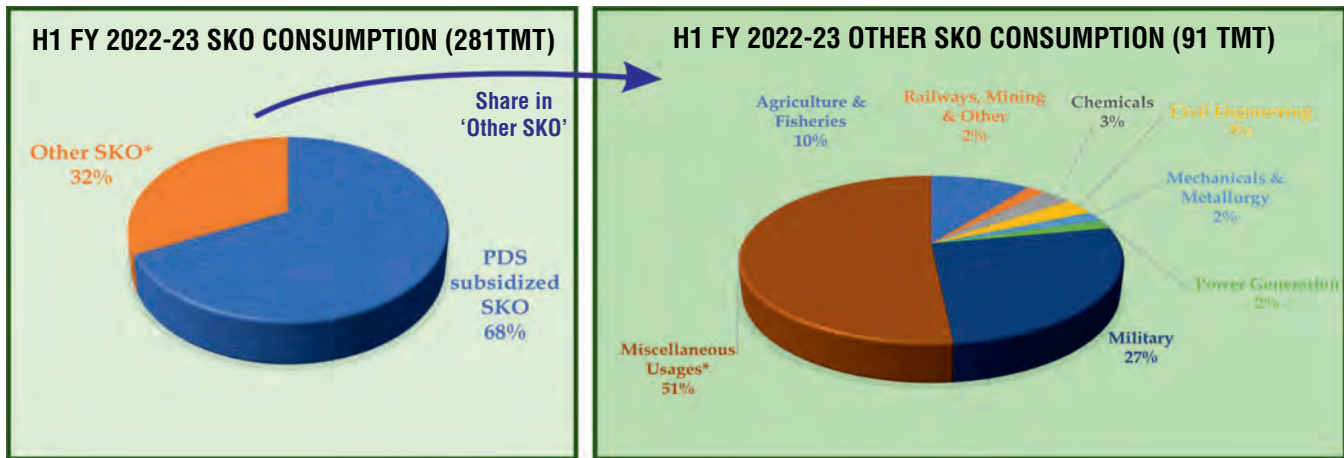
Miscellaneous Industries (17%) includes 'Electricals/electronics' (0.16%), 'Textiles' (0.06%), 'Candle Industry' (Nil), 'Catering & Hotels' (0.06%), 'Galss & Ceramics' (0.05%), 'Abrasives & Others' (0.19%), 'Leather Industry' (0.004%), 'Matches Industry' (Nil), 'Other usages' (16.58%), 'Packing Materials' (0.01%), 'Paper & Plastic Industry' (0.04%), 'Post, Telegraphs and Processors' (0.01%), 'Rubber & Tyre Industry' (0.03%), 'State Electricity Boards' (0.06%), 'Tobacco Industries' (0.0008%) and 'Universities' (0.03%)



Sector wise PDS Subsidized SKO & Other SKO consumption for H1 FY 2023-24 & YoY comparison

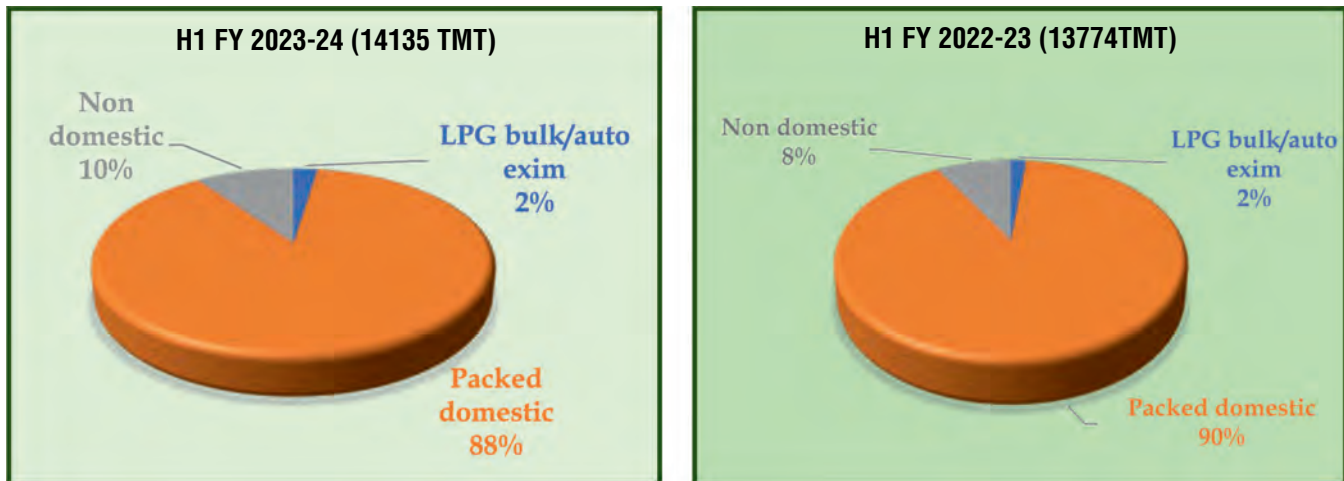


Other SKO includes 'Nonsubsidized PDS SKO', 'non-PDS SKO' and 'Imported SKO'  
 \*Miscellaneous Usages (48%) includes 'Electrical/electronics' (0.07%) and 'Other Industries' (47.3%)

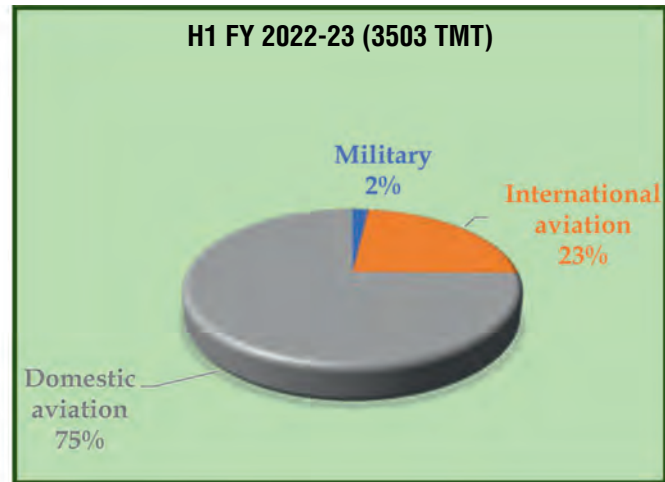
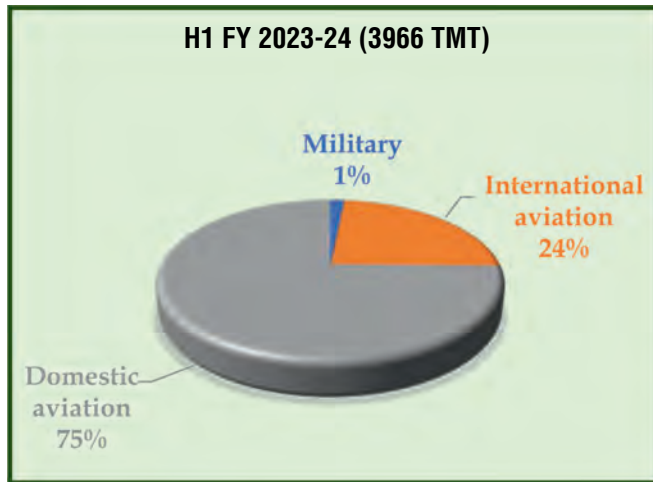


Other SKO includes 'Nonsubsidized PDS SKO', 'non-PDS SKO' and 'Imported SKO'  
 \*Miscellaneous Usages (51%) includes 'Electrical/electronics' (0.01%), 'Textiles' (0.05%) and 'Other Industries' (50.94%)

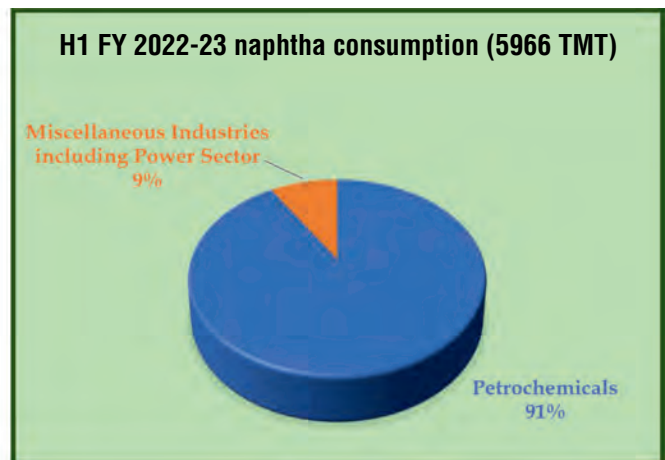
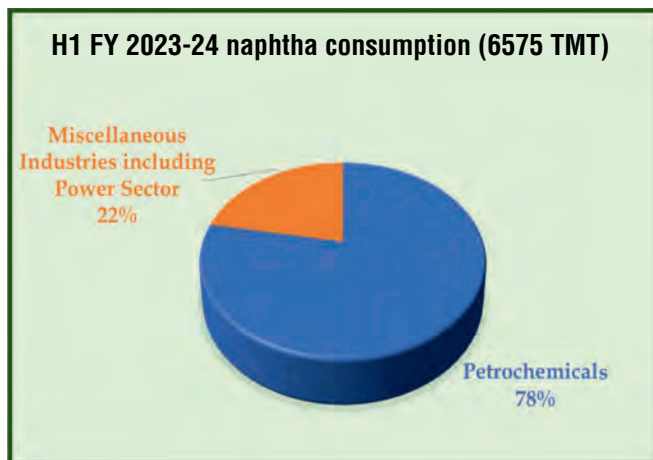
Sector wise LPG consumption for H1 FY 2023-24 & YoY comparison



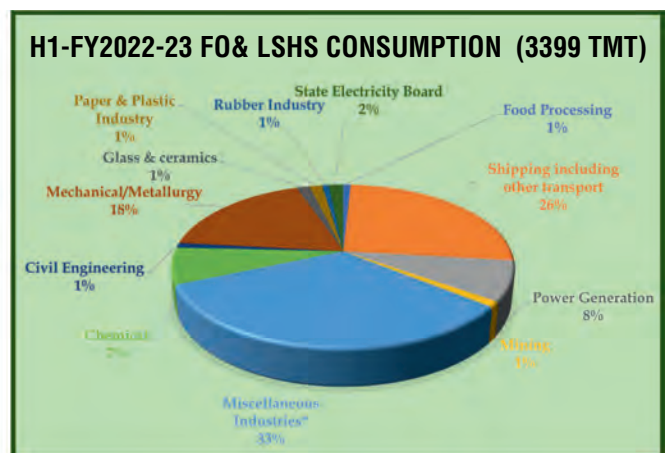
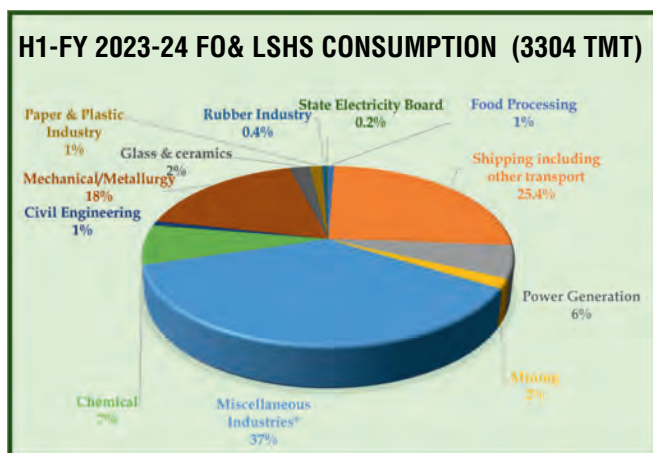
Sector wise ATF consumption for H1 FY 2023-24 & YoY comparison



Sector wise Naphtha consumption for H1 FY 2023-24 & YoY comparison



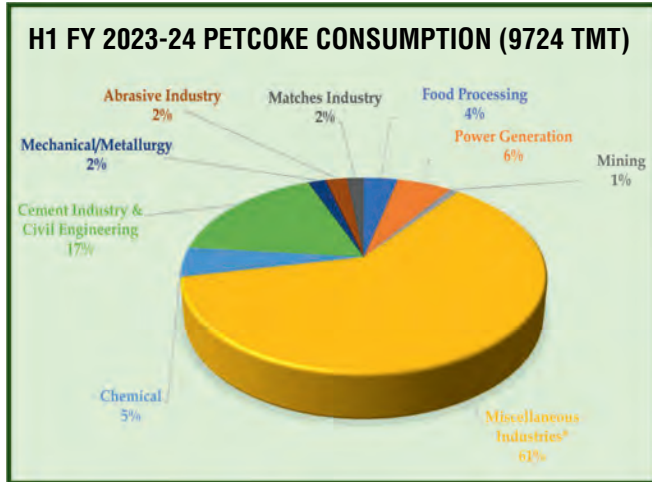
Sector wise FO & LSHS consumption for H1FY2023-24 & YoY comparison



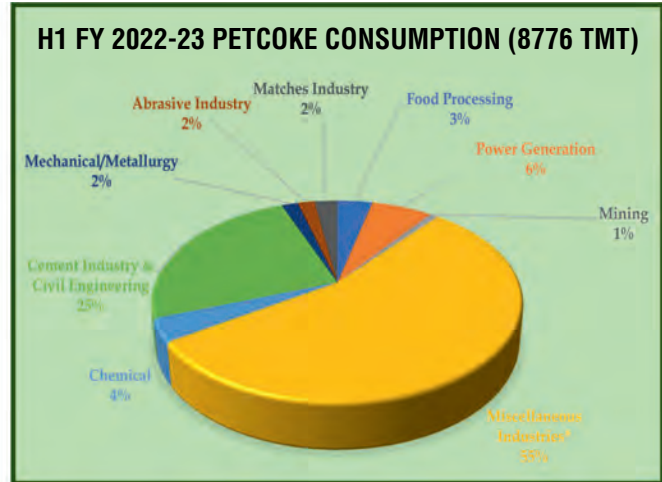
\*Miscellaneous Usage (37%) includes Electricals/ Electronics (0.06%), Catering & Hotels (0.02%), Matches Industry (Nil), Other Usages (35.93%), Packing Materials (0.05%), Processors (0.01%), Universities (0.01%), Textiles (0.41%) and Abrasives Industry (0.38%)

\*Miscellaneous Usage (33%) includes Electricals/ Electronics (0.05%), Catering & Hotels (0.01%), Matches Industry (0.07%), Other Usages (31.69%), Packing Materials (0.04%), Processors (0.02%), Universities (0.01%), Textiles (0.35%) and Abrasives Industry (0.47%)

Sector wise Petcoke consumption for H1 FY 2023-24 & YoY comparison

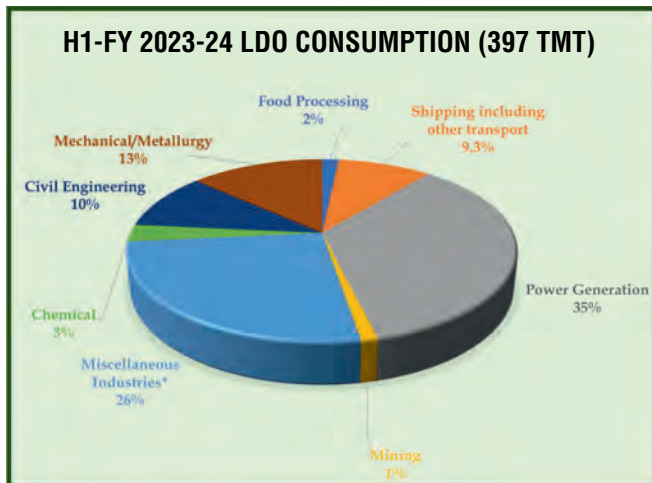


\*Miscellaneous Usage (61%) includes Textiles (0.39%),Candle Industry (0.07%),Glass & Ceramics (0.17%),Other Usages (59.85%),Packing Industry (0.08%),Paper and Plastic Industry (0.47%),Processors (0.35%) and Rubber Industry (0.04%)

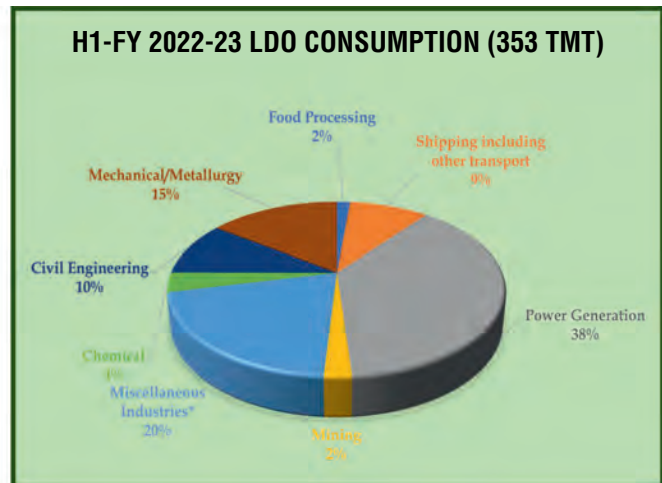


\*Miscellaneous Usage (55%) includes Textiles (0.37%),Candle Industry (0.06%),Glass & Ceramics (0.25%),Other Usages (52.72%),Packing Industry (0.12%),Paper and Plastic Industry (0.52%),Processors (0.69%) and Rubber Industry (0.06%)

Sector wise LDO consumption for H1 FY 2023-24 & YoY comparison



\*Miscellaneous Usage (26%) includes Electricals/ Electronics (0.23%),Candle Industry (0.01%),Catering & Hotels (0.01%),Glass & Ceramics (0.19%),Abrasive Industry(1.33%),Leather Industry (0.03%),Other Usages (23.31%),Paper and Plastic Industry (0.01%),Processors (0.02%),Rubber Industry (0.27%),State Electricity Board (0.57%),Universities (0.06%) and Textiles (0.09%)



\*Miscellaneous Usage (20%) includes Electricals/ Electronics (0.26%),Candle Industry (0.01%),Catering & Hotels (NIL),Glass & Ceramics (1%),Abrasive Industry(1.39%),Leather Industry (0.03%),Other Usages (15.79%),Paper and Plastic Industry (0.11%),Processors (0.02%),Rubber Industry (0.16%),State Electricity Board (1.12%),Universities (0.07%) and Textiles (0.45%)



**Table 6.3A : State-wise sales of petroleum products consumption: H1FY2023-24 (P)**

(Figures in thousand metric tonnes)

State/UT	LPG		Naphtha		MS		SKO		HSD		ATF	
	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	"Total sales"	Per capita sales (Kg)
Chandigarh	26.0	21.0	0.00	0.00	60.6	48.9	0.06	0.045	118.9	96.0	13.2	10.7
Delhi	365.9	16.9	0.00	0.00	486.7	22.5	0.09	0.004	326.5	15.1	1029.1	47.7
Haryana	478.4	15.7	1644.4	54.1	651.7	21.4	0.22	0.007	2173.9	71.5	15.0	0.5
Himachal Pradesh	97.9	13.1	0.00	0.00	159.2	21.3	0.75	0.1	424.4	56.7	2.9	0.4
Jammu and Kashmir	106.3	7.8	0.00	0.00	196.6	14.4	12.13	0.9	461.9	33.8	50.3	3.7
Ladakh	5.6	18.7	0.00	0.00	13.4	44.6	34.84	115.8	75.2	249.8	3.4	11.3
Punjab	478.3	15.5	22.64	0.73	600.8	19.5	0.19	0.006	1778.1	57.6	89.2	2.9
Rajasthan	772.6	9.5	0.00	0.00	960.0	11.8	0.55	0.007	2730.5	33.5	73.4	0.9
Uttar Pradesh	1901.5	8.0	0.00	0.00	2216.5	9.3	0.63	0.003	5001.7	21.1	147.8	0.6
Uttarakhand	168.9	14.4	0.00	0.00	222.7	19.0	0.99	0.084	402.4	34.4	13.5	1.2
<b>SUB TOTAL NORTH</b>	<b>4401</b>	<b>10</b>	<b>1667</b>	<b>4</b>	<b>5568</b>	<b>13</b>	<b>50</b>	<b>0.12</b>	<b>13493</b>	<b>31</b>	<b>1438</b>	<b>3</b>
Andaman & Nicobar Islands	6.6	16.4	0.00	0.00	9.7	24.0	0.02	0.039	79.7	197.7	8.0	19.8
Bihar	764.3	6.0	0.00	0.00	550.2	4.3	10.52	0.082	1185.0	9.3	16.4	0.128
Jharkhand	197.1	5.0	0.48	0.01	347.6	8.7	4.66	0.117	936.4	23.6	21.4	0.5
Odisha	322.8	7.0	0.05	0.00	512.7	11.0	8.23	0.177	1563.1	33.7	42.4	0.9
West Bengal	964.9	9.7	337.24	3.39	619.3	6.2	115.36	1.161	1691.4	17.0	161.7	1.6
<b>SUB TOTAL EAST</b>	<b>2255.8</b>	<b>7.2</b>	<b>337.8</b>	<b>1.08</b>	<b>2039.4</b>	<b>6.5</b>	<b>138.8</b>	<b>0.442</b>	<b>5455.5</b>	<b>17.4</b>	<b>249.8</b>	<b>0.8</b>
Arunachal Pradesh	13.8	8.8	0.00	0.00	36.6	23.4	3.33	2.1	111.4	71.0	1.5	1.0
Assam	256.2	7.1	133.68	3.72	326.2	9.1	5.15	0.1	612.8	17.1	62.0	1.7
Manipur	25.5	7.9	0.00	0.00	36.0	11.1	1.04	0.3	43.9	13.6	5.3	1.6
Meghalaya	16.0	4.7	0.00	0.00	66.1	19.7	1.36	0.4	202.5	60.2	0.5	0.162
Mizoram	16.3	13.1	0.00	0.00	20.1	16.2	0.05	0.04	49.9	40.1	2.4	1.9
Nagaland	14.7	6.6	0.00	0.00	28.2	12.6	0.43	0.2	54.1	24.1	2.3	1.0
Sikkim	10.8	15.7	0.00	0.00	14.1	20.4	3.84	5.5	46.3	66.8	0.2	0.3
Tripura	28.8	6.9	0.00	0.00	33.0	7.9	3.73	0.9	49.7	11.9	8.7	2.1
<b>SUB TOTAL NORTH EAST</b>	<b>382.2</b>	<b>7.3</b>	<b>133.7</b>	<b>2.6</b>	<b>560.4</b>	<b>10.7</b>	<b>18.9</b>	<b>0.4</b>	<b>1170.6</b>	<b>22.3</b>	<b>82.9</b>	<b>1.6</b>
Chhattisgarh	164.3	5.4	0.00	0.00	391.3	12.9	2.94	0.097	1027.6	33.8	13.7	0.5
Dadra & Nagar Haveli and Daman & Diu	16.5	12.5	0.00	0.00	22.9	17.4	0.00	0.0	90.4	68.6	0.7	0.5
Goa	37.1	23.5	0.00	0.00	103.5	65.6	0.00	0.000	132.3	83.8	89.1	56.4
Gujarat	698.8	9.7	3291.3	45.71	1251.0	17.4	1.08	0.015	3461.7	48.1	163.3	2.3
Madhya Pradesh	570.1	6.5	0.00	0.00	911.3	10.5	0.29	0.003	2009.9	23.1	60.4	0.7
Maharashtra	1659.9	13.1	184.0	1.45	1996.3	15.7	2.03	0.016	4750.5	37.4	695.3	5.5
<b>SUB TOTAL WEST</b>	<b>3146.7</b>	<b>9.9</b>	<b>3475.3</b>	<b>10.88</b>	<b>4676.3</b>	<b>14.6</b>	<b>6.3</b>	<b>0.020</b>	<b>11472.4</b>	<b>35.9</b>	<b>1022.6</b>	<b>3.2</b>
Andhra Pradesh	645.8	12.1	14.0	0.2627	772.7	14.5	0.85	0.016	1824.8	34.3	38.5	0.7
Karnataka	1007.6	14.8	0	0	1418.7	20.9	5.61	0.083	4052.9	59.7	374.7	5.5
Kerala	565.3	15.8	0	0	893.7	24.9	7.33	0.204	1179.2	32.9	262.4	7.3
Lakshadweep	0.5	7.3	0	0	0.6	9.2	0.00	0.000	9.3	134.6	0.1	0.8
Puducherry	23.8	14.3	0	0	91.1	54.7	0.00	0.000	288.1	172.8	0.0	0.02
Tamil Nadu	1152.6	15.0	1	0.012	1672.1	21.7	28.19	0.366	3174.0	41.2	258.3	3.4
Telangana	553.8	14.5	0	0	820.5	21.5	0.12	0.003	1855.2	48.6	238.1	6.2
<b>SUB TOTAL SOUTH</b>	<b>3949.3</b>	<b>14.4</b>	<b>14.90</b>	<b>0.05</b>	<b>5669.5</b>	<b>20.7</b>	<b>42.1</b>	<b>0.2</b>	<b>12383.6</b>	<b>45.2</b>	<b>1172.2</b>	<b>4.3</b>
<b>All India**</b>	<b>14135.4</b>	<b>10.1</b>	<b>6575.4</b>	<b>4.7</b>	<b>18513.8</b>	<b>13.3</b>	<b>256.6</b>	<b>0.2</b>	<b>43989.5</b>	<b>31.5</b>	<b>3966.1</b>	<b>2.8</b>

\*\*All India domestic sales figures are including private imports & SEZ data

State wise highest/lowest per capita (only for major products)

Highest

Lowest

Source: Oil companies; P-Provisional

Note:

1. Per capita sales figures are based on provisional sales figures for the period H1 FY 2023-24

2. Population figures have been taken from table no.14 of 'Report of the Technical Group on Population Projections

3. SKO includes both PDS & non PDS sales

**Table 6.3B : State-wise sales of petroleum products consumption: H1 FY 2023-24 (P)**

(Figures in thousand metric tonnes)

State/UT	LDO		FO/LSHS		LUBES & GREASES		BITUMEN		PET COKE		OTHERS		TOTAL (All POL Products)*	
	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	Sales	Per capita sales (Kg)	"Total sales"	Per capita sales (Kg)	"Total sales"	Per capita sales (Kg)
Chandigarh	0.2	0.2	0.9	0.7	1.5	1.2	0.3	0.2	7.2	5.9	0.0	0.0	228.8	184.9
Delhi	0.0	0.0	0.0	0.0	5.3	0.2	1.2	0.1	0.0	0.0	3.7	0.2	2218.4	102.8
Haryana	11.6	0.4	41.4	1.4	28.2	0.9	97.9	3.2	0.0	0.0	81.1	2.7	5223.9	171.7
Himachal Pradesh	0.0	0.0	11.1	1.5	5.6	0.8	33.6	4.5	295.2	39.4	4.2	0.6	1034.8	138.2
Jammu and Kashmir	0.2	0.0	1.9	0.1	2.4	0.2	22.8	1.7	36.3	2.7	3.1	0.2	893.9	65.4
Ladakh	0.0	0.0	0.0	0.0	0.3	0.9	17.1	56.9	0.0	0.0	0.1	0.3	150.0	498.2
Punjab	3.5	0.1	72.3	2.3	19.0	0.6	43.7	1.4	317.6	10.3	47.5	1.5	3472.8	112.6
Rajasthan	23.3	0.3	49.0	0.6	27.7	0.3	129.4	1.6	740.3	9.1	31.7	0.4	5538.4	67.9
Uttar Pradesh	51.2	0.2	75.7	0.3	39.2	0.2	322.1	1.4	15.6	0.1	178.1	0.8	9950.0	42.0
Uttarakhand	0.6	0.0	67.2	5.7	7.7	0.7	14.8	1.3	12.0	1.0	5.6	0.5	916.4	78.3
<b>SUB TOTAL NORTH</b>	<b>90.7</b>	<b>0.2</b>	<b>319.5</b>		<b>136.8</b>	<b>0.3</b>	<b>683.1</b>	<b>1.6</b>	<b>1424.1</b>	<b>3.3</b>	<b>355.2</b>	<b>0.8</b>	<b>29627.4</b>	<b>68.0</b>
Andaman & Nicobar Islands	0.0	0.0	0.0	0.0	0.2	0.4	2.8	7.0	0.0	0.0	0.0	0.0	107.0	265.4
Bihar	17.7	0.1	29.2	0.2	6.7	0.1	147.7	1.2	141.6	1.1	6.8	0.1	2876.0	22.5
Jharkhand	25.8	0.6	70.7	1.8	18.3	0.5	103.6	2.6	15.9	0.4	9.5	0.2	1751.3	44.1
Odisha	27.2	0.6	512.4	11.0	13.3	0.3	35.5	0.8	345.5	7.4	156.5	3.4	3539.7	76.2
West Bengal	33.8	0.3	174.2	1.8	43.2	0.4	78.0	0.8	155.1	1.6	233.7	2.4	4607.9	46.4
<b>SUB TOTAL EAST</b>	<b>104.3</b>	<b>0.3</b>	<b>786.5</b>	<b>2.5</b>	<b>81.7</b>	<b>0.3</b>	<b>367.6</b>	<b>1.2</b>	<b>658.1</b>	<b>2.1</b>	<b>406.5</b>	<b>1.3</b>	<b>12881.9</b>	<b>41.1</b>
Arunachal Pradesh	0.0	0.0	0.0	0.0	0.3	0.2	4.4	2.8	0.0	0.0	0.2	0.1	171.7	109.4
Assam	2.1	0.1	3.0	0.1	25.9	0.7	5.7	0.2	99.8	2.8	16.0	0.4	1548.5	43.1
Manipur	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	112.5	34.8
Meghalaya	0.0	0.0	0.4	0.1	0.5	0.1	1.2	0.4	0.0	0.0	0.0	0.0	288.6	85.8
Mizoram	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.6	0.0	0.0	0.0	0.0	89.7	72.1
Nagaland	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.2	0.0	0.0	0.0	0.0	100.4	44.8
Sikkim	1.6	2.4	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	77.1	111.4
Tripura	0.0	0.0	0.0	0.0	0.6	0.1	2.7	0.6	0.0	0.0	0.0	0.0	127.2	30.5
<b>SUB TOTAL NORTH EAST</b>	<b>3.7</b>	<b>0.1</b>	<b>3.4</b>	<b>0.1</b>	<b>27.8</b>	<b>0.5</b>	<b>16.0</b>	<b>0.3</b>	<b>99.8</b>	<b>1.9</b>	<b>16.2</b>	<b>0.3</b>	<b>2515.7</b>	<b>48.0</b>
Chhattisgarh	25.7	0.8	87.0	2.9	11.7	0.4	117.0	3.9	221.2	7.3	15.9	0.5	2078.4	68.4
Dadra & Nagar Haveli and Daman & Diu	0.9	0.7	25.6	19.5	82.5	62.6	0.3	0.2	0.0	0.0	2.9	2.2	242.6	184.2
Goa	0.6	0.4	16.8	10.6	2.9	1.8	7.4	4.7	2.1	1.3	2.7	1.7	394.5	249.9
Gujarat	31.3	0.4	488.6	6.8	65.0	0.9	246.3	3.4	543.6	7.5	1798.7	25.0	12040.8	167.2
Madhya Pradesh	12.4	0.1	37.5	0.4	21.5	0.2	97.4	1.1	450.7	5.2	76.5	0.9	4248.0	48.7
Maharashtra	60.2	0.5	364.1	2.9	232.3	1.8	241.3	1.9	63.9	0.5	351.3	2.8	10601.1	83.5
<b>SUB TOTAL WEST</b>	<b>131.0</b>	<b>0.4</b>	<b>1019.7</b>	<b>3.2</b>	<b>415.9</b>	<b>1.3</b>	<b>709.7</b>	<b>2.2</b>	<b>1281.6</b>	<b>4.0</b>	<b>2247.9</b>	<b>7.0</b>	<b>29605.5</b>	<b>92.7</b>
Andhra Pradesh	15.7	0.3	218.9	4.1	20.2	0.4	82.9	1.6	292.3	5.5	86.9	1.6	4013.6	75.4
Karnataka	9.0	0.1	170.3	2.5	32.2	0.5	59.3	0.9	248.4	3.7	92.4	1.4	7471.1	110.0
Kerala	3.6	0.1	218.5	6.1	21.4	0.6	64.4	1.8	10.6	0.3	147.6	4.1	3374.0	94.1
Lakshadweep	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	10.5	152.3
Puducherry	0.6	0.3	19.4	11.7	1.5	0.9	0.0	0.0	0.8	0.5	6.9	4.1	432.2	259.3
Tamil Nadu	14.1	0.2	223.6	2.9	82.0	1.1	325.7	4.2	466.3	6.1	262.5	3.4	7660.3	99.5
Telangana	23.0	0.6	53.2	1.4	22.1	0.6	92.3	2.4	95.7	2.5	21.4	0.6	3775.5	98.9
<b>SUB TOTAL SOUTH</b>	<b>65.9</b>	<b>0.2</b>	<b>903.9</b>	<b>3.3</b>	<b>179.5</b>	<b>0.7</b>	<b>624.6</b>	<b>2.3</b>	<b>1114.1</b>	<b>4.1</b>	<b>617.6</b>	<b>2.3</b>	<b>26737.2</b>	<b>97.6</b>
<b>All India**</b>	<b>396.9</b>	<b>0.3</b>	<b>3304.0</b>	<b>2.4</b>	<b>1975.7</b>	<b>1.4</b>	<b>4055.3</b>	<b>2.9</b>	<b>9724.5</b>	<b>7.0</b>	<b>7400.9</b>	<b>5.3</b>	<b>114294.1</b>	<b>81.9</b>

^ Others include sulfur, propylene, propane, reformate, LABS, CBFS, butane, MTO etc.

\* Total (all product) sales includes all petroleum oil and lubricants \*\*All India domestic sales figures are including private imports &amp; SEZ data

 State wise highest/lowest per capita Highest Lowest

Source: Oil companies; P-Provisional

Note:

- Per capita sales figures are based on provisional sales figures for the period H1 FY 2023-24
- Population figures have been taken from table no.14 of 'Report of the Technical Group on Population Projections'

Table 6.4A : ALL PRODUCTS ANNUAL INDUSTRY SALES- REGION &amp; STATE WISE

(Figures in TMT)

STATE/UT	2018-19	2019-20	2020-21	2021-22	2022-23	H1 FY 2022-23	H1 FY 2023-24 (P)
Chandigarh	435.2	435.9	312.0	369.5	414.8	206.5	228.8
Delhi	4890.5	4621.4	2911.3	3405.0	4322.2	2109.6	2218.4
Himachal Pradesh	1558.8	1693.5	1527.8	1924.1	2129.7	1142.3	1034.8
Jammu & Kashmir	1502.7	1371.7	1300.8	1500.0	1667.6	822.8	893.9
Ladakh		128.3	140.6	158.9	176.0	136.9	150.0
Punjab	7063.3	7113.9	5964.0	6578.6	6560.3	3180.0	3472.8
Rajasthan	11402.7	10920.6	9179.4	10242.3	10770.8	5177.7	5538.4
Uttar Pradesh	18180.4	18407.2	18090.2	18791.1	19400.7	9412.4	9950.0
Uttarakhand	1725.5	1655.7	1533.6	1619.1	1761.4	868.6	916.4
<b>SUB TOTAL NORTH</b>	<b>57281.9</b>	<b>56571.0</b>	<b>50812.8</b>	<b>55134.8</b>	<b>56657.3</b>	<b>28016.2</b>	<b>29627.4</b>
Andaman & Nicobar	212.0	217.1	171.5	189.8	220.4	102.7	107.0
Bihar	5242.3	5396.9	5518.3	5362.9	5571.7	2707.8	2876.0
Jharkhand	3409.1	3416.4	3139.3	3245.8	3380.8	1632.9	1751.3
Odisha	5929.7	6029.6	5926.7	6154.4	6646.1	3154.8	3539.7
West Bengal	8788.9	9308.5	8490.7	8681.0	8898.0	4293.0	4607.9
<b>SUB TOTAL EAST</b>	<b>23582.1</b>	<b>24368.5</b>	<b>23246.5</b>	<b>23633.9</b>	<b>24716.9</b>	<b>11891.1</b>	<b>12881.9</b>
Arunachal Pradesh	248.4	263.3	275.8	302.1	345.9	155.0	171.7
Assam	2744.0	2823.3	2710.0	2923.1	3102.9	1446.2	1548.5
Manipur	241.0	254.7	236.7	254.0	313.9	143.3	112.5
Meghalaya	491.9	550.3	409.3	472.6	561.5	259.0	288.6
Mizoram	138.8	140.9	130.4	146.0	174.9	77.9	89.7
Nagaland	154.4	171.6	162.5	190.8	203.0	90.3	100.4
Sikkim	125.9	130.1	108.1	129.7	151.6	73.1	77.1
Tripura	234.9	231.8	229.8	237.3	249.3	120.3	127.2
<b>SUB TOTAL NORTH-EAST</b>	<b>4379.1</b>	<b>4566.0</b>	<b>4262.7</b>	<b>4655.6</b>	<b>5103.1</b>	<b>2365.0</b>	<b>2515.7</b>
Chhattisgarh	4109.9	3667.0	3420.8	3598.2	4156.2	1868.0	2078.4
Dadra & Nagar Haveli And Daman & Diu	618.9	570.4	541.6	522.1	535.8	227.4	242.6
Goa	797.5	789.9	555.6	680.1	778.8	360.2	394.5
Gujarat	21216.4	22535.6	21940.1	24220.7	25673.9	12329.9	12040.8
Madhya Pradesh	8006.0	7860.0	7283.3	7533.9	8346.2	4067.0	4248.0
Maharashtra	21017.2	20796.8	17849.4	19050.5	20952.6	9955.9	10601.1
<b>SUB TOTAL WEST</b>	<b>55765.9</b>	<b>56219.7</b>	<b>51590.8</b>	<b>55605.6</b>	<b>60443.6</b>	<b>28808.3</b>	<b>29605.5</b>
Andhra Pradesh	7819.8	7699.3	7266.3	7552.6	8036.0	3965.6	4013.6
Karnataka	13205.9	13067.4	11121.4	12479.3	15011.9	7286.0	7471.1
Kerala	6338.9	6533.5	5461.3	5901.7	6882.6	3302.6	3374.0
Lakshadweep	15.1	16.5	17.7	17.6	18.1	7.2	10.5
Puducherry	542.1	516.7	412.8	531.4	820.6	402.2	432.2
Tamil Nadu	14421.2	14115.6	12195.0	13067.7	14549.3	7196.2	7660.3
Telangana	6999.7	6952.5	6222.8	6859.3	7291.0	3601.9	3775.5
<b>SUB TOTAL SOUTH</b>	<b>49342.9</b>	<b>48901.4</b>	<b>42697.2</b>	<b>46409.5</b>	<b>52609.4</b>	<b>25761.6</b>	<b>26737.2</b>
<b>All India Total*</b>	<b>213216.3</b>	<b>214126.6</b>	<b>194295.3</b>	<b>201696.7</b>	<b>223020.8</b>	<b>107412.6</b>	<b>114294.1</b>

Source : Oil Companies; P:-provisional

\*Domestic sales figures are including private imports &amp; SEZ sales data

**6.4B: MS/Petrol ANNUAL INDUSTRY SALES- REGION & STATE WISE**

(Figures in TMT)

STATE/UT	2018-19	2019-20	2020-21	2021-22	2022-23(P)	H1FY2022-23	H1FY2023-24
Chandigarh	122.6	126.8	91.4	110.0	114.4	59.3	60.6
Delhi	903.1	876.0	668.8	693.3	899.5	456.3	486.7
Haryana	978.5	1029.4	1011.6	1113.7	1203.3	607.3	651.7
Himachal Pradesh	224.6	238.0	233.1	272.3	306.4	154.8	159.2
Jammu & Kashmir	274.7	300.4	273.1	316.3	354.7	183.4	196.6
Ladakh		3.6	12.5	16.8	20.3	13.7	13.4
Punjab	879.2	960.2	888.4	1015.8	1133.6	570.9	600.8
Rajasthan	1550.7	1657.0	1549.4	1621.5	1790.4	906.6	960.0
Uttar Pradesh	3119.2	3319.9	3210.1	3696.1	4103.4	2087.6	2216.5
Uttarakhand	309.2	326.3	293.0	338.4	410.2	209.4	222.7
<b>SUB TOTAL NORTH</b>	<b>8361.9</b>	<b>8837.6</b>	<b>8231.3</b>	<b>9194.3</b>	<b>10336.4</b>	<b>5249.3</b>	<b>5568.1</b>
Andaman & Nicobar	18.1	18.9	13.8	15.7	19.4	9.3	9.7
Bihar	793.0	852.1	848.9	926.7	1034.3	523.7	550.2
Jharkhand	487.0	526.5	512.5	574.1	660.4	332.5	347.6
Odisha	775.9	834.5	782.4	863.9	992.6	487.8	512.7
West Bengal	904.1	996.1	997.5	1076.9	1191.1	591.6	619.3
<b>SUB TOTAL EAST</b>	<b>2978.1</b>	<b>3227.9</b>	<b>3155.2</b>	<b>3457.3</b>	<b>3897.7</b>	<b>1944.9</b>	<b>2039.4</b>
Arunachal Pradesh	46.2	51.8	50.6	55.4	66.7	32.2	36.6
Assam	411.6	445.1	431.9	510.0	611.2	294.5	326.2
Manipur	61.2	68.2	62.1	67.5	88.4	42.9	36.0
Meghalaya	93.7	99.8	81.3	95.5	124.6	60.3	66.1
Mizoram	28.2	31.2	26.0	26.0	35.4	17.0	20.1
Nagaland	36.8	39.2	31.9	40.9	51.2	23.8	28.2
Sikkim	19.7	21.1	15.8	19.4	26.5	12.6	14.1
Tripura	54.1	57.7	53.7	57.5	64.3	31.6	33.0
<b>SUB TOTAL NORTH-EAST</b>	<b>751.5</b>	<b>814.1</b>	<b>753.2</b>	<b>872.3</b>	<b>1068.3</b>	<b>515.0</b>	<b>560.4</b>
Chhattisgarh	559.6	613.1	604.3	660.9	743.4	367.2	391.3
Dadra & Nagar Haveli And Daman & Diu	42.8	38.9	30.0	38.6	44.2	21.9	22.9
Goa	183.6	186.1	145.1	167.0	204.7	97.3	103.5
Gujarat	1976.0	2066.8	1860.2	2134.0	2397.8	1180.1	1251.0
Madhya Pradesh	1372.1	1463.7	1461.1	1542.7	1705.3	853.3	911.3
Maharashtra	3358.1	3462.0	3014.4	3387.6	3815.2	1861.6	1996.3
<b>SUB TOTAL WEST</b>	<b>7492.1</b>	<b>7830.6</b>	<b>7115.1</b>	<b>7930.9</b>	<b>8910.6</b>	<b>4381.4</b>	<b>4676.3</b>
Andhra Pradesh	1161.9	1278.4	1321.9	1419.4	1504.2	747.2	772.7
Karnataka	2142.7	2270.5	2123.9	2235.0	2648.1	1293.2	1418.7
Kerala	1462.6	1558.8	1371.1	1495.8	1747.6	861.5	893.7
Lakshadweep				0.0	0.7	0.2	0.6
Puducherry	132.9	133.8	108.4	128.5	168.4	85.6	91.1
Tamil Nadu	2602.0	2735.4	2580.6	2758.1	3152.9	1585.7	1672.1
Telangana	1198.8	1288.3	1199.5	1357.3	1541.4	759.9	820.5
<b>SUB TOTAL SOUTH</b>	<b>8700.8</b>	<b>9265.2</b>	<b>8705.4</b>	<b>9394.1</b>	<b>10763.3</b>	<b>5333.2</b>	<b>5669.5</b>
<b>All India Total*</b>	<b>28284.4</b>	<b>29975.5</b>	<b>27969.0</b>	<b>30849.0</b>	<b>34976.4</b>	<b>17423.8</b>	<b>18513.8</b>

Source : Oil Companies; P:-provisional

\*Domestic sales figures are including private imports &amp; SEZ sales data



## 6.4C: HSD ANNUAL INDUSTRY SALES- REGION &amp; STATE WISE

(Figures in TMT)

STATE/UT	2018-19	2019-20	2020-21	2021-22	2022-23	H1 FY 2022-23	H1 FY 2023-24 (P)
Chandigarh	192.4	197.7	126.6	171.0	210.6	106.4	118.9
Delhi	1020.8	835.3	499.2	597.5	662.0	343.5	326.5
Haryana	4847.0	4716.8	4434.9	4450.1	4205.9	2112.2	2173.9
Himachal Pradesh	646.2	667.6	609.8	776.6	1002.8	532.7	424.4
Jammu & Kashmir	697.0	675.5	576.0	698.5	821.7	408.7	461.9
Ladakh		5.0	56.1	67.7	80.3	62.0	75.2
Punjab	3216.7	3213.7	2741.7	3113.0	3265.0	1561.6	1778.1
Rajasthan	5440.4	5271.9	4336.8	4452.4	5074.3	2409.7	2730.5
Uttar Pradesh	9453.4	9484.9	9384.8	9496.3	9858.6	4738.9	5001.7
Uttarakhand	762.2	744.0	657.2	699.7	779.7	392.8	402.4
<b>SUB TOTAL NORTH</b>	<b>26276.3</b>	<b>25812.4</b>	<b>23423.0</b>	<b>24522.7</b>	<b>25960.9</b>	<b>12668.7</b>	<b>13493.3</b>
Andaman & Nicobar	149.2	157.2	132.4	141.9	162.8	75.3	79.7
Bihar	2441.8	2366.7	2136.6	2055.1	2398.4	1161.0	1185.0
Jharkhand	1901.4	1968.4	1741.5	1660.6	1754.8	840.7	936.4
Odisha	2613.3	2661.7	2534.5	2593.6	2929.3	1372.9	1563.1
West Bengal	3448.7	3438.7	3007.9	2962.3	3496.9	1679.1	1691.4
<b>SUB TOTAL EAST</b>	<b>10554.4</b>	<b>10592.8</b>	<b>9553.0</b>	<b>9413.6</b>	<b>10742.2</b>	<b>5129.0</b>	<b>5455.5</b>
Arunachal Pradesh	150.1	161.5	174.9	192.5	227.0	96.8	111.4
Assam	984.6	1023.8	904.0	1123.0	1327.5	608.7	612.8
Manipur	115.8	118.4	109.0	119.4	149.5	66.1	43.9
Meghalaya	343.7	355.9	281.1	331.1	397.4	180.5	202.5
Mizoram	72.6	74.9	68.9	82.7	100.7	42.4	49.9
Nagaland	77.5	90.4	88.9	101.1	109.9	47.0	54.1
Sikkim	77.7	78.0	60.4	73.6	90.8	44.1	46.3
Tripura	93.6	86.8	88.7	94.7	101.3	44.9	49.7
<b>SUB TOTAL NORTH-EAST</b>	<b>1915.5</b>	<b>1989.6</b>	<b>1775.7</b>	<b>2118.1</b>	<b>2504.0</b>	<b>1130.6</b>	<b>1170.6</b>
Chhattisgarh	1698.8	1648.2	1607.7	1656.9	1930.3	899.3	1027.6
Dadra & Nagar Haveli And Daman & Diu	291.4	234.0	161.7	175.3	212.7	102.1	90.4
Goa	315.5	305.5	233.4	276.4	294.0	145.3	132.3
Gujarat	5429.9	5607.6	5089.8	5780.1	6927.3	3298.8	3461.7
Madhya Pradesh	3797.5	3654.9	3368.9	3375.0	3884.6	1832.4	2009.9
Maharashtra	9291.8	9528.9	8031.2	8322.1	9291.1	4333.6	4750.5
<b>SUB TOTAL WEST</b>	<b>20824.9</b>	<b>20979.2</b>	<b>18492.8</b>	<b>19585.7</b>	<b>22540.0</b>	<b>10611.4</b>	<b>11472.4</b>
Andhra Pradesh	3947.2	3833.6	3405.4	3432.2	3460.5	1744.7	1824.8
Karnataka	6904.6	6601.8	5574.5	6203.6	8042.1	3855.8	4052.9
Kerala	2576.0	2557.3	1922.7	2101.1	2485.6	1189.3	1179.2
Lakshadweep	14.0	15.3	16.0	16.1	16.3	6.5	9.3
Puducherry	314.2	290.3	210.9	300.2	553.0	268.0	288.1
Tamil Nadu	6354.3	6191.3	5006.9	5371.1	5999.4	3021.6	3174.0
Telangana	3753.4	3621.8	3253.3	3555.8	3528.8	1742.2	1855.2
<b>SUB TOTAL SOUTH</b>	<b>23863.5</b>	<b>23111.4</b>	<b>19389.7</b>	<b>20980.1</b>	<b>24085.7</b>	<b>11828.1</b>	<b>12383.6</b>
<b>All India Total*</b>	<b>83528.1</b>	<b>82602.0</b>	<b>72712.7</b>	<b>76658.7</b>	<b>85900.5</b>	<b>41389.0</b>	<b>43989.5</b>

Source : Oil Companies; P:-provisional

\*Domestic sales figures are including private imports &amp; SEZ sales data

**Table 6.5 : PDS SKO allocation**

(Figures in thousand kilo litres)

State/UT	2018-19		2019-20		2020-21		2021-22		2022-23		H1-FY2023-24	
	Allocn	Sales	Allocn	Sales	Allocn	Sales	Allocn	Sales	Allocn	Sales	Allocn	Sales
Chandigarh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delhi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haryana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Himachal Pradesh	14.5	14.3	11.4	10.8	9.8	6.8	6.9	2.3	4.0	0.1	1.0	0.0
Jammu & Kashmir	58.5	53.9	45.0	40.9	45.0	36.5	38.3	29.2	30.6	0.8	6.1	0.0
Ladakh			3.5	1.0	3.5	3.5	3.5	3.3	2.8	0.6	1.4	0.0
Punjab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rajasthan	138.0	69.3	40.0	16.2	14.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Uttar Pradesh	887.9	873.5	517.9	449.5	181.7	26.5	0.0	0.0	0.0	0.0	0.0	0.0
Uttarakhand	25.3	10.0	8.0	0.5	2.2	0.4	0.7	0.0	0.1	0.0	0.0	0.0
<b>SUB TOTAL NORTH</b>	<b>1124.2</b>	<b>1021.0</b>	<b>625.8</b>	<b>518.8</b>	<b>256.4</b>	<b>74.6</b>	<b>49.3</b>	<b>34.9</b>	<b>37.6</b>	<b>1.5</b>	<b>8.5</b>	<b>0.0</b>
Andaman & Nicobar Islands	4.1	3.8	1.9	1.5	0.0	0.0	0.0	0.0	0.0	0	0	0
Bihar	332.6	329.6	263.0	243.9	212.7	212.4	170.2	169.8	127.6	48.4	31.9	13.4
Jharkhand	186.8	150.3	135.2	107.2	90.0	83.2	72.0	68.9	54.0	18.9	13.5	5.9
Odisha	248.4	247.7	210.6	208.3	194.3	190.3	155.4	150.3	116.5	28.7	25.9	10.5
West Bengal	704.0	699.3	704.0	692.7	704.0	696.5	704.0	689.7	462.7	171.5	352.0	147.4
<b>SUB TOTAL EAST</b>	<b>1476.0</b>	<b>1430.7</b>	<b>1314.8</b>	<b>1253.5</b>	<b>1201.1</b>	<b>1182.4</b>	<b>1101.6</b>	<b>1078.6</b>	<b>760.9</b>	<b>267.5</b>	<b>423.4</b>	<b>177.3</b>
Arunachal Pradesh	7.9	7.2	6.4	5.2	4.8	3.7	3.3	2.9	3.0	0.2	1.0	0.0
Assam	245.9	242.6	181.9	176.9	155.6	153.1	124.5	117.3	99.6	12.7	24.9	6.2
Manipur	17.9	17.7	13.3	12.7	11.1	11.3	10.0	10.0	9.0	2.6	2.2	1.3
Meghalaya	19.4	19.3	19.3	18.9	18.9	17.9	17.0	16.0	15.3	2.5	5.4	1.7
Mizoram	4.8	4.8	3.6	3.6	3.2	3.2	2.9	2.7	2.6	0.1	0.6	0.1
Nagaland	10.3	9.8	9.3	8.9	8.6	8.4	7.7	7.7	7.0	1.1	2.4	0.5
Sikkim	3.5	3.4	2.6	2.5	2.3	2.1	22.7	22.5	1.8	0.2	0.5	0.1
Tripura	29.4	29.3	26.4	26.2	25.2	25.1	2.0	2.0	20.4	8.4	7.1	4.8
<b>SUB TOTAL NORTH EAST</b>	<b>339.0</b>	<b>334.0</b>	<b>262.7</b>	<b>254.9</b>	<b>229.5</b>	<b>224.8</b>	<b>190.0</b>	<b>181.0</b>	<b>158.6</b>	<b>27.9</b>	<b>44.2</b>	<b>14.7</b>
Chhattisgarh	115.1	91.5	82.4	69.1	58.3	56.1	46.6	43.9	34.9	9.7	8.3	3.7
Dadra & Nagar Haveli and Daman & Diu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goa <sup>#</sup>	2.1	1.4	0.8	0.6	0.4	0.4	0.3	0.3	0.2	0.0	0.0	0.0
Gujarat <sup>§</sup>	249.7	248.7	138.8	120.8	84.0	83.1	55.8	53.7	25.1	6.0	0.0	0.0
Madhya Pradesh	336.2	325.9	260.7	238.5	213.4	187.1	160.0	116.8	120.0	3.4	16.4	0.3
Maharashtra	286.7	241.9	106.5	52.9	46.5	21.6	27.9	15.6	16.8	3.9	3.7	1.0
<b>SUB TOTAL WEST</b>	<b>989.8</b>	<b>909.5</b>	<b>589.3</b>	<b>482.1</b>	<b>402.6</b>	<b>348.2</b>	<b>290.7</b>	<b>230.2</b>	<b>197.0</b>	<b>23.0</b>	<b>28.5</b>	<b>5.0</b>
Andhra Pradesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Karnataka	156.0	112.5	84.3	66.4	42.5	38.7	5.0	0.4	17.9	6.3	4.4	2.5
Kerala	55.6	55.6	41.7	41.7	37.1	37.1	29.8	17.8	15.6	15.6	3.9	3.9
Lakshadweep	0.8	0.8	0.8	0.6	0.8	0.9	25.9	25.9	0.4	0.0	0.3	0.0
Puducherry	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0
Tamil Nadu	193.8	193.8	145.3	145.3	129.2	129.2	0.0	0.0	54.2	54.2	16.3	16.3
Telengana	97.9	94.3	56.6	29.8	16.0	2.9	90.4	90.4	1.5	0.0	0.2	0.0
<b>SUB TOTAL SOUTH</b>	<b>504.1</b>	<b>456.9</b>	<b>328.7</b>	<b>283.8</b>	<b>225.5</b>	<b>208.8</b>	<b>151.7</b>	<b>135.1</b>	<b>89.6</b>	<b>76.1</b>	<b>25.1</b>	<b>22.7</b>
<b>All India</b>	<b>4433.0</b>	<b>4152.1</b>	<b>3121.3</b>	<b>2793.2</b>	<b>2315.0</b>	<b>2038.8</b>	<b>1783.3</b>	<b>1659.9</b>	<b>1243.6</b>	<b>396.1</b>	<b>529.6</b>	<b>219.8</b>

Allocn= Allocation

States/UTs currently under nil PDS SKO quota

Source: MoP&amp;NG

• Delhi and Chandigarh have been declared kerosene-free from Q3, 2013-14 and Q1, 2016-17 respectively. Punjab and Haryana have been declared kerosene-free from Q1, 2017-18. PDS SKO allocation for Dadra & Nagar Haveli and Daman & Diu PDS SKO allocation has been reduced to "Zero" from Q2, 2017-18. PDS SKO allocation of Puducherry and Andhra Pradesh has been reduced to "Zero" wef 01.09.2017 and 01.10.2017 respectively. PDS SKO allocation for Andaman & Nicobar islands has been reduced to "Zero" effective from 01.09.2019.

§: Allocation of PDS Kerosene for 4th quarter for the state of Gujrat has been reduced to zero according to MoPNG letter no. M-11021(16)/2/2022-Distribution-PNG dated 20th January,2023.

#: Government of Goa requested central government to kerosene free effective from 31.03.2023.

• On an all India basis, the drop in allocation in the last five years (till 2022-23) has been 72% due to voluntary surrender of PDS SKO allocation by some of the states in addition to nil PDS SKO allocation to the above states. The allocation drop has been steepest in the Northern region (96.7%) followed by Southern region (82.2%), Western region (80.1%), North Eastern region 53.2% & Eastern region (48.4%) .

Overall India based PDS SKO upliftment with respect to allocation during FY2022-23 was 31.9% .Highest upliftment was observed in South zone 85% followed by East zone 35.2%, North East zone 17.6%, West zone 11.7% and North zone 4%.

Overall lapse quota of PDS SKO on subsidized rate for the H1 FY 2023-24 was 58%

Table 6.6 : Oil industry retail outlets, SKO / LDO agencies

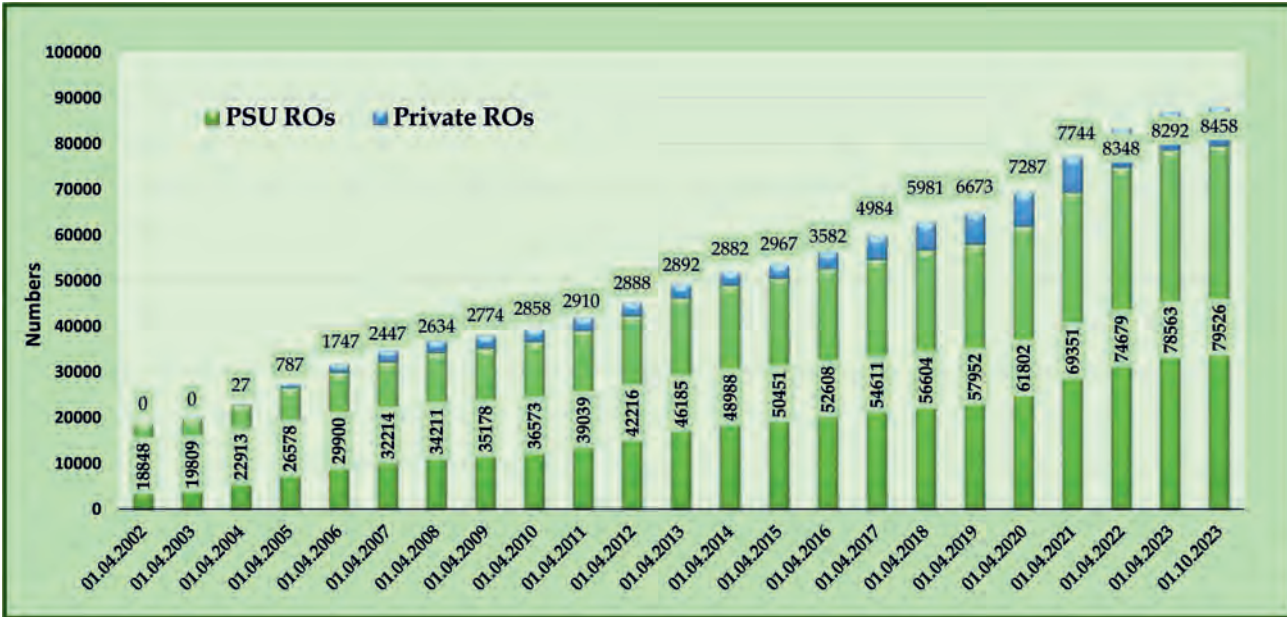
State/UT	Number of Retail Outlets (as on)					No of SKO /LDO agencies (as on)				
	1.4.2020	1.4.2021	1.4.2022	1.4.2023	1.10.2023 (P)	1.4.2020	1.4.2021	1.4.2022	1.4.2023	1.10.2023 (P)
Chandigarh	42	47	47	48	48	12	12	12	11	2
Delhi	398	400	400	402	402	116	111	111	112	112
Haryana	3060	3412	3660	3769	3816	141	139	139	150	150
Himachal Pradesh	494	563	638	701	712	26	26	26	25	25
Jammu and Kashmir	530	552	581	643	655	45	45	45	50	4
Ladakh	3	12	27	32	34	2	2	2	2	0
Punjab	3551	3772	3920	4000	4026	237	237	237	232	232
Rajasthan	4967	5615	6028	6348	6443	250	248	248	285	285
Uttar Pradesh	8210	9315	10162	10709	10955	691	675	674	772	772
Uttarakhand	629	686	763	798	815	73	69	69	73	73
<b>SUB TOTAL NORTH</b>	<b>21884</b>	<b>24374</b>	<b>26226</b>	<b>27450</b>	<b>27906</b>	<b>1593</b>	<b>1564</b>	<b>1563</b>	<b>1712</b>	<b>1655</b>
Andaman & Nicobar Islands	16	16	19	19	19	2	2	2	2	0
Bihar	2968	3158	3341	3523	3551	371	362	362	349	349
Jharkhand	1358	1535	1634	1681	1688	87	87	87	110	110
Odisha	1894	2070	2246	2340	2373	177	176	176	172	172
West Bengal	2523	2750	2894	3006	3028	457	455	455	470	470
<b>SUB TOTAL EAST</b>	<b>8759</b>	<b>9529</b>	<b>10134</b>	<b>10569</b>	<b>10659</b>	<b>1094</b>	<b>1082</b>	<b>1082</b>	<b>1103</b>	<b>1101</b>
Arunachal Pradesh	116	152	178	195	197	33	33	33	30	30
Assam	979	1104	1312	1417	1429	359	359	359	227	227
Manipur	136	160	178	195	196	36	36	36	40	40
Meghalaya	225	238	270	285	288	35	35	35	31	31
Mizoram	45	55	72	96	97	19	19	19	27	27
Nagaland	94	120	150	167	175	19	19	19	19	19
Sikkim	55	57	63	65	67	12	12	12	7	7
Tripura	79	94	108	114	118	40	40	40	48	48
<b>SUB TOTAL NORTH EAST</b>	<b>1729</b>	<b>1980</b>	<b>2331</b>	<b>2534</b>	<b>2567</b>	<b>553</b>	<b>553</b>	<b>553</b>	<b>429</b>	<b>429</b>
Chhattisgarh	1462	1808	1969	2071	2102	108	108	108	105	105
Dadra & Nagar Haveli and Daman & Diu	61	61	64	66	66	7	7	7	7	3
Goa	118	122	127	135	135	22	22	22	19	19
Gujarat	4573	5149	5502	5661	5704	473	470	470	466	466
Madhya Pradesh	4230	4981	5566	5909	5973	284	284	284	279	279
Maharashtra	6457	7048	7667	8045	8173	766	752	752	786	786
<b>SUB TOTAL WEST</b>	<b>16901</b>	<b>19169</b>	<b>20895</b>	<b>21887</b>	<b>22153</b>	<b>1660</b>	<b>1643</b>	<b>1643</b>	<b>1662</b>	<b>1658</b>
Andhra Pradesh	3721	4047	4230	4345	4375	394	384	384	328	328
Karnataka	4811	5500	5929	6199	6292	315	311	309	376	376
Kerala	2238	2396	2559	2694	2739	237	234	234	200	200
Lakshadweep	0	0	1	4	4	0	0	0	1	0
Puducherry	164	174	179	186	193	8	8	8	6	0
Tamil Nadu	5804	6355	6745	7018	7097	465	458	458	392	392
Telangana	3078	3571	3798	3969	3999	202	202	202	205	205
<b>SUB TOTAL SOUTH</b>	<b>19816</b>	<b>22043</b>	<b>23441</b>	<b>24415</b>	<b>24699</b>	<b>1621</b>	<b>1597</b>	<b>1595</b>	<b>1508</b>	<b>1501</b>
<b>All India</b>	<b>69089</b>	<b>77095</b>	<b>83027</b>	<b>86855</b>	<b>87984</b>	<b>6521</b>	<b>6439</b>	<b>6436</b>	<b>6414</b>	<b>6344</b>

Source: Oil companies (Includes dealers of private oil companies); P-Provisional

On all India basis the percentage growth in the number of retail outlets from 01.04.2020 to 01.10.2023 has been 27%. The region wise growth is highest for the North Eastern region (48%), followed by Western region (31%), Northern region (28%), Southern region (25%) and Eastern region (22%)

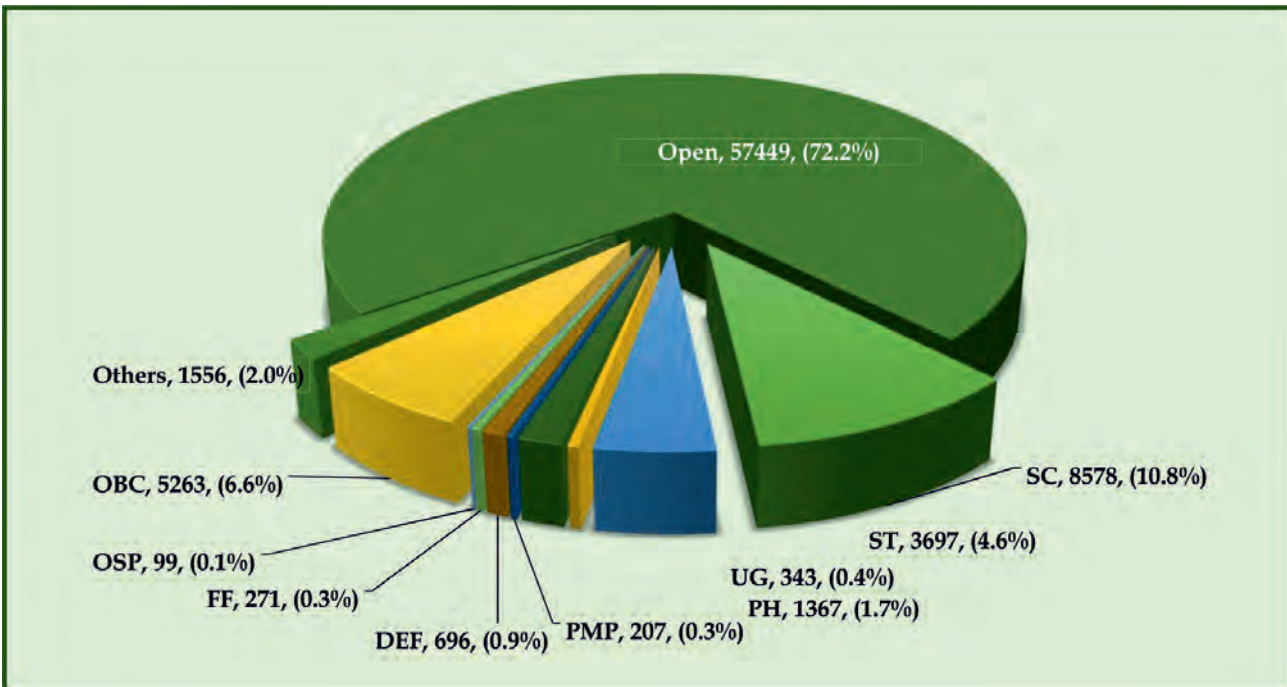
· As many states have become kerosene free in the last five years and due to voluntary surrender of PDS kerosene quota by some others there has been a decline in the number of kerosene dealers in the country.

All India number of retail outlets in PSU and private category



On 1.10.2023 the number of public sector oil company owned retail outlets was 79526 out of a total of 87984 outlets on all India basis, whereas the number of retail outlets owned by private oil companies was 8458. Participation by private sector in retail outlet business started in FY 2004 with 27 retail outlets. As on 01.10.2023 it accounted for 9.6% of the total market representation.

Category wise PSU Retail Outlets (Total 79526) as on 01.10.2023



Note:

- (1) SC: Scheduled Caste; ST: Scheduled Tribe; UG: Unemployed Graduate; UEG: Unemployed Engineering Graduate.; PH: Physically Handicapped; DEF: Defence Category; FF: Freedom Fighter; OSP: Outstanding Sports Persons; OBC: Other Backward Classes; PMP: Para Military/Police/Govt. Personnel; Others: Includes Social Worker Category, Dealerships given on compassionate grounds/ under discretionary quota, 2/3 wheeler outlets and Company Owned and Operated outlets, Operation Vijay.
- (2) Open category also includes private oil company retail outlets.
- (3) OP: Open Category

Table 6.7: Industry marketing infrastructure as on 01.10.2023 (P)

Particulars	IOCL	BPCL	HPCL	RIL/RBML/ RSIL	NEL	SHELL	MRPL & Others	Total
POL Terminal/ Depots (Nos.)\$	126	83	81	18	3		6	317
Aviation Fuel Stations (Nos.)@	132	65	54	30			2	283
Retail Outlets (total) (Nos.),^	36,693	21,330	21,431	1,655	6,454	349	72	87,984
out of which Rural ROs	11,898	5,348	5,297	130	2,090	89	25	24,877
SKO/LDO agencies (Nos.)	3,849	927	1,638					6,414
LPG Distributors (total) (Nos.) (PSUs only)	12,868	6,245	6,312					25,425
LPG Bottling plants (Nos.) (PSUs only)#	98	53	56				3	210
LPG Bottling capacity (TMTPA) (PSUs only)&	10,782	4,890	6,530				203	22,405
"LPG active domestic consumers (Nos. crore) (PSUs only)"	14.7	8.1	8.7					31.5

P: **provisional**; \$(Others=4 MRPL & 2 NRL); @(Others=Shell|MRPL); ^ (Others=MRPL); # (Others=NRL-1, OIL-1, CPCL-1); & (Others=NRL-60, OIL-23, CPCL-120); RBML-Reliance BP Mobility



**Table 6.8 : Break-up of consumption data (PSU and Private)**

(Thousand metric tonne)

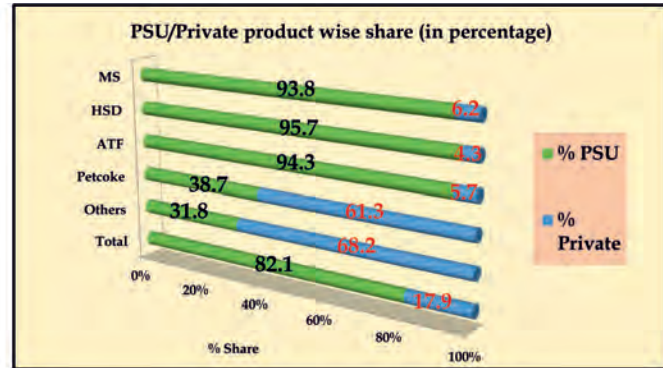
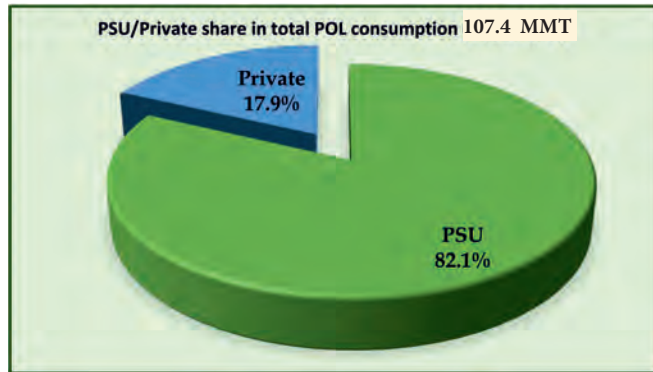
Product	2020-21			2021-22 (P)			2022-23 (P)			H1FY2022-23			H1FY2023-24(P)		
	PSU	Private	Total	PSU	Private	Total	PSU	Private	Total	PSU	Private	Total	PSU	Private	Total
LPG	27494	64	27558	28253	0	28253	28253	0	28253	13774	0	13774	14135	0	14135
MS	25168	2801	27969	27905	2944	30849	27905	2944	30849	16335	1088	17424	17034	1479	18514
Naphtha	6050	8051	14100	6426	6820	13246	6426	6820	13246	2869	3098	5966	3194	3381	6575
ATF	3525	172	3698	4707	301	5008	4707	301	5008	3303	200	3503	3668	299	3966
SKO	1795	3	1798	1493	0	1493	1493	0	1493	281	0	281	257	0	257
HSD	64504	8208	72713	68411	8248	76659	68411	8248	76659	39617	1772	41389	39876	4114	43989
LDO	713	142	855	765	252	1017	765	252	1017	308	44	353	330	67	397
Lubes	1475	2622	4097	1563	2977	4540	1563	2977	4540	635	1094	1729	842	1134	1976
FO/LSHS	4925	662	5586	5542	720	6262	5542	720	6262	3038	361	3399	2914	390	3304
Bitumen	5356	2168	7524	5093	2723	7816	5093	2723	7816	2208	1037	3245	2379	1676	4055
PetCoke	5034	10571	15605	6110	8145	14255	6110	8145	14255	3397	5380	8776	3476	6249	9724
Others	4149	8643	12791	5073	7224	12297	5073	7224	12297	2412	5162	7573	2402	4999	7401
<b>Total</b>	<b>150189</b>	<b>44107</b>	<b>194295</b>	<b>161343</b>	<b>40354</b>	<b>201697</b>	<b>161343</b>	<b>40354</b>	<b>201697</b>	<b>88177</b>	<b>19236</b>	<b>107413</b>	<b>90506</b>	<b>23788</b>	<b>114294</b>

**Source:** Oil companies, Directorate General of Commercial Intelligence and Statistics (DGCIS) & SEZ data (included from FY 2017-18 onwards).

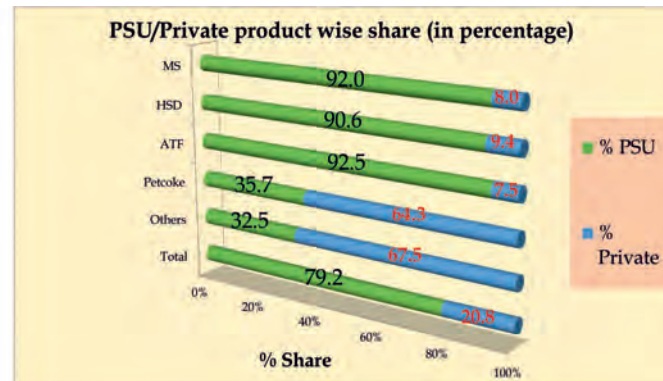
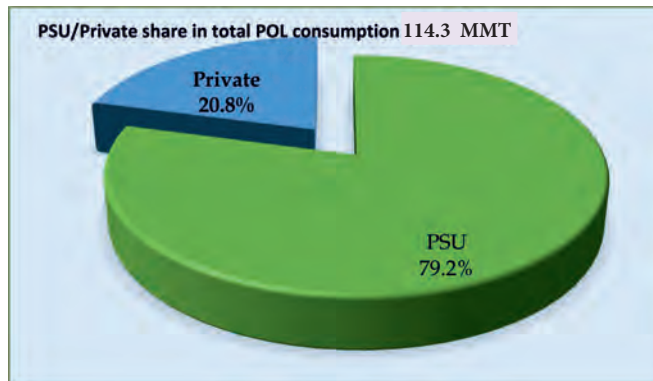
(Oil company sales+Private imports+SEZ sales to DTA=Consumption)

**Note:** Private consumption includes direct imports as well as marketing by private oil companies.

**H1 FY 2022-23**



**H1 FY 2023-24 (P)**

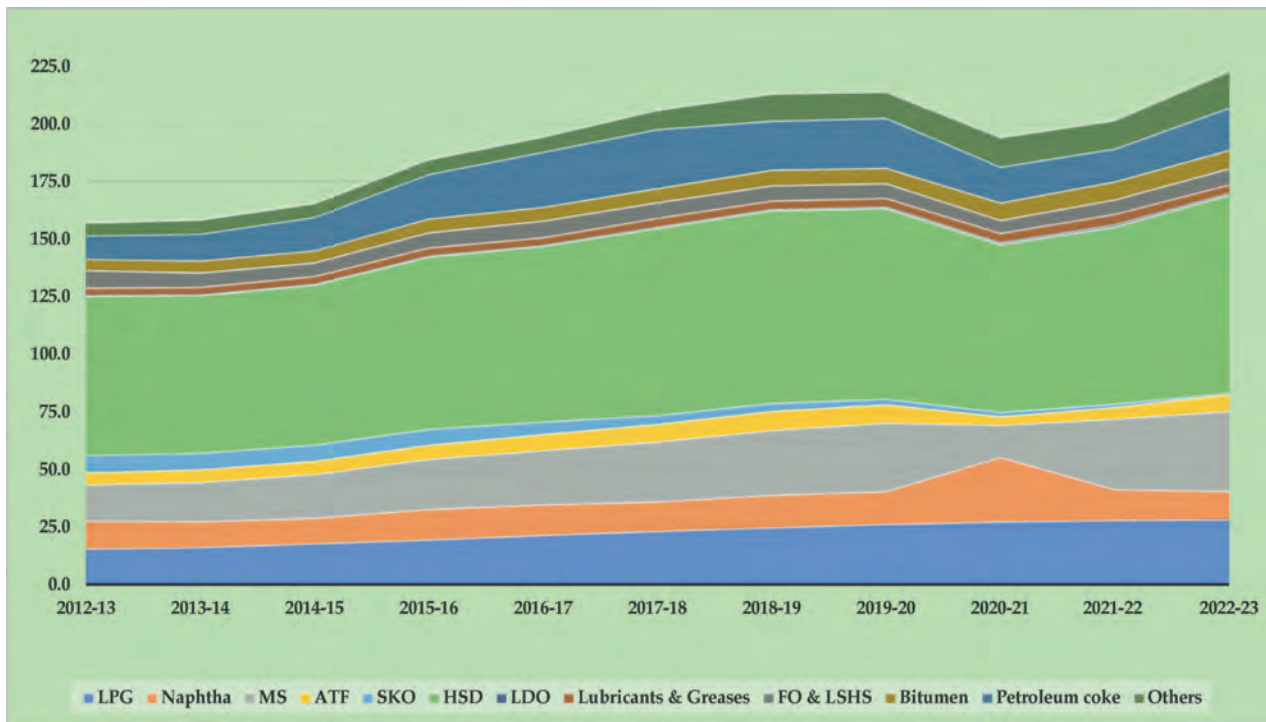


**Note:** In the above bar charts; others include all other products except MS, HSD, ATF & Petcoke.

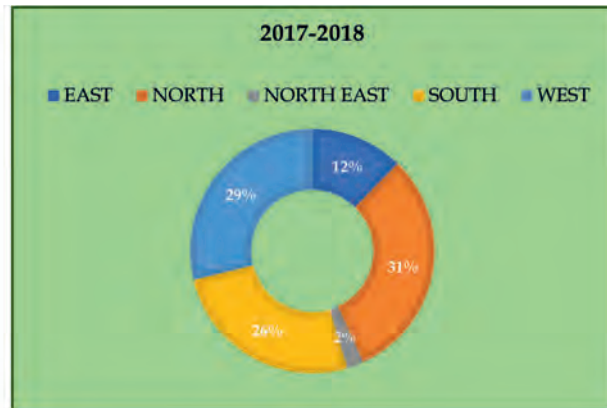
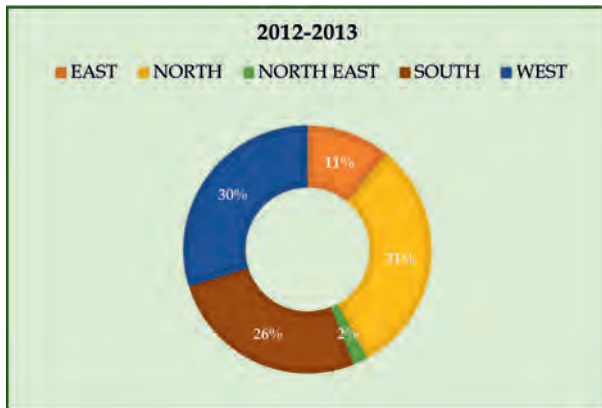
- The share of the public sector in total POL consumption using H1 FY2023-24 decreased by 2.9% as compared to the same period of previous year
- The HSD, MS, Petcoke and ATF market sales in Private category increased by 5.1%, 1.7%, 3% & 1.8% respectively during H1 FY2023-24 compared to H1FY2022-23

POL consumption by product

Million metric tonnes



Zone Distribution of total domestic POL sales in India



**Table 6.9: Oil industry Alternate fuel & AFS infrastructure at retail outlets as on 01.10.2023**

State/UT	CNG_CBG_LNG	EV CHARGING	AUTO LPG	AVIATION FUEL STATION
Chandigarh	11	11	5	1
Delhi	262	134	3	6
Haryana	293	490	2	1
Himachal Pradesh	19	64	0	2
Jammu and Kashmir	0	96	3	9
Ladakh	0	2	0	1
Punjab	246	348	10	12
Rajasthan	283	667	24	14
Uttar Pradesh	826	1176	37	20
Uttarakhand	39	97	5	3
<b>SUB TOTAL NORTH</b>	<b>1979</b>	<b>3085</b>	<b>89</b>	<b>69</b>
Andaman & Nicobar Islands	0	3	0	3
Bihar	123	224	1	6
Jharkhand	92	192	0	8
Odisha	100	320	4	9
West Bengal	71	435	37	12
<b>SUB TOTAL EAST</b>	<b>386</b>	<b>1174</b>	<b>42</b>	<b>38</b>
Arunachal Pradesh	0	31	0	10
Assam	7	176	0	14
Manipur	0	33	0	2
Meghalaya	0	32	0	2
Mizoram	0	2	0	2
Nagaland	0	14	0	2
Sikkim	0	2	0	1
Tripura	20	31	0	2
<b>SUB TOTAL NORTH EAST</b>	<b>27</b>	<b>321</b>	<b>0</b>	<b>35</b>
Chhattisgarh	8	188	4	6
Dadra & Nagar Haveli and Daman & Diu	10	2	0	3
Goa	15	33	1	11
Gujarat	748	704	18	16
Madhya Pradesh	274	494	25	10
Maharashtra	713	763	54	23
<b>SUB TOTAL WEST</b>	<b>1768</b>	<b>2184</b>	<b>102</b>	<b>69</b>
Andhra Pradesh	167	367	12	13
Karnataka	291	920	145	16
Kerala	145	287	45	13
Lakshadweep	0	1	0	1
Puducherry	6	18	2	1
Tamil Nadu	263	781	109	22
Telangana	148	421	61	6
<b>SUB TOTAL SOUTH</b>	<b>1020</b>	<b>2795</b>	<b>374</b>	<b>72</b>
<b>All India</b>	<b>5180</b>	<b>9559</b>	<b>607</b>	<b>283</b>

Source: Oil companies



Table 6.10 : Ethanol blending programme

Si. no.	State	(1st December 2021 to 30th Nov 2022 (P) )		(1st December 2022 to 30th September 2023 (P) )	
		Ethanol received by PSU OMCs under EBP program (Quantity Cr. Litrs)	Average percentage blending sales (EBP%)**	Ethanol received by PSU OMCs under EBP program (Quantity Cr. Litrs)	Average percentage blending sales (EBP%)**
1	Andhra Pradesh	17.20	10.2%	19.99	11.7%
2	Andaman & Nicobar	0.00	0.0%	0.00	0.0%
3	Arunachal Pradesh	0.00	6.0%	0.04	11.5%
4	Assam	3.93	5.8%	7.54	11.7%
5	Bihar	13.88	10.6%	14.36	12.0%
6	Chandigarh	0.00	9.8%	0.21	11.3%
7	Chhattisgarh	7.69	9.3%	9.90	11.0%
8	Dadar & Nagar Haveli and Daman & Diu	0.00	10.0%	0.18	11.9%
9	Delhi	11.51	10.4%	12.64	11.7%
10	Goa	2.34	9.3%	2.66	11.1%
11	Gujarat	21.95	10.5%	23.83	11.7%
12	Haryana	21.56	10.5%	26.17	11.9%
13	Himachal Pradesh	2.72	9.2%	2.87	11.1%
14	Jammu & Kashmir	0.89	9.8%	1.14	11.6%
15	Jharkand	6.06	8.8%	7.87	11.9%
16	Karnataka	32.50	10.5%	33.25	11.8%
17	Lakshadweep	0.00	0.0%	0.00	8.6%
18	Kerala	19.04	9.7%	21.21	11.5%
19	Ladakh	0.00	0.0%	0.04	6.9%
20	Madhya Pradesh	17.02	10.3%	20.63	12.0%
21	Maharashtra	52.66	10.5%	50.79	11.9%
22	Manipur	0.00	5.3%	0.02	11.2%
23	Meghalaya	0.00	6.3%	0.20	11.4%
24	Mizoram	0.00	5.7%	0.03	11.4%
25	Nagaland	0.00	4.3%	0.04	11.2%
26	Odisha	9.76	9.0%	12.61	11.4%
27	Puducherry	0.00	8.8%	0.41	11.5%
28	Punjab	16.56	10.3%	17.76	11.8%
29	Rajasthan	19.91	10.0%	21.51	11.5%
30	Sikkim	0.00	4.0%	0.02	9.9%
31	Tamil Nadu	34.99	10.1%	42.88	11.9%
32	Telangana	17.92	10.2%	19.69	11.3%
33	Tripura	0.00	7.2%	0.04	11.4%
34	Uttar Pradesh	63.11	10.7%	68.23	12.0%
35	Uttarakhand	2.65	10.3%	3.39	12.0%
36	West Bengal	12.26	8.7%	16.14	11.6%
	<b>Grand Total</b>	<b>408.1</b>	<b>8.10%</b>	<b>458.3</b>	<b>11.73%</b>

\* Ethanol Supply Year : Ethanol supplies take place between 1st December of the present year to 30th November of the following year.

\*\*EBP %age in all the States has been calculated based on the MS sale in the geographical limit of the respective State. In the States/UTs where receipt is zero but EBP %age has been calculated is due to the fact that sale of Ethanol blended MS which comes from nearby supply locations of other States contribute to the EBP %age in this State/UTs.

**Note:** With effect from 01.04.2019, EBP Programme has been extended to whole of India except UTs of Andaman & Nicobar Islands and Lakshadweep.



# Chapter-7

# LPG





## Chapter - Highlights

- Cabinet approves expansion of Ujjwala Yojana (PMUY) in Sep' 2023 for 75 lakh additional LPG connections to be released in 3 years (2023-24 to 2025-26). It will take total number of PMUY beneficiaries to 10.35 crore.
- The PMUY scheme has covered around 9.59 crore beneficiaries since its launch in May 2016. As on 1.10.2023, the highest percentage of PMUY connections since inception of the scheme on 1.5.2016 have been released in Eastern region (33.5%), followed by Northern region (29.7%), Western region (21.4%), Southern region (9.9%) and North-east region (5.5%).
- PSU OMCs sold nearly 14.43 MMT of LPG during Apr'23-Sep'23 and recorded YoY growth of 2.4% in total LPG sales as compared to Apr'22-Sep'22.
- Highest LPG consumption in Northern region (31%) followed by Southern (27%), Western (23%), Eastern (16%) and North-eastern region (3%) during in Apr'23-Sep'23.
- Packed domestic segment dominated LPG consumption on all India basis with a share of around 86.3% followed by Packed non-domestic segment (9.4%), Bulk sales (4.0%) and Auto LPG sales (0.3%) in Apr'23-Sep'23.
- PSU OMCs have a total of 210 LPG bottling plants all over India with rated bottling capacity of around 22.41 million metric tonne per annum (MMTPA).
- 20.03 lakh new domestic customers were enrolled by PSU OMCs during Apr'23-Sep'23. During the same period, PSU OMCs have added 40 distributorships.
- The total LPG tankage on all-India basis is around 1189.7 TMT which is equivalent to about 15 days of consumption.
- PSU OMCs have a total of 496 (including 60 ALDS with nil sales) Auto LPG Dispensing Stations (ALDS) all over India for catering to LPG demand in the automotive sector. The total auto LPG sales of PSU OMCs was about 47.8 TMT during Apr'23-Sep'23 out of which around 78.9% sales were in the Southern region.
- As on 1.10.2023 PSU OMCs (IOCL, BPCL and HPCL) together have 31.54 crore active LPG customers in the domestic category who are being served by 25,425 LPG distributors.

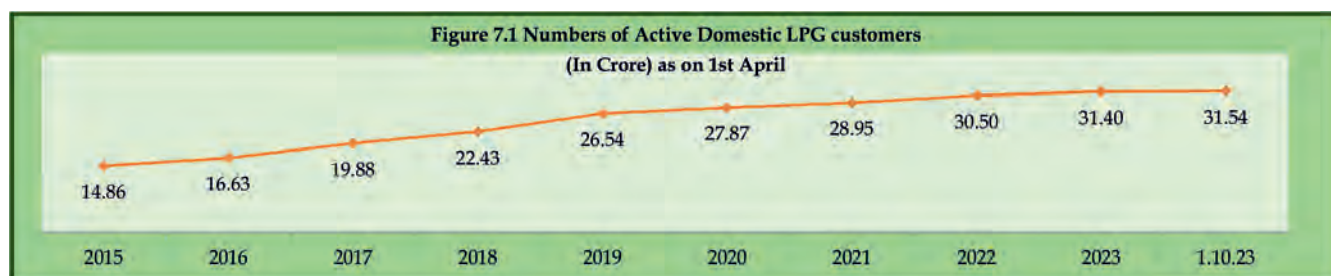
**Table 7.1 : LPG marketing at a glance**

Particulars	2019-20	2020-21	2021-22	2022-23 (P)	Apr-Sep 2022	Apr-Sep 2023(P)
	(Thousand metric tonne)					
<b>LPG production</b>	<b>12823</b>	<b>12072</b>	<b>12238</b>	<b>12831</b>	<b>6364</b>	<b>6308</b>
<b>LPG consumption</b>	<b>26330</b>	<b>27540</b>	<b>28253</b>	<b>28503</b>	<b>14091</b>	<b>14427</b>
<b>PSU sales</b>	<b>26126</b>	<b>27476</b>	<b>28253</b>	<b>28503</b>	<b>14091</b>	<b>14427</b>
of which:						
Domestic	23076	25117	25502	25382	12392	12444
Non-Domestic	2614	1885	2239	2606	1148	1359
Bulk	263	355	391	409	495	576
Auto LPG	172	118	122	107	55	48
<b>Imports</b>	<b>14809</b>	<b>16476</b>	<b>17125</b>	<b>18309</b>	<b>8672</b>	<b>8315</b>
of which:						
PSU imports	14605	16412	17125	18309	8672	8315
Private imports	204	64	0.1	0.1	0.0	0.1
<b>Import dependency percentage of LPG<sup>^</sup></b>	<b>51%</b>	<b>56%</b>	<b>57%</b>	<b>55%</b>	<b>55%</b>	<b>56%</b>
	(Lakh)					
Enrolment (domestic)	161.1	85.8	158.4	101.2	78.6	20.0
As on	1.4.2020	1.4.2021	1.4.2022	1.4.2023	1.10.2022	1.10.2023
LPG active domestic customers	2,787	2,895	3,053	3,140	3,123	3,154
PMUY beneficiaries	802	800	899	959	954	959
Non-domestic customers	32.4	33.9	35.2	35.9	35.5	36.2
	(Percent)					
LPG coverage (Estimated)	97.5	99.8	*	*	*	*
	(Numbers)					
<b>LPG distributors</b>	<b>24670</b>	<b>25083</b>	<b>25269</b>	<b>25385</b>	<b>25326</b>	<b>25425</b>
of which:						
Shehri Vitrak	7914	7899	7894	7925	7923	7917
Rurban Vitrak	3671	3697	3720	3716	3715	3730
Gramin & Durgam Kshetriya Vitrak	13085	13487	13655	13744	13688	13778
Auto LPG dispensing stations (ALDS)	657	651	601	525	570	496
	(Thousand metric tonne per annum)					
<b>Bottling capacity (rated)</b>	<b>20292</b>	<b>21249</b>	<b>21573</b>	<b>22225</b>		<b>22405</b>
	(Thousand metric tonne)					
<b>Gross tannage</b>	<b>978</b>	<b>994</b>	<b>1088</b>	<b>1178</b>	<b>1116</b>	<b>1190</b>

Source: Oil companies & Directorate General of Commercial Intelligence and Statistics (DGCIS); \*PSU OMCs

Note:

1. Data in respect of enrolment, customers, distributors, ALDS and rated bottling capacity pertain to PSU OMCs only.
2. Gross tannage includes LPG tannage at LPG bottling plants owned by PSU oil companies, all refineries, fractionators and LPG import terminals.
3. MOPNG vide letter no. P-20019/2/2016-LPG dated 23 June 2016 had issued unified guidelines for selection of LPG distributors. In the said guidelines, LPG distributor categories have been redefined. The historical data on LPG distributors has been rearranged in line with the new classification for comparison.
4. \*\* The LPG coverage is calculated by PSU OMCs based upon the active LPG domestic connections and the estimated number of households. The number of households has been projected by PSU OMCs based on 2011 census data. Factors like increasing nuclearization of families, migration of individuals/ families due to urbanization and reduction in average size of households etc. impact the growth of number of households. Due to these factors, the estimated no. of households through projection of 2011 census data may slightly differ from the actual no. of households in a State/UT. Further, this methodology does not include PNG (domestic) connections.
5. <sup>^</sup>Import dependency percentage of LPG =  $\{1-(\text{production}/\text{consumption})\} \times 100\%$

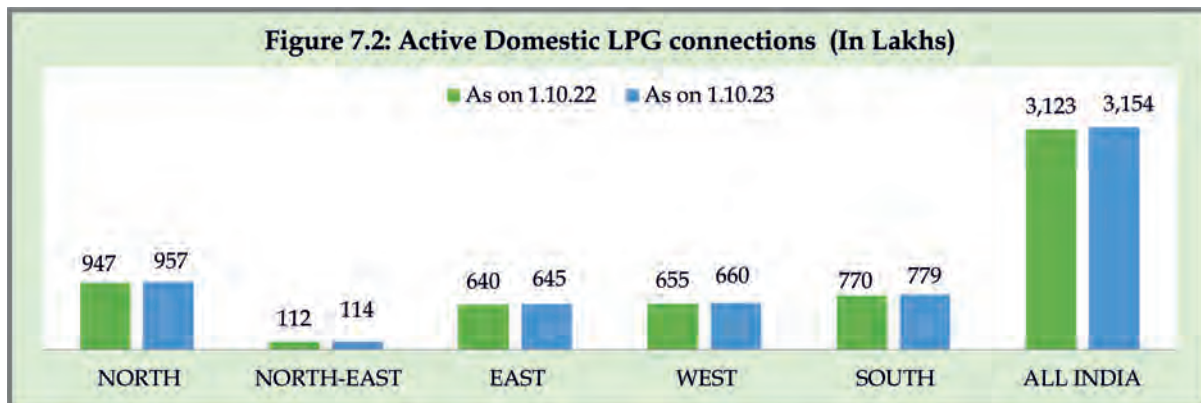


**Table 7.2 : State-wise Active Domestic LPG connections as on 01.10.2023(P)**

(Number in lakhs)

State/UT	Number of connections
Chandigarh	2.96
Delhi	54.22
Haryana	76.77
Himachal Pradesh	21.64
Jammu & Kashmir	34.62
Ladakh	0.96
Punjab	93.93
Rajasthan	176.49
Uttar Pradesh	464.30
Uttarakhand	30.73
<b>SUB TOTAL NORTH</b>	<b>956.63</b>
Arunachal Pradesh	3.12
Assam	84.08
Manipur	6.59
Meghalaya	4.14
Mizoram	3.49
Nagaland	3.39
Sikkim	1.73
Tripura	7.94
<b>SUB TOTAL NORTH EAST</b>	<b>114.47</b>
Andaman & Nicobar Islands	1.24
Bihar	215.67
Jharkhand	62.86
Odisha	97.09
West Bengal	267.81
<b>SUB TOTAL EAST</b>	<b>644.67</b>
Chhattisgarh	59.18
Dadra & Nagar Haveli And Daman & Diu	1.67
Goa	5.55
Gujarat	121.09
Madhya Pradesh	166.83
Maharashtra	305.59
<b>SUB TOTAL WEST</b>	<b>659.90</b>
Andhra Pradesh	150.13
Karnataka	179.54
Kerala	95.72
Lakshadweep	0.11
Puducherry	3.97
Tamilnadu	227.76
Telangana	121.57
<b>SUB TOTAL SOUTH</b>	<b>778.81</b>
<b>ALL INDIA</b>	<b>3154.48</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

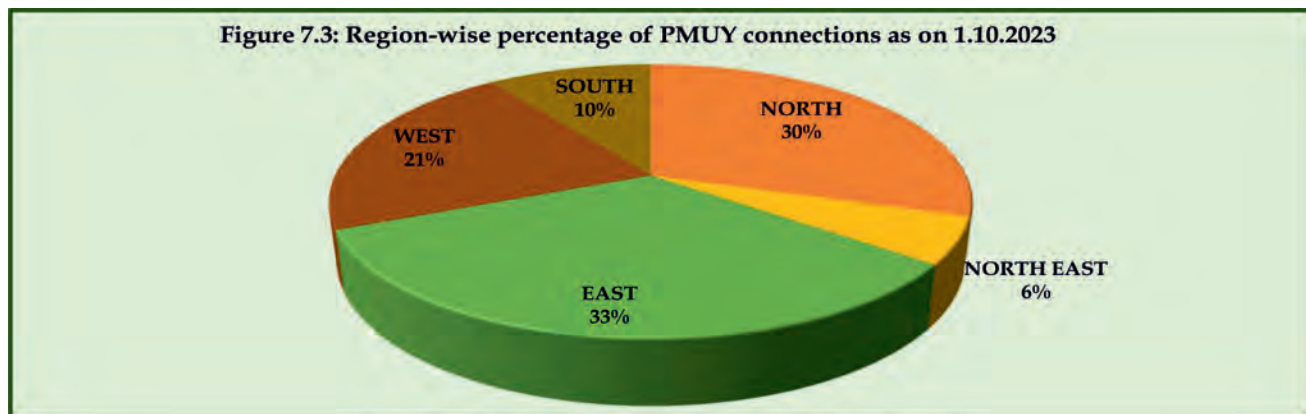


**Table 7.3 : State-wise PMUY connections as on 01.10.2023 (P)**

(Number in lakhs)

State/UT	Number of PMUY connections
Chandigarh	0.00659
Delhi	1.42
Haryana	7.67
Himachal Pradesh	1.41
Jammu & Kashmir	12.45
Ladakh	0.11
Punjab	12.84
Rajasthan	69.26
Uttar Pradesh	175.01
Uttarakhand	4.96
<b>Sub Total North</b>	<b>285.14</b>
Arunachal Pradesh	0.49
Assam	44.14
Manipur	2.02
Meghalaya	2.15
Mizoram	0.34
Nagaland	0.92
Sikkim	0.14
Tripura	2.84
<b>Sub Total North East</b>	<b>53.03</b>
Andaman & Nicobar Islands	0.13
Bihar	107.35
Jharkhand	36.46
Odisha	53.21
West Bengal	123.71
<b>Sub Total East</b>	<b>320.87</b>
Chhattisgarh	34.92
Dadra & Nagar Haveli and Daman & Diu	0.15
Goa	0.01
Gujarat	38.43
Madhya Pradesh	82.27
Maharashtra	48.90
<b>Sub Total West</b>	<b>204.68</b>
Andhra Pradesh	5.12
Karnataka	37.57
Kerala	3.41
Lakshadweep	0.00
Puducherry	0.15
Tamil Nadu	37.04
Telangana	11.53
<b>Sub Total South</b>	<b>94.83</b>
<b>All India</b>	<b>958.55</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)



**Table 7.4 : LPG domestic customers enrolment (14.2 kg/5 kg) by PSU OMCs**

(Number in lakhs)

State/UT	April-September-2022			April-September-2023 (P)		
	14.2 Kg	5 Kg	Total	14.2 Kg	5 Kg	Total
Chandigarh	0.03	0.0003	0.03	0.02	0.0003	0.02
Delhi	0.70	0.0160	0.72	0.35	0.0038	0.35
Haryana	1.01	0.0025	1.01	0.63	0.0030	0.63
Himachal Pradesh	0.30	0.0027	0.30	0.14	0.0015	0.14
Jammu & Kashmir	0.19	0.0030	0.19	0.11	0.0007	0.11
Ladakh	0.01	0.0020	0.02	0.01	0.0001	0.01
Punjab	0.93	0.0905	1.02	0.39	0.0030	0.40
Rajasthan	3.48	0.1766	3.66	0.86	0.0039	0.86
Uttar Pradesh	10.03	0.0503	10.08	2.06	0.0186	2.08
Uttarakhand	0.81	0.0325	0.84	0.31	0.0010	0.31
<b>Sub Total North</b>	<b>17.49</b>	<b>0.38</b>	<b>17.86</b>	<b>4.89</b>	<b>0.04</b>	<b>4.92</b>
Arunachal Pradesh	0.08	0.0005	0.08	0.05	0.0008	0.05
Assam	4.10	0.0270	4.12	0.32	0.0025	0.33
Manipur	0.28	0.0001	0.28	0.03	0.0000	0.03
Meghalaya	0.31	0.0060	0.32	0.04	0.0005	0.05
Mizoram	0.07	0.0003	0.07	0.04	0.0029	0.04
Nagaland	0.15	0.0002	0.15	0.03	0.0001	0.03
Sikkim	0.04	0.0001	0.04	0.02	0.0002	0.02
Tripura	0.14	0.0003	0.14	0.06	0.0008	0.1
<b>Sub Total North-East</b>	<b>5.16</b>	<b>0.03</b>	<b>5.19</b>	<b>0.59</b>	<b>0.01</b>	<b>0.60</b>
Andaman & Nicobar Islands	0.02	0.0003	0.02	0.02	0.0015	0.02
Bihar	7.32	0.0782	7.40	1.07	0.0054	1.08
Jharkhand	1.91	0.0298	1.94	0.32	0.0022	0.33
Odisha	1.93	0.0068	1.94	0.40	0.0041	0.41
West Bengal	14.98	0.0383	15.02	0.98	0.0132	0.99
<b>Sub Total East</b>	<b>26.17</b>	<b>0.15</b>	<b>26.32</b>	<b>2.80</b>	<b>0.03</b>	<b>2.82</b>
Chhattisgarh	1.53	0.0230	1.55	0.22	0.0020	0.23
Dadra & Nagar Haveli and Daman & Diu	0.03	0.0001	0.03	0.02	0.0001	0.02
Goa	0.08	0.0000	0.08	0.06	0.0000	0.06
Gujarat	4.71	0.1177	4.83	0.81	0.0027	0.81
Madhya Pradesh	3.22	0.0869	3.31	0.67	0.0072	0.68
Maharashtra	5.28	0.0314	5.32	2.98	0.0075	2.98
<b>Sub Total West</b>	<b>14.85</b>	<b>0.26</b>	<b>15.11</b>	<b>4.76</b>	<b>0.02</b>	<b>4.78</b>
Andhra Pradesh	1.94	0.0015	1.94	0.83	0.0038	0.83
Karnataka	4.46	0.0416	4.50	1.75	0.0095	1.76
Kerala	1.31	0.0066	1.32	0.73	0.0034	0.74
Lakshadweep	0.00	0.0000	0.00	0.00	0.0000	0.00
Puducherry	0.04	0.0001	0.04	0.03	0.0005	0.04
Tamil Nadu	4.40	0.0495	4.45	2.21	0.0474	2.26
Telangana	1.84	0.0028	1.84	1.27	0.0087	1.28
<b>Sub Total South</b>	<b>13.98</b>	<b>0.10</b>	<b>14.09</b>	<b>6.83</b>	<b>0.07</b>	<b>6.90</b>
<b>All India</b>	<b>77.65</b>	<b>0.93</b>	<b>78.58</b>	<b>19.86</b>	<b>0.16</b>	<b>20.03</b>

Source: PSU OMCs (IOCL, BPCL and HPCL)

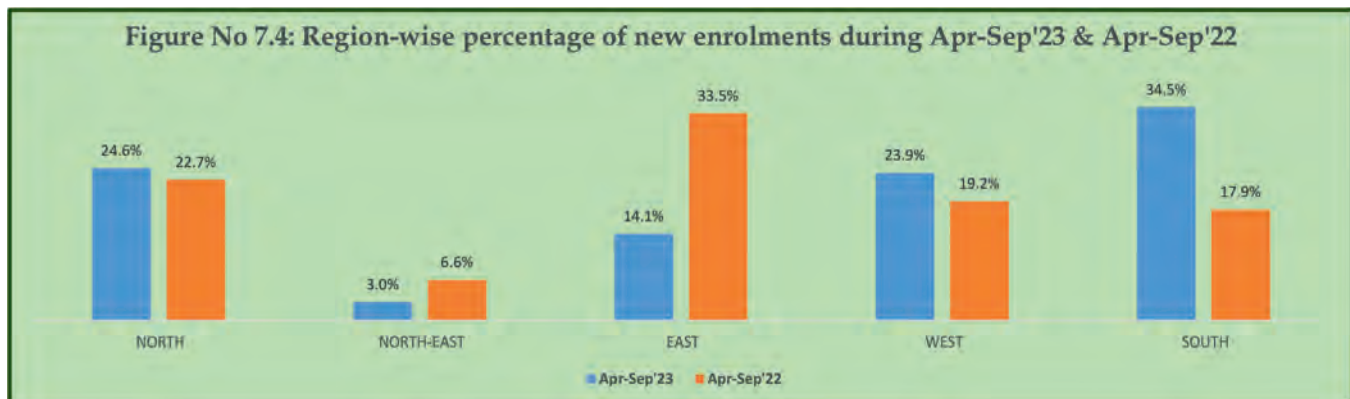


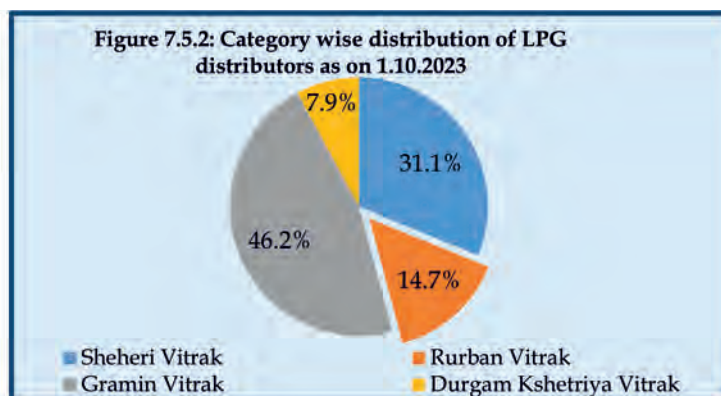
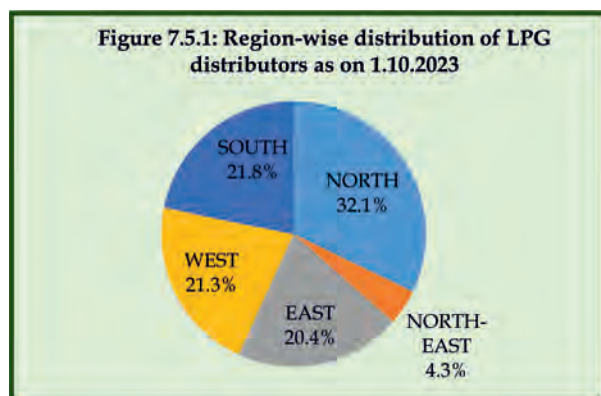


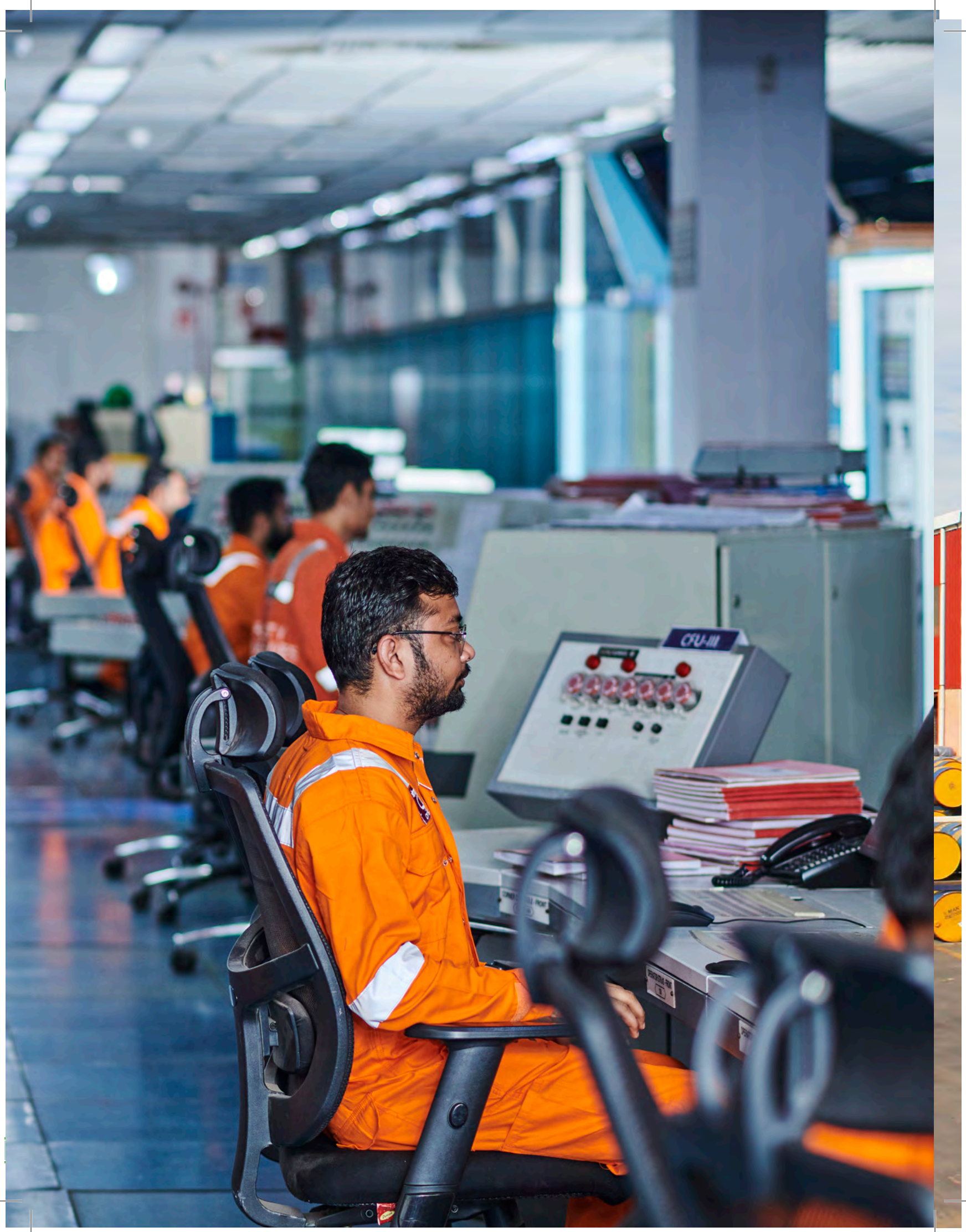
Table 7.5 :LPG distributors as on 01.10.2023 (P)

(Nos.)

State/UT	Sheheri Vitrak	Rurban Vitrak	Gramin Vitrak	Durgam Kshetriya Vitrak	Total
Chandigarh	26	0	0	0	26
Delhi	317	0	0	0	317
Haryana	282	102	232	9	625
Himachal Pradesh	69	13	91	35	208
Jammu & Kashmir	125	34	74	39	272
Ladakh	0	13	2	9	24
Punjab	334	255	248	21	858
Rajasthan	435	163	654	133	1385
Uttar Pradesh	1007	706	2306	122	4141
Uttarakhand	114	105	58	40	317
<b>Sub Total North</b>	<b>2709</b>	<b>1391</b>	<b>3665</b>	<b>408</b>	<b>8173</b>
Arunachal Pradesh	6	6	33	40	85
Assam	128	101	306	61	596
Manipur	15	13	36	38	102
Meghalaya	21	9	19	16	65
Mizoram	11	6	26	16	59
Nagaland	15	11	17	40	83
Sikkim	9	1	9	10	29
Tripura	18	8	46	9	81
<b>Sub Total North-East</b>	<b>223</b>	<b>155</b>	<b>492</b>	<b>230</b>	<b>1100</b>
Andaman & Nicobar Islands	0	4	5	1	10
Bihar	240	252	1498	39	2029
Jharkhand	163	51	353	20	587
Odisha	173	100	577	113	963
West Bengal	405	164	944	74	1587
<b>Sub Total East</b>	<b>981</b>	<b>571</b>	<b>3377</b>	<b>247</b>	<b>5176</b>
Chhattisgarh	105	75	173	182	535
Dadra & Nagar Haveli and Daman & Diu	5	1	1	0	7
Goa	44	4	5	2	55
Gujarat	424	120	482	13	1039
Madhya Pradesh	473	210	484	385	1552
Maharashtra	1006	193	844	190	2233
<b>Sub Total West</b>	<b>2057</b>	<b>603</b>	<b>1989</b>	<b>772</b>	<b>5421</b>
Andhra Pradesh	320	267	425	106	1118
Karnataka	534	139	546	51	1270
Kerala	225	131	320	21	697
Lakshadweep	1	0	0	0	1
Puducherry	15	11	3	0	29
Tamil Nadu	565	361	609	107	1642
Telangana	287	101	332	78	798
<b>Sub Total South</b>	<b>1947</b>	<b>1010</b>	<b>2235</b>	<b>363</b>	<b>5555</b>
<b>All India</b>	<b>7917</b>	<b>3730</b>	<b>11758</b>	<b>2020</b>	<b>25425</b>

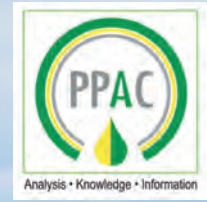
Source: PSU OMCs (IOCL, BPCL and HPCL)





# Chapter-8

# Prices & Taxes





## Chapter - Highlights

### Price & Taxes

- Crude oil is one of the most significant and influential natural resources in the energy mix in contemporary global economies. The fluctuations in the international prices of Crude oil and refined petroleum products have significant bearing on the global economic scenario, inflation, etc. The crude oil price fluctuation influences not only the oil importing and exporting countries but also the entire global economy in a significant way.
- Current fiscal year (FY 2023-24) started on a positive note with softening of international crude oil prices from the levels seen in 2022-23 after Russia - Ukraine war, due to various global events including weakening global economic outlook, rising US 10-year bond interest rates, etc leading to fall in monthly average prices of Dated Brent to \$74.70/bbl in June'23 from the average of \$95.95/bbl during 2022-23. However, prices of Dated Brent rose to monthly average of \$94.00/bbl in September'2023 due to supply concerns weighing on the global oil market after OPEC+ output cuts reached 5.16 million barrels per day (bpd) including voluntary output cut of 1.5 million bpd announced by Saudi Arabia and Russia in July 2023, or about 5% of global oil demand, in a series of steps that started in late 2022. The output cuts includes 3.66 million bpd by OPEC+ alliance till April 2023 besides additional voluntary cuts by Saudi Arabia and Russia. However, Brent prices have dropped by about 11.5% since September's monthly peak to average of \$83.18/bbl in November 2023 due to sluggish oil demand outlook and concerns about global economic scenario.
- The average price of Dated Brent during April to November 2023 has decreased to \$83.74/bbl from the average of \$95.95/bbl during 2022-23 i.e. decrease of 12.7%. Similarly, the average price of Indian Basket of crude oil during April to November 2023 has decreased to \$83.52/bbl from the average of \$93.15/bbl during 2022-23 i.e., decrease of 10.3%.
- Oil & Gas industry is one of the most important contributors to Central & State Exchequers. During the first half of the FY 2023-24, Petroleum sector contributed Rs.185,212 crores (Rs.428,067 crores for FY 2022-23) to Central exchequer by way of various Taxes /duties on crude oil & petroleum products, Corporate Income tax and other ways like dividend, etc. The Contribution of petroleum sector to State exchequer during first half of FY 2023-24 is Rs.155,723 crores (Rs. 320,651 crores for FY 2022-23) by way of VAT and other taxes, royalty, etc.
- The subsidy burden on petroleum products was Rs.4,596 crores during first half of FY 23-24 (Rs. 30,396 crores during FY 2022-23 including onetime grant of Rs.22,000 crores on account of under recovery on domestic LPG to OMCs).

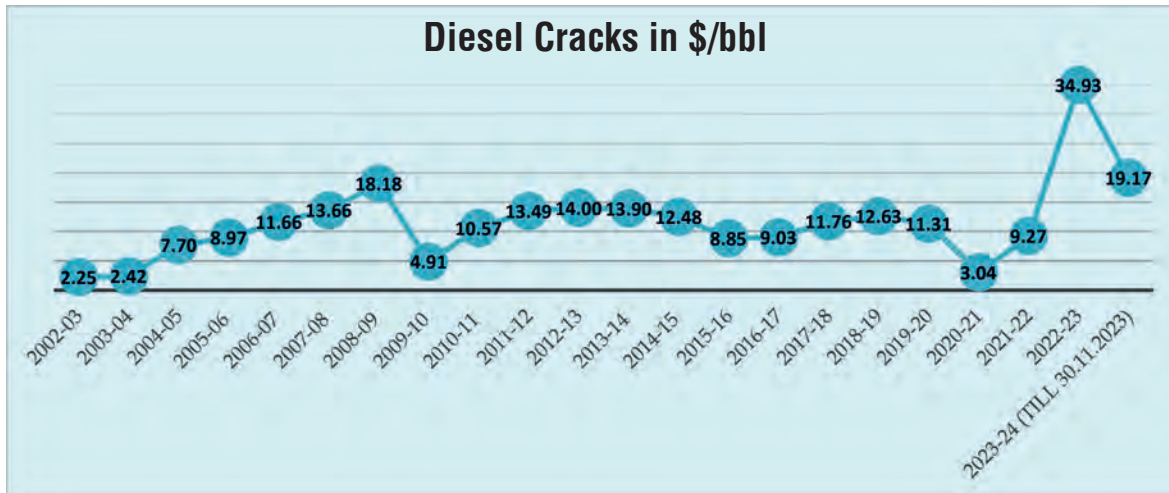
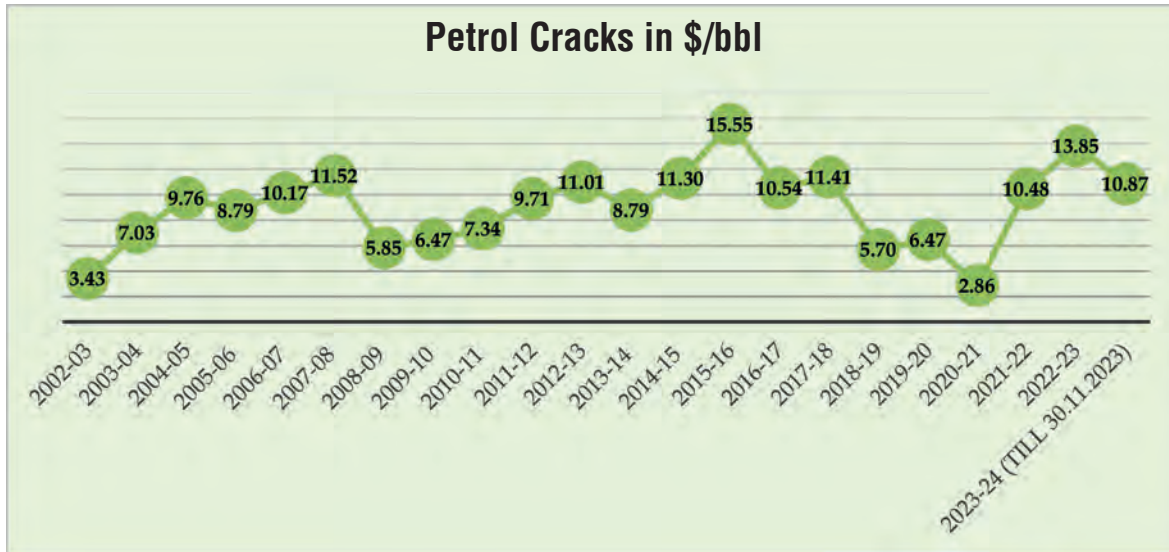
Table 8.1 : Indian Basket Crude Oil Price

Year	Indian basket
	(\$/bbl)
2002-03	26.60
2003-04	27.98
2004-05	39.21
2005-06	55.72
2006-07	62.46
2007-08	79.25
2008-09	83.57
2009-10	69.76
2010-11	85.09
2011-12	111.89
2012-13	107.97
2013-14	105.52
2014-15	84.16
2015-16	46.17
2016-17	47.56
2017-18	56.43
2018-19	69.88
2019-20	60.47
2020-21	44.82
2021-22	79.18
2022-23	93.15
2023-24 (Apr-Nov'23)	83.52
<b>2023 : Month wise</b>	
January	80.92
February	82.28
March	78.54
April	83.76
May	74.98
June	74.93
July	80.37
August	86.43
September	93.54
October	90.08
November	83.46

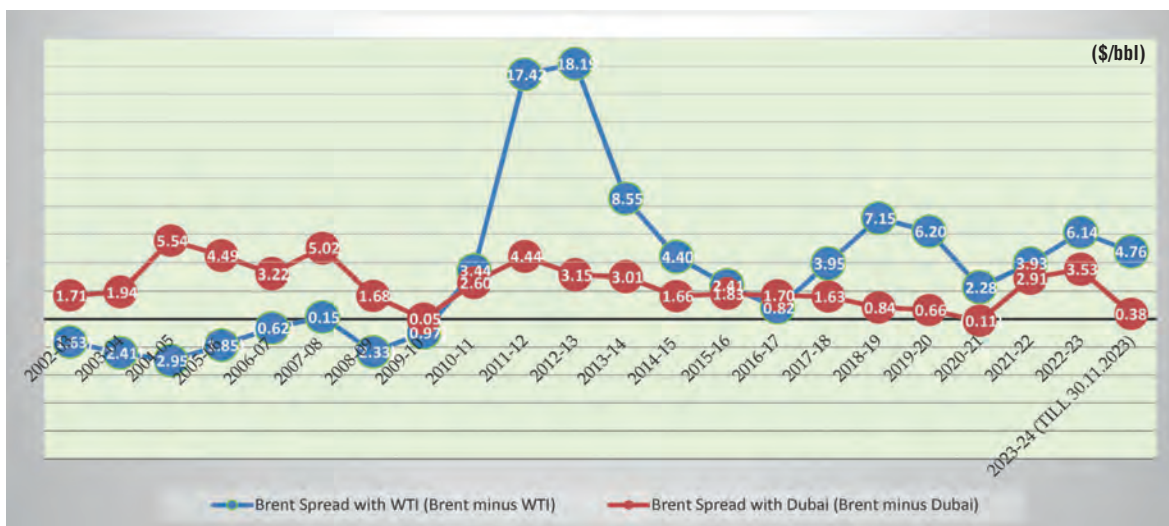
**Notes:**

<sup>1</sup>. The Indian basket of crude oil for the year 2020-21 & subsequent period is calculated based on a weightage of 75.62% for the price of sour grades of crude oil (average of Oman & Dubai) and 24.38% sweet grade of crude oil (Brent Dated). The percentages of 75.62 and 24.38 was based on the ratio of low sulphur and high sulphur crude oil processed (indigenous and imported) by all the Indian refineries (PSU and Pvt.) during the financial year i.e. 2019-20.

Trend in spread of petroleum products vs Indian basket of crude oil



Trend in spread of international benchmark of crude oils



**Table 8.2 : Price built-up of PDS Kerosene at Mumbai**

Elements	Unit	As on 01.11.2023
Price before taxes and dealers' commission	₹ / litre	67.41
Add : Dealers' commission	₹ / litre	2.66
Add : GST (incl GST on dealers' commission)	₹ / litre	3.50
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>73.57</b>

Source : As per IOCL.

**Table 8.3 : Price built-up of Domestic LPG at Delhi**

Elements	Unit	As on 01.11.2023
Price before taxes and distributors' commission	₹ / 14.2 kg cylinder	786.91
Add : Distributors' commission	₹ / 14.2 kg cylinder	73.08
Add : GST (including GST on distributors' commission)	₹ / 14.2 kg cylinder	43.01
<b>Retail selling price</b>	<b>₹ / 14.2 kg cylinder</b>	<b>903.00</b>

Source : As per IOCL.

**Table 8.4 : Price built-up of Petrol at Delhi**

Elements	Unit	As on 01.11.2023
Price charged to dealers (excluding excise duty and VAT)	₹ / litre	57.27
Add : Excise duty	₹ / litre	19.90
Add : Dealers' commission (average)	₹ / litre	3.84
Add : VAT (including VAT on dealers' commission)	₹ / litre	15.71
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>96.72</b>

Source : As per IOCL.

**Table 8.5 : Price built-up of Diesel at Delhi**

Elements	Unit	As on 01.11.2023
Price charged to dealers (excluding excise duty and VAT)	₹ / litre	58.07
Add : Excise duty	₹ / litre	15.80
Add : Dealers' commission (average)	₹ / litre	2.64
Add : VAT (including VAT on dealer's commission)	₹ / litre	13.11
<b>Retail selling price</b>	<b>₹ / litre</b>	<b>89.62</b>

Source : As per IOCL.

**Table 8.6 : Break up of Central excise duty on Petrol & Diesel (As on 01.11.2023)**

Particulars	₹/litre	
	Petrol	Diesel
Basic duty	1.40	1.80
Additional excise duty (Road & Infrastructure Cess)	5.00	2.00
Special additional excise duty	11.00	8.00
Agriculture Infrastructure and Development Cess	2.50	4.00
<b>Total excise duty</b>	<b>19.90</b>	<b>15.80</b>

Note - An additional Basic Excise duty @Rs 2/ltr has been levied on unblended petrol ( not blended with ethanol or methanol) intended for retail sale w.e.f. 01.11.2022.

**Table 8.6A : Excise duty on Export of MS, HSD & ATF and Special Additional Excise Duty (SAED) on Domestic Crude Production**

Effective Date	Excise duty on Export			SAED on production of Crude oil
	Motor Spirit	High Speed Diesel	Aviation Turbine Fuel	
	₹ /Ltr	₹ /Ltr	₹ /Ltr	₹ /MT
01-Jul-22	6.00	13.00	6.00	23,250.00
20-Jul-22	-	11.00	4.00	17,000.00
03-Aug-22	-	5.00	-	17,750.00
19-Aug-22	-	7.00	2.00	13,000.00
01-Sep-22	-	13.50	9.00	13,300.00
17-Sep-22	-	10.00	5.00	10,500.00
02-Oct-22	-	5.00	-	8,000.00
16-Oct-22	-	12.00	3.50	11,000.00
02-Nov-22	-	13.00	5.00	9,500.00
17-Nov-22	-	10.50	5.00	10,200.00
02-Dec-22	-	8.00	5.00	4,900.00
16-Dec-22	-	5.00	1.50	1,700.00
03-Jan-23	-	6.50	4.50	2,100.00
17-Jan-23	-	5.00	3.50	1,900.00
04-Feb-23	-	7.50	6.00	5,050.00
16-Feb-23	-	2.50	1.50	4,350.00
04-Mar-23	-	0.50	-	4,400.00
21-Mar-23	-	1.00	-	3,500.00
04-Apr-23	-	0.50	-	-
19-Apr-23	-	-	-	6,400.00
02-May-23	-	-	-	4,100.00
16-May-23	-	-	-	-
15-Jul-23	-	-	-	1,600.00
01-Aug-23	-	1.00	-	4,250.00
15-Aug-23	-	5.50	2.00	7,100.00
02-Sep-23	-	6.00	4.00	6,700.00
16-Sep-23	-	5.50	3.50	10,000.00
30-Sep-23	-	5.00	2.50	12,100.00
18-Oct-23	-	4.00	1.00	9,050.00
01-Nov-23	-	2.00	-	9,800.00
16-Nov-23	-	1.00	-	6,300.00

Source: [www.cbic.gov.in](http://www.cbic.gov.in)



## Share of taxes in retail selling price of petroleum products

Table 8.7 : Share of taxes in retail selling price of PDS Kerosene as on 01.11.2023 at Mumbai

Particulars	₹/litre	Share in RSP (%)
Price before taxes and dealers' commission	67.41	91.6%
Customs duty	-	
GST (Including GST on dealers' commission)	3.50	
<b>Total taxes</b>	<b>3.50</b>	<b>4.8%</b>
Dealers' commission	2.66	3.6%
<b>Retail selling price</b>	<b>73.57</b>	<b>100.0%</b>

Table 8.8 : Share of taxes in retail selling price of Domestic LPG as on 01.11.2023 at Delhi

Particulars	₹/14.2 kg cylinder	Share in RSP (%)
Price before taxes and distributors' commission	786.91	87.1%
Customs duty	-	
GST (including GST on distributors' commission)	43.01	
<b>Total taxes</b>	<b>43.01</b>	<b>4.8%</b>
Distributors' commission	73.08	8.1%
<b>Retail selling price</b>	<b>903.00</b>	<b>100.0%</b>

Table 8.9 : Weightage of crude oil, natural gas and petroleum products in Wholesale Price Index (WPI)

Product	Weight in %
Crude Petroleum	1.95
Natural Gas	0.46
High Speed Diesel (HSD)	3.10
Petrol	1.60
Naphtha	0.87
Furnace Oil (FO)	0.67
LPG	0.64
Aviation Turbine Fuel (ATF)	0.32
Lube Oils	0.29
Bitumen	0.23
Kerosene	0.19
Petroleum Coke	0.05
<b>Total</b>	<b>10.37</b>

Source: Website of Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade



**Dealers' / Distributors' commission on petroleum products**
**Table 8.10 : Dealers' commission on petrol & diesel**

(₹/KL)

Effective date	Petrol	Diesel
As on 1-Apr-04	707.00	425.00
21-Jun-05	778.00	467.00
01-Aug-05	848.00	509.00
01-Mar-07	894.00	529.00
16-May-07	1024.00	600.00
23-May-08	1052.00	631.00
27-Oct-09	1125.00	673.00
07-Sep-10	1218.00	757.00
01-Jul-11	1499.00	912.00
27-Oct-12	1794.00	1089.00
21-Dec-13	□ 1390.15/KL + 0.883% of product billable price	1186.00
23-Oct-14	□ 1499.37/KL + 0.887% of product billable price	□ 1116.09/KL + 0.290% of product billable price
01-Aug-15	□ 1749.86/KL + 0.883% of product billable price	□ 1301.70/KL + 0.286% of product billable price
16-Nov-15	□ 1750.08/KL + 0.883% of product billable price	□ 1301.88/KL + 0.286% of product billable price
01-Jun-16	□ 1750.29/KL + 0.883% of product billable price	□ 1302.06/KL + 0.286% of product billable price
05-Oct-16	□ 1868.14/KL + 0.875% of product billable price	□ 1389.35/KL + 0.280% of product billable price
16-Nov-16	□ 2006.33/KL + 0.875% of product billable price	□ 1491.72/KL + 0.280% of product billable price
01-Apr-17	□ 2020.38/KL + 0.859% of product billable price	□ 1502.13/KL + 0.267% of product billable price
01-Jul-17	□ 2025.97/KL + 0.859% of product billable price	□ 1506.81/KL + 0.267% of product billable price
01-Aug-17	□ 2674.74/KL + 0.859% of product billable price	□ 2031.38/KL + 0.257% of product billable price
19-Feb-19	□ 2637.80/KL + 0.859% of product billable price	□ 2000.60/KL + 0.257% of product billable price

Note: In addition to above, effective 1st Aug 2017, slab based incentive is also given to eligible dealers through credit notes.

**Table 8.11 : Wholesale dealers' commission on PDS kerosene**

(₹/KL)

Effective date	With form XV	Other than form XV
As on 01-Apr-04	204.00	161.00
01-Mar-07	243.00	200.00
24-May-08	255.00	212.00
07-Jul-09	263.00	220.00
07-Sep-10	275.00	232.00
28-Dec-12	438.24	377.73
21-Oct-14	536.09	475.58
05-Feb-16	714.18	649.16
28-Oct-16	787.82	723.87
05-Sep-17	1008.83	928.10
04-Oct-18	1016.37	1005.95
22-Feb-19	1341.88	1230.98

Table 8.12: Distributors' commission on domestic LPG

(₹/cylinder)

Effective date	14.2 KG cyl.	Additional commission for sale at market determined price (₹/14.2 KG cyl.)	5 KG cyl.
As on 01-April-04	16.71	NA	8.60
01-Mar-07	19.05	NA	9.81
04-Jun-08	20.54	NA	10.58
30-Jun-09	21.94	NA	11.30
01-Jul-11	25.83	NA	13.30
07-Oct-12	37.25	0.75	18.63
11-Dec-13	40.71	0.75	20.36
23-Oct-14	44.06	0.82	22.03
09-Dec-15	45.83	0.26	22.67
01-Jan-16	45.83	0.33	22.67
01-Feb-16	45.83	0.22	22.67
01-Mar-16	45.83	0.13	22.67
01-May-16	45.83	0.15	22.67
01-Jun-16	45.83	0.18	22.67
01-Jul-16	45.83	0.16	22.67
01-Aug-16	45.83	0.09	22.67
01-Sep-16	45.83	0.06	22.67
01-Oct-16	45.83	0.09	22.67
28-Oct-16	47.48	0.09	23.74
01-Nov-16	47.48	0.14	23.74
01-Dec-16	47.48	0.21	23.74
01-Feb-17	47.48	0.30	23.74
01-Mar-17	47.48	0.43	23.74
01-Apr-17	47.48	0.40	23.74
01-May-17	47.48	0.27	23.74
01-Jun-17	47.48	0.15	23.74
01-Jul-17	47.48	0.13	23.74
01-Aug-17	47.48	0.06	23.74
01-Sep-17	47.48	0.16	23.74
30-Sep-17	48.89	0.16	24.20
01-Oct-17	48.89	0.23	24.20
01-Nov-17	48.89	0.36	24.20
01-Jan-18	48.89	0.35	24.20
01-Feb-18	48.89	0.34	24.20
01-Mar-18	48.89	0.28	24.20
01-Apr-18	48.89	0.23	24.20
01-Jun-18	48.89	0.29	24.20
01-Jul-18	48.89	0.36	24.20
01-Aug-18	48.89	0.42	24.20
01-Sep-18	48.89	0.46	24.20
01-Oct-18	48.89	0.54	24.20

**Table 8.12 : Continued**

(₹/cylinder)

Effective date	14.2 KG cyl.	Additional commission for sale at market determined price (₹/14.2 KG cyl.)	5 KG cyl.
01-Nov-18	48.89	0.63	24.20
07-Nov-18	50.58	0.63	25.29
01-Dec-18	50.58	0.45	25.29
01-Jan-19	50.58	0.28	25.29
01-Feb-19	50.58	0.24	25.29
01-Mar-19	50.58	0.30	25.29
01-Apr-19	50.58	0.31	25.29
01-Jun-19	50.58	0.35	25.29
01-Jul-19	50.58	0.21	25.29
01-Aug-19	56.20	-	28.10
01-Sep-19	59.02	-	29.51
01-Oct-19	61.84	-	30.92
19-May-22	64.84	-	32.42
04-Oct-23	73.08	-	36.54

Source: MoP&amp;NG circulars &amp; OMCs

**Table 8.13 : Retail selling price of major petroleum products in India & neighbouring countries**

Country	Petrol (₹/ltr)	Diesel (₹/ltr)	Kerosene (₹/ltr)	Domestic LPG (₹/14.2 kg cyl.)
India	96.72 <sup>^</sup>	89.62 <sup>^</sup>	73.57 <sup>#</sup>	903.00 <sup>**</sup>
Pakistan	83.88	90.54	63.02	1064.49
Bangladesh	95.55	83.32	83.32	513.19
Sri Lanka	90.98	90.98	63.64	1007.41
Nepal (Kathmandu)	108.99	103.92	103.92	1200.76

<sup>^</sup> Petrol and Diesel at Delhi as on 01.11.2023 as per IOCL

<sup>#</sup> at Mumbai as on 01.11.2023 for PDS Kerosene

<sup>\*\*</sup> Non subsidised Domestic LPG at Delhi as on 01.11.2023

**Note - Prices for neighboring countries as available on their respective website as on 01.11.2023.**

 Sources: Websites: Pakistan- Pakistan State Oil ([www.psopk.com](http://www.psopk.com)) and Oil and Gas Regulatory Authority ([www.ogra.org.pk](http://www.ogra.org.pk)); Bangladesh- Bangladesh Petroleum Corporation ([www.bpc.gov.bd](http://www.bpc.gov.bd)); Nepal- Nepal Oil Corporation ([www.nepaloil.com.np](http://www.nepaloil.com.np)); Sri Lanka- Petrol, Diesel & Kerosene- Ceylon Petroleum Corporation ([www.ceypetco.gov.lk](http://www.ceypetco.gov.lk)); LPG- Lirto Gas Lanka ([www.litrogas.com](http://www.litrogas.com)) ;

 Exchange rate - [www.oanda.com](http://www.oanda.com)


Table 8.14 : Retail Selling Price of petroleum products at State capitals / UTs as on 01.11.2023

State/Union Territory	City	Petrol	Diesel	Domestic LPG Non subsidized
		(₹/litre)		(₹/14.2 KG Cylinder)
Andaman & Nicobar Islands	Port Blair	84.10	79.74	979.00
Andhra Pradesh	Amaravati	111.87	99.61	935.50
Arunachal Pradesh	Itanagar	92.78	82.20	968.50
Assam	Guwahati	98.03	90.33	952.00
Bihar	Patna	107.24	94.04	1001.00
Chandigarh	Chandigarh	96.20	84.26	912.50
Chhattisgarh	Raipur	102.45	95.44	974.00
Dadra and Nagar Haveli and Daman & Diu	Daman	94.31	89.86	912.50
Delhi	New Delhi	96.72	89.62	903.00
Goa	Panaji	97.22	89.79	917.00
Gujarat	Gandhinagar	96.63	92.38	928.50
Haryana	Ambala	97.48	90.31	920.50
Himachal Pradesh	Shimla	97.22	89.10	947.50
Jammu & Kashmir	Srinagar	101.74	86.83	1019.00
Jharkhand	Ranchi	99.84	94.65	960.50
Karnataka	Bengaluru	101.94	87.89	905.50
Kerala	Thiruvananthapuram	109.73	98.53	912.00
Ladakh	Leh	104.48	89.37	1140.00
Madhya Pradesh	Bhopal	108.65	93.90	908.50
Maharashtra	Mumbai	106.31	94.27	902.50
Manipur	Imphal	101.24	87.16	1054.50
Meghalaya	Shillong	97.99	86.72	970.00
Mizoram	Aizawl	95.84	82.25	1055.00
Nagaland	Kohima	99.50	87.59	922.00
Odisha	Bhubaneswar	103.19	94.76	929.00
Puducherry	Puducherry	96.16	86.33	915.00
Punjab	Jalandhar	98.01	88.34	932.50
Rajasthan	Jaipur	108.48	93.72	906.50
Sikkim	Gangtok	102.70	89.80	1055.50
Tamil Nadu	Chennai	102.63	94.24	918.50
Telangana	Hyderabad	109.66	97.82	955.00
Tripura	Agartala	99.49	88.44	1063.50
Uttar Pradesh	Lucknow	96.57	89.76	940.50
Uttarakhand	Dehradun	95.28	90.29	922.00
West Bengal	Kolkata	106.03	92.76	929.00

Source: IOCL

Highest

Lowest

Table 8.15 : Retail selling price of PDS kerosene at major Metro cities as on 01.11.2023

State	Metro City	(₹/litre)
Maharashtra	Mumbai	73.57
Tamil Nadu	Chennai	15.00
West Bengal	Kolkata	77.07

Source: IOCL

Note: The allocation of PDS kerosene in Delhi is nil presently.

**Table 8.16 : Customs ,excise duty and GST rates on petroleum products as on 01.11.2023**
**8.16A-Customs duty and Excise duty (Petroleum products on which GST is not levied)**

Particulars	Customs duty			Central excise duty			
	Basic customs duty	Additional customs duty (CVD)	Additional customs duty	Basic excise duty	Special additional excise duty	Additional excise duty (Road and Infrastructure Cess)	Additional excise duty (Agriculture Infrastructure & Development Cess)
Crude oil	Rs 1/MT + Rs. 50/MT as NCCD	Rs.1/MT	-	Rs. 1/MT+ Cess @ 20% +Rs.50/ MT as NCCD	Rs. 9,800/ MT	-	-
Petrol	2.50%	Rs.1.40/ltr. + Rs.11.00/ ltr SAD+ Rs.2.50/ ltr AIDC	Rs.5.00/ltr.	Rs.1.40/ltr	Rs.11.00/ltr	Rs.5.00/ltr.	Rs.2.50/ltr
Petrol (branded)	2.50%	Rs.2.60/ltr. + Rs.11.00/ ltr SAD+ Rs.2.50/ ltr AIDC	Rs.5.00/ltr.	Rs.2.60/ltr	Rs.11.00/ltr	Rs.5.00/ltr.	Rs.2.50/ltr
High speed diesel	2.50%	Rs.1.80/ltr. + Rs.8.00/ ltr SAD+ Rs.4.00/ ltr AIDC	Rs.2.00/ltr.	Rs.1.80/ltr	Rs.8.00/ltr	Rs.2.00/ltr.	Rs.4.00/ltr
High speed diesel (branded)	2.50%	Rs.4.20/ltr. + Rs.8.00/ ltr SAD+ Rs.4.00/ ltr AIDC	Rs.2.00/ltr.	Rs.4.20/Ltr	Rs.8.00/ltr	Rs.2.00/ltr.	Rs.4.00/ltr
Aviation Turbine Fuel (ATF) (note-2)	5.00%	11%	-	11%	-	-	-
Liquefied Natural Gas (LNG)	2.50%	Nil	-	Nil	-	-	-
Natural gas [gaseous state]	5.00%	Nil	-	Nil	-	-	-
Natural gas [compressed]	5.00%	14.00%	-	14.00%	-	-	-

**8.16B-Customs duty and GST rates (Petroleum products on which GST is levied)**

Particulars		Customs		GST
		Basic Customs Duty	CVD (in lieu of IGST)	
LPG	Domestic (Note-3)	Nil	5.00%	5.00%
	Non - Domestic	5.00%	18.00%	18.00%
Kerosene	PDS	5.00%	5.00%	5.00%
	Non PDS	5.00%	18.00%	18.00%
Naphtha	Fertilizer	Nil	18.00%	18.00%
	Non- Fertilizer	2.50%	18.00%	18.00%
Butane / Propane	Domestic (Note-5)	Nil	5.00%	5.00%
	Non - Domestic	2.50%	18.00%	18.00%
Bitumen & Asphalt		5.00%	18.00%	18.00%
Furnace Oil	Fertilizer	Nil	18.00%	18.00%
	Non- Fertilizer	2.50%	18.00%	18.00%
Light Diesel Oil		5.00%	18.00%	18.00%
Low Sulphur Heavy Stock/ HPS & other Residue	Fertilizer	Nil	18.00%	18.00%
	Non- Fertilizer	5.00%	18.00%	18.00%
Lube oil/greases		5.00%	18.00%	18.00%
Petroleum Coke		10.00%	18.00%	18.00%
Petroleum Jelly		5.00%	18.00%	18.00%
Transformer Oil		5.00%	18.00%	18.00%
Waxes all types		5.00%	18.00%	18.00%

Source: [www.cbic.gov.in](http://www.cbic.gov.in)

Note :

1. . In addition to the above , 10% Social Welfare Surcharge is also applicable on the total duties of Customs. However, where CVD is payable in lieu of IGST, social welfare surcharge is not applicable on the amount of CVD.

2. In case of ATF, Basic Excise Duty /Additional Customs Duty (CVD) is 2% in place of 11%, for supply to scheduled commuter airlines (SCA) from the regional connectivity scheme (RCS) airports.

3.Basic Customs duty is Nil for import of domestic LPG sold to household consumers (including non domestic exempted category) by PSU OMCs. Basic Customs duty rate is 5% for other importers of domestic LPG.

4. An additional Basic Excise duty @Rs 2/ltr has been levied on unblended petrol ( not blended with ethanol or methanol) intended for retail sale w.e.f. 01.11.2022.

5. Basic Customs duty is Nil for import of Butane / Propane intended to be used as domestic LPG sold to household consumers (including NDEC) by PSU OMCs.

**Table 8.17 : Actual rate of sales tax/ VAT/GST and other taxes levied by State/UT Governments on major petroleum products as on 01.11.2023**

Sl. no.	State/Union Territory	Petrol	Diesel	PDS kerosene	Domestic LPG
		Sales Tax /VAT		GST	
1	Andaman & Nicobar Islands	1%	1%		
2	Andhra Pradesh	31% VAT + Rs.4/litre VAT+Rs.1/litre Road Development Cess and Vat thereon	22.25% VAT + Rs.4/litre VAT+Rs.1/litre Road Development Cess and Vat thereon		
3	Arunachal Pradesh	14.50%	7.00%		
4	Assam	21.95% or Rs.16.80 per litre whichever is higher	*20.88% OR Rs. 13.60 per litre whichever is higher Rebate of Rs. 1.66 per litre subject to minimum tax of Rs. 13.60 per litre*		
5	Bihar	23.58% or Rs 16.65/Litre whichever is higher (30% Surcharge on VAT as irrecoverable tax)	16.37% or Rs 12.33/Litre whichever is higher (30% Surcharge on VAT as irrecoverable tax)		
6	Chandigarh	Rs.10/KL cess +15.24% or Rs 12.42 per liter which ever is higher	Rs.10/KL cess + 6.66% or Rs5.07 per liter which ever is higher		
7	Chhattisgarh	24% VAT + Rs.2/litre VAT	23% VAT + Rs.1/litre VAT		
8	Dadra & Nagar Haveli and Daman & Diu	12.75% VAT	13.50% VAT		
9	Delhi	19.40% VAT	Rs.250/KL air ambience charges + 16.75% VAT		
10	Goa	20% VAT + 0.5% Green cess	17% VAT + 0.5% Green cess		
11	Gujarat	13.7% VAT+ 4% Cess on Town Rate & VAT	14.9% VAT + 4 % Cess on Town Rate & VAT		
12	Haryana	18.20% or Rs.14.50/litre whichever is higher as VAT+5% additional tax on VAT	16% VAT or Rs.11.86/litre whichever is higher as VAT+5% additional tax on VAT		
13	Himachal Pradesh	17.50% or Rs 13.50/Litre- whichever is higher	13.90% or Rs 10.40/Litre- whichever is higher		
14	Jammu & Kashmir	24% MST+ Rs.2/Litre employment cess, Reduction of Rs.4.50/Litre	16% MST+ Rs.1.00/Litre employment cess, Reduction of Rs.6.50/Litre		
15	Jharkhand	22% on the sale price or Rs. 17.00 per litre , which ever is higher + Cess of Rs 1.00 per Ltr	22% on the sale price or Rs. 12.50 per litre , which ever is higher + Cess of Rs 1.00 per Ltr		
16	Karnataka	25.92% sales tax	14.34% sales tax		
17	Kerala	30.08% sales tax+ Rs.1/litre additional sales tax + 1% cess , Social security cess Rs.2 per litre	22.76% sales tax+ Rs.1/litre additional sales tax + 1% cess , Social security cess Rs.2 per litre		
18	Ladakh	15% MST+ Rs.5/Litre employment cess, Reduction of Rs.2.5/Litre	6% MST+ Rs.1/Litre employment cess , Reduction of Rs.0.50/Litre		
19	Lakshadweep	10% VAT	10% VAT	5%	5%
20	Madhya Pradesh	29 % VAT + Rs.2.5/litre VAT+1%Cess	19% VAT+ Rs.1.50/litre VAT+1% Cess		
21	Maharashtra – Mumbai, Thane , Navi Mumbai, & Aurangabad	26% VAT+ Rs.5.12/Litre additional tax	24% VAT		
22	Maharashtra (Rest of State)	25% VAT+ Rs.5.12/Litre additional tax	21% VAT		
23	Manipur	25% VAT	13.50% VAT		
24	Meghalaya	13.50% or Rs13.50/Litre- whichever is higher (Rs.0.10/Litre pollution surcharge)	5% or Rs 7.00/Litre- whichever is higher (Rs.0.10/Litre pollution surcharge)		
25	Mizoram	16.36% VAT	5.23% VAT		
26	Nagaland	25% VAT or Rs. 16.04/litre whichever is higher +5% surcharge + Rs.2.00/Litre as road maintenance cess minus rebate of Rs.5.50/Litre	16.50% VAT or Rs. 10.51/litre whichever is higher +5% surcharge + Rs.2.00/Litre as road maintenance cess minus rebate of Rs.5.10/Litre		
27	Odisha	28% VAT	24% VAT		
28	Puducherry	14.55% VAT	8.65% VAT		
29	Punjab	Rs.2050/KL (cess)+ Rs.0.10 per Litre (Urban Transport Fund) + 0.25 per Litre (Special Infrastructure Development Fee)+15.74% VAT plus 10% additional tax or Rs.14.32/Litre whichever is higher	Rs.1050/KL (cess) + Rs.0.10 per Litre (Urban Transport Fund) +0.25 per Litre (Special Infrastructure Development Fee) + 12.00% VAT plus 10% additional tax and or Rs.10.02/Litre whichever is higher		
30	Rajasthan	31.04% VAT+Rs 1500/KL road development cess	19.30% VAT+ Rs.1750/KL road development cess		
31	Sikkim	20% VAT+ Rs.3000/KL cess	10% VAT + Rs.2500/KL cess		
32	Tamil Nadu	13% + Rs.11.52 per litre	11% + Rs.9.62 per litre		
33	Telangana	35.20% VAT	27% VAT		
34	Tripura	17.50% VAT+ 3% Tripura Road Development Cess	10.00% VAT+ 3% Tripura Road Development Cess		
35	Uttar Pradesh	19.36% or Rs 14.85/Litre whichever is higher	17.08% or Rs 10.41/Litre whichever is higher		
36	Uttarakhand	16.97% or Rs 13.14 Per Ltr whichever is greater	17.15% or Rs Rs 10.41 Per Ltr whichever is greater		
37	West Bengal	25% or Rs.13.12/litre whichever is higher as sales tax+ Rs.1000/KL cess – Rs 1000/KL sales tax rebate (20% Additional tax on VAT as irrecoverable tax)	17% or Rs.7.70/litre whichever is higher as sales tax + Rs 1000/KL cess – Rs 1000/KL sales tax rebate (20% Additional tax on VAT as irrecoverable tax)		

Source: IOCL

Note:

For Petrol & Diesel, VAT/Sales Tax at applicable rates is also levied on Dealer's commission in Delhi, Gujarat, Dadra & Nagar Haveli and Daman & Diu, Punjab, Haryana, Madhya Pradesh, Rajasthan, Chandigarh, Puducherry, Andaman & Nikobar, Meghalaya & Lakshadweep.

**Table 8.18 : Contribution of petroleum sector to exchequer**

(₹ Crore)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	H1 2022-23	H1 2023-24 (P)
<b>1. Contribution to Central exchequer</b>							
<b>A. Tax/ duties on crude oil &amp; petroleum products</b>							
Cess on crude oil	17741	14789	10676	19214	21445	10213	8048
Royalty on crude oil / natural gas	6062	5602	3590	5639	9822	4886	2637
Customs duty	16035	22927	13514	11423	14985	6426	6125
NCCD on Crude Oil	1180	1130	1016	1121	1192	584	573
Excise duty	214369	223057	372970	363305	287575	134025	124003
Service tax	340	17	0	0	0	0	0
IGST	16479	13099	11594	19726	22236	11518	9464
CGST	7437	6831	6158	10843	13012	6801	6355
Others	204	88	365	338	59	19	28
<b>Sub total (A)</b>	<b>279847</b>	<b>287540</b>	<b>419884</b>	<b>431609</b>	<b>370326</b>	<b>174471</b>	<b>157233</b>
<b>B. Dividend to Government/ income tax etc.</b>							
Corporate/ income tax	38561	23134	21909	29219	33292	11932	21752
Dividend income to Central Government	15525	12270	10393	22612	15673	5069	3379
Dividend distribution tax	6415	5462	0	0	0	0	0
Profit petroleum on exploration of oil/ gas*	7694	5909	2883	8862	8776	5584	2849
<b>Sub total (B)</b>	<b>68194</b>	<b>46775</b>	<b>35185</b>	<b>60694</b>	<b>57741</b>	<b>22584</b>	<b>27979</b>
<b>Total contribution to Central exchequer (A+B)</b>	<b>348041</b>	<b>334315</b>	<b>455069</b>	<b>492303</b>	<b>428067</b>	<b>197055</b>	<b>185212</b>
<b>2. Contribution to State exchequer</b>							
<b>C. Tax/ duties on crude oil &amp; petroleum products</b>							
Royalty on crude oil / natural gas	13371	11882	7179	13526	17914	10512	7865
Sales tax/ VAT	201265	200493	202937	256248	288086	142092	140890
SGST/UTGST	7961	7345	6121	11017	13188	6892	6393
Octroi/ duties (incl. electricity duty)	685	716	706	827	830	409	353
Entry tax / others	4114	405	329	354	293	206	148
<b>Sub total (C)</b>	<b>227396</b>	<b>220841</b>	<b>217271</b>	<b>281972</b>	<b>320311</b>	<b>160112</b>	<b>155649</b>
<b>D. Dividend to Government/ direct tax etc.</b>							
Dividend income to State Government	195	215	379	151	340	130	74
<b>Sub total (D)</b>	<b>195</b>	<b>215</b>	<b>379</b>	<b>151</b>	<b>340</b>	<b>130</b>	<b>74</b>
<b>Total contribution to State exchequer (C+D)</b>	<b>227591</b>	<b>221056</b>	<b>217650</b>	<b>282122</b>	<b>320651</b>	<b>160242</b>	<b>155723</b>
<b>Total contribution of petroleum sector to exchequer (1+2)</b>	<b>575632</b>	<b>555370</b>	<b>672719</b>	<b>774425</b>	<b>748718</b>	<b>357296</b>	<b>340935</b>

Source: Based on data provided by 15 oil &amp; gas companies

Note: Totals may not tally due to round off

\* as provided by MOP&amp;NG.

(P)- Provisional



**Table 8.19 : State/UT wise collection of sales tax/ VAT by petroleum sector**

(₹ Crore)

Sl. no.	State/Union territory	Sales tax/VAT						
		2018-19	2019-20	2020-21	2021-22	2022-23	H1 2022-23	H1 2023-24 (P)
1	Andaman & Nicobar Islands	92	94	74	80	63	31	29
2	Andhra Pradesh	10784	10168	11014	14724	16429	8694	8462
3	Arunachal Pradesh	49	26	104	136	158	74	87
4	Assam	3879	3641	3747	3901	5073	2428	2707
5	Bihar	6584	6238	5854	6867	9848	4654	4549
6	Chandigarh	62	60	60	87	99	52	47
7	Chhattisgarh	3986	3877	4107	5178	6164	2849	2865
8	Dadra and Nagar Haveli and Daman & Diu	2	2	1	2	1	0	0
9	Delhi	4379	3833	2653	3659	4398	2194	2155
10	Goa	694	754	682	994	1278	625	598
11	Gujarat	16229	15337	15141	20697	24631	12046	11437
12	Haryana	8286	7648	7923	10067	10030	5213	5033
13	Himachal Pradesh	364	440	882	1313	1222	606	760
14	Jammu & Kashmir	1449	1459	1444	1859	1543	809	822
15	Jharkhand	2796	3296	3619	4392	5533	2780	2784
16	Karnataka	14417	15381	15476	18310	18459	9140	9880
17	Kerala	7995	8074	6924	9265	11827	5137	5219
18	Ladakh		14	49	81	68	39	42
19	Lakshadweep	0	0	0	0	3	0	10
20	Madhya Pradesh	9485	10720	11908	14157	15573	7309	7026
21	Maharashtra	27191	26791	25430	34002	37619	20335	18487
22	Manipur	181	192	265	319	331	167	130
23	Meghalaya	0	0	0	0	0	0	0
24	Mizoram	88	91	84	120	87	42	49
25	Nagaland	97	116	148	180	168	84	85
26	Odisha	5660	5495	6224	7656	9328	4067	4143
27	Puducherry	8	5	10	11	9	5	1
28	Punjab	6576	5548	6291	7890	6900	3506	3942
29	Rajasthan	12714	13319	15119	17401	18574	9069	9466
30	Sikkim	134	129	111	155	179	89	96
31	Tamil Nadu	18143	18175	17063	20586	24309	12182	11774
32	Telangana	10037	10045	8691	13171	14929	7634	7688
33	Tripura	277	384	445	474	624	254	188
34	Uttar Pradesh	19168	20112	21956	26333	28170	13275	13878
35	Uttarakhand	1595	1495	1524	1847	2073	1096	1050
36	West Bengal	7866	7534	7916	10335	12386	5606	5406
	<b>TOTAL</b>	<b>201265</b>	<b>200493</b>	<b>202937</b>	<b>256248</b>	<b>288086</b>	<b>142092</b>	<b>140890</b>

Source: Based on data provided by 15 oil & gas companies

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are shown as zero.

(P)- Provisional

Totals may not tally due to round off

**Table 8.20 : State/UT wise collection of SGST/UTGST by petroleum sector**

(₹ Crore)

Sl. no.	State/Union territory/Others	Sales tax/VAT						
		2018-19	2019-20	2020-21	2021-22	2022-23	H1 2022-23	H1 2023-24 (P)
1	Andaman & Nicobar Islands	0	0	0	1	1	0	0
2	Andhra Pradesh	257	156	112	204	290	143	157
3	Arunachal Pradesh	6	0	0	0	1	0	0
4	Assam	559	475	332	414	445	222	178
5	Bihar	159	145	122	147	210	94	107
6	Chandigarh	1	1	1	1	2	0	1
7	Chhattisgarh	18	9	14	26	30	11	26
8 & 9	Dadra and Nagar Haveli and Daman & Diu	12	20	20	15	41	34	8
10	Delhi	52	51	37	54	56	26	46
11	Goa	3	9	11	15	10	5	5
12	Gujarat	2060	1801	1566	3180	3922	2039	1666
13	Haryana	659	685	529	1064	1119	698	575
14	Himachal Pradesh	3	4	6	8	18	7	5
15	Jammu & Kashmir	20	17	40	35	24	10	14
16	Jharkhand	13	16	12	10	29	7	26
17	Karnataka	356	269	260	461	577	304	202
18	Kerala	146	171	136	255	333	184	164
19	Ladakh		1	1	1	6	5	0
20	Lakshadweep	0	0	0	1	0	0	0
21	Madhya Pradesh	87	98	68	117	174	78	95
22	Maharashtra	1272	1126	932	1822	2102	1030	1111
23	Manipur	1	1	2	2	2	1	1
24	Meghalaya	1	0	0	0	0	0	0
25	Mizoram	1	1	0	0	1	0	0
26	Nagaland	1	1	0	1	1	0	0
27	Odisha	93	192	195	421	579	300	303
28	Puducherry	1	1	1	1	4	2	3
29	Punjab	116	128	43	346	258	96	134
30	Rajasthan	205	176	145	196	260	146	185
31	Sikkim	2	0	0	0	0	0	0
32	Tamil Nadu	642	562	439	640	861	451	406
33	Telangana	19	21	22	45	33	15	36
34	Tripura	20	17	38	17	23	11	12
35	Uttar Pradesh	616	619	603	827	859	501	475
36	Uttarakhand	6	7	8	7	8	4	4
37	West Bengal	545	553	418	674	897	462	405
<b>Others</b>								
1	Other territory (Offshore areas of India beyond 12 Nautical Miles)	11	11	7	9	15	4	41
	<b>TOTAL</b>	<b>7961</b>	<b>7345</b>	<b>6121</b>	<b>11017</b>	<b>13188</b>	<b>6892</b>	<b>6393</b>

Source: Based on data provided by 15 oil &amp; gas companies

Note: As the amounts have been rounded off to the nearest crore, hence some amounts are shown as zero.

(P)- Provisional

Totals may not tally due to round off

Table 8.21: Profit After Tax (PAT) of oil companies

(₹ Crore)

Companies	2018-19	2019-20	2020-21	2021-22	2022-23	H1 2022-23	H1 2023-24
<b>PSU upstream/midstream companies</b>							
ONGC	26765	13464	11246	40306	38829	28032	20231
OIL	2590	2584	1742	3887	6810	3276	1939
GAIL	6026	6621	4890	10364	5302	4452	3817
<b>Total</b>	<b>35380</b>	<b>22668</b>	<b>17878</b>	<b>54557</b>	<b>50941</b>	<b>35760</b>	<b>25987</b>
<b>PSU downstream Oil Marketing Companies (OMCs)</b>							
IOCL	16894	1313	21836	24184	8242	-2265	26718
BPCL*	7132	2683	19042	11363	1870	-6567	19052
HPCL	6029	2637	10664	6383	-8974	-12369	11322
<b>Total</b>	<b>30055</b>	<b>6634</b>	<b>51542</b>	<b>41930</b>	<b>1138</b>	<b>-21201</b>	<b>57092</b>
<b>PSU stand alone refineries</b>							
MRPL	332	-2740	-240	2955	2638	918	2072
CPCL	-213	-2078	238	1342	3534	2387	1739
NRL	1968	1381	3036	3562	3703	2134	658
<b>Total</b>	<b>2087</b>	<b>-3437</b>	<b>3033</b>	<b>7859</b>	<b>9875</b>	<b>5439</b>	<b>4469</b>
<b>PSU consultancy company</b>							
EIL	370	430	260	344	342	136	216
<b>Total</b>	<b>370</b>	<b>430</b>	<b>260</b>	<b>344</b>	<b>342</b>	<b>136</b>	<b>216</b>
<b>Private sector companies</b>							
RIL**	35163	30903	31944	39084	44190	22011	20835
NEL	344	2518	467	1030	9592	5357	*NA
<b>Total</b>	<b>35507</b>	<b>33421</b>	<b>32411</b>	<b>40114</b>	<b>53782</b>	<b>27368</b>	<b>20835</b>

Source: Published results/ information provided by oil companies.

Note: Financials are on standalone basis

\* BPCL figures for 2022-23 includes BORO &amp; BGRL also after its merger with BPCL. BPCL Figures for 2021-22 have been reinstated here after merger.

\*\* RIL Figures for 2022-23 have been reinstated here after demerger.

\*NA-Not Available



**Table 8.22 : Financial details of major oil companies**

(₹ in Crore)

2022-23										
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL	RIL
(₹ Crore)										
Sales turnover	919649	532105	464684	154754	22369	143976	124686	90801	29785	578088
Profit Before Interest and Tax (PBIT)	16628	5433	(9783)	53095	9581	6896	5524	5139	4966	66751
Interest	6930	3216	2132	2700	724	312	1285	330	12	12633
Tax	1456	347	(2941)	11566	2047	1282	1600	1275	1250	11116
Profit After Tax (PAT)	8242	1870	(8974)	38829	6810	5302	2638	3534	3703	44190
Net worth	134758	51996	27713	257846	34365	55654	9835	6281	11427	479078
Borrowings (loan fund)	132495	35855	64517	7219	11161	14309	16707	4235	3262	215823
<b>Ratios</b>										
PAT as % of turnover (net sales)	0.90%	0.35%	-1.93%	25.09%	30.45%	3.68%	2.12%	3.89%	12.43%	7.64%
Debt (loan fund) to equity ratio	0.98	0.69	2.33	0.03	0.32	0.26	1.70	0.67	0.29	0.45
Earnings Per Share (EPS)	5.98	8.78	(63.26)	30.86	62.80	8.04	15.05	237.31	25.17	63.56

\* BPCL Figures for 2021-22 has been reinstated after merger of BORL &amp; BGRL with BPCL

\* RIL Figures for 2022-23 have been reinstated here after demerger.

(₹ in Crore)

H1 2022-23										
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL	RIL
(₹ Crore)										
Sales turnover	467164	266059	234885	80310	11355	75976	64357	50278	16307	304026
Profit Before Interest and Tax (PBIT)	392	(6602)	(15548)	38005	4631	5887	2195	3372	2889	34996
Interest	3166	1426	928	1302	416	116	618	138	6	5532
Tax	(509)	(1460)	(4106)	8671	940	1318	659	848	749	7453
Profit After Tax (PAT)	(2265)	(6567)	(12369)	28032	3276	4452	918	2387	2134	22011
Net worth	121168	43755	24135	258056	31643	56761	8116	5147	736	481452
Borrowings (loan fund)	140322	48237	68546	9822	11587	11141	18212	7486	1794	211963
<b>Ratios</b>										
PAT as % of turnover (net sales)	-0.48%	-2.47%	-5.27%	34.90%	28.85%	5.86%	1.43%	4.75%	13.09%	7.24%
Debt (loan fund) to equity ratio	1.16	1.10	2.84	0.04	0.37	0.20	2.24	1.45	2.44	0.44
Earnings Per Share (EPS)	(1.64)	(30.84)	(87.20)	22.28	30.21	6.73	5.24	160.27	29.01	31.00

(₹ in Crore)

H1 2023-24										
Particulars	IOCL	BPCL	HPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL	RIL
Sales turnover	421531	244155	220888	68622	10328	63866	47652	37959	9794	279567
Profit Before Interest and Tax (PBIT)	38716	26772	16241	28856	2677	5366	3743	2458	910	34079
Interest	3472	1447	1168	2024	389	348	578	122	19	6835
Tax	8526	6273	3751	6601	349	1202	1092	596	233	6409
Profit After Tax (PAT)	26718	19052	11322	20231	1939	3817	2072	1739	658	20835
Net worth	161742	70328	39244	280333	36784	60904	11907	7618	23431	493272
Borrowings (loan fund)	99407	22568	51758	8703	11306	13961	13978	3423	6635	1,89,500
<b>Ratios</b>										
PAT as % of turnover (net sales)	6.34%	7.80%	5.13%	29.48%	18.77%	5.98%	4.35%	4.58%	6.72%	7.45%
Debt (loan fund) to equity ratio	0.61	0.32	1.32	0.03	0.31	0.23	1.17	0.45	0.28	0.38
Earnings Per Share (EPS)	19.40	89.47	79.81	16.08	17.88	5.81	11.82	116.77	4.33	30.79

Source: Published results/ information provided by oil companies.

**Table 8.23 : Total subsidy on Petroleum Products & Natural Gas**

(₹ in Crore)

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23 (P)	H1 2023-24 (P)
PDS kerosene	4672	5950	1833	0	0	0	0
Domestic LPG	0	0	0	0	0	22000	0
<b>Total under-recoveries (A)</b>	<b>4672</b>	<b>5950</b>	<b>1833</b>	<b>0</b>	<b>0</b>	<b>22000</b>	<b>0</b>
Direct Benefit Transfer for LPG (DBTL) subsidy	20880	31447	22635	3559	0	823	702
Project Management Expenditure (PME)*	25	92	91	99	242	32	13
<b>Total DBTL related subsidies (B)</b>	<b>20905</b>	<b>31539</b>	<b>22726</b>	<b>3658</b>	<b>242</b>	<b>855</b>	<b>715</b>
Pradhan Mantri Ujjwala Yojana (PMUY) claims	2496	5636	1403	(34)	1569	6110	3236
Project Management Expenditure (PME) & Information Education and Communication (IEC) expenditure under PMUY*	63	34	43	110	0	0	0
<b>Total PMUY related subsidy (C)</b>	<b>2559</b>	<b>5670</b>	<b>1446</b>	<b>76</b>	<b>1569</b>	<b>6110</b>	<b>3236</b>
<b>Direct Benefit Transfer of Kerosene (DBTK) subsidy (D)</b>	<b>113</b>	<b>98</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>PMGKY (E)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8162</b>	<b>0</b>	<b>0</b>	<b>0</b>
Natural gas subsidy for North East	435	557	574	336	405	1354	601
Scheme for Promotion of Flagging of Merchant Ships in India	0	0	0	0	22	76	44
<b>Other subsidies (F)</b>	<b>435</b>	<b>557</b>	<b>574</b>	<b>336</b>	<b>427</b>	<b>1431</b>	<b>645</b>
<b>Total subsidy/ under-recovery on petroleum products &amp; natural gas (A+B+C+D+E+F)</b>	<b>28684</b>	<b>43814</b>	<b>26621</b>	<b>12231</b>	<b>2237</b>	<b>30396</b>	<b>4596</b>

(P)- Provisional

\*on payment basis.

Note: 1. DBTK subsidy for 2019-20 is till Oct'19. The subsidy excludes cash incentive/assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs.

**Table 8.24 : Quantity and value of Indian crude oil imports**

Year	Quantity (MMT)	Quantity (Million Bbl)	\$ Million	₹ Crore	\$/bbl (approx)
2018-19	226.5	1660.2	1,11,915	7,83,183	67.4
2019-20	227.0	1663.6	1,01,376	7,17,001	60.9
2020-21	196.5	1440.1	62,248	4,59,779	43.2
2021-22	212.4	1556.8	1,20,675	9,01,262	77.5
2022-23	232.7	1705.7	1,57,531	12,60,372	92.4
April-Sept 2022-23	115.5	846.7	89,080	6,98,812	105.2
April-Sept 2023-24 (P)	115.8	849.0	63,663	5,24,480	75.0

(P) Provisional

Conversion factor taken 1 MT = 7.33 bbl





# Chapter-9

# Miscellaneous



**Table 9.1 : Average international Calorific Values of different fuels**

A.	Oil products	M Cals/tonne or K Cal/Kg
	NGL	12135
	Kerosene	10638
	Motor Gasoline	10011135
	Fuel Oil	10440
<b>B.</b>	<b>Natural gas production (average) - India</b>	<b>8000-9480 K cal/SCM</b>
<b>C.</b>	<b>India</b>	<b>M Cals/tonne or K Cal/Kg</b>
	Charcoal	6900
	Hard coal	5000
	Firewood	4750
	Lignite-Brown coal	2310

**Source:** Indian Petroleum & Natural Gas Statistics, MOP&NG

**Conversion factor:** 1 K Cal = 4.19 K Joules

**Conversion factors**  
**Table 9.2 : Weight to volume conversion**

Product	"Weight (MT)"	"Volume (KL)"	BBL	To convert volume at 29.5 °C to volume at 15 °C multiply by
Petrol	1	1.4110	8.88	0.9830
Diesel	1	1.2100	7.61	0.9879
Kerosene	1	1.2850	8.08	0.9864
ATF	1	1.2880	8.10	0.9862
Light Diesel Oil	1	1.1720	7.37	0.9877
Furnace Oil	1	1.0424	6.74	0.9899
Crude Oil	1	1.1700	7.33	

**Note:** Petrol and Diesel are as per BS-IV norms

**Table 9.3 : Volume conversion**

1 US Bbl.	159 Litres
1 US Gallon	3.78 Litres
1 Kilo Litre (KL)	6.29 Bbl.
1 US Bbl.	42 Gallons
1 MBD (million barrels per day)	50 MMTPA

**Table 9.4 : Contents of LPG & Natural Gas**

Natural Gas	Contains 60-95 % Methane
LPG	Contains Propane (40%) & Butane (60%)



**Table 9.5 : Natural Gas Conversions**

1 SCM (Standard Cubic Meter)	= 1 cubic metre @ 1 atmosphere pressure and 15.56 °C	
1 Cubic Metre	= 35.31 Cubic feet	
1 BCM(Billion Cubic Metre) / Year of gas (consumption or production)	= 2.74 MMSCMD	365 days a year
1 TCF (Trillion Cubic Feet) of Gas Reserve	= 3.88 MMSCMD	100% recoverable for 20 years @ 365 days / annum)
1 MMTPA of LNG	= 3.60 MMSCMD	Molecular weight of 18 @ 365 days/annum)
1 MT of LNG	= 1314 SCM	Molecular weight of 18
Gross Calorific Value (GCV)	= 10000 Kcal/ SCM	
Net Calorific Value (NCV)	= 90% of GCV	
1 Million BTU (MMBTU)	= 25.2 SCM	@10000 Kcal/SCM; 1 MMBTU= 252,000 Kcal)
Specific Gravity of Gas	= 0.62	Molecular weight of dry air=28.964 gm/mole)
Density of Gas	= 0.76 Kg/SCM	Molecular weight of gas 18 gm/mol
Gas required for 1 MW of Power generation	= 4541 SCM per day	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); Natural Gas GCV-@10000Kcal/SCM
Power Generation from 1 MMSCMD Gas	= 220 MWH	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); Natural Gas GCV-@10000Kcal/SCM

Source : GAIL (India) Ltd.

**Table 9.6 : Major end use of petroleum products**

Product	Major end use
LPG	Domestic and auto fuel. Also for industrial application where technically essential. Now permitted as auto fuel.
Naphtha	Feedstock/fuel for fertiliser units, feedstock for petrochemical sector and fuel for power plants.
MS	Fuel for passenger cars, taxis, two & three wheelers.
ATF	Fuel for aircrafts.
SKO	Fuel for cooking & lighting.
HSD	Fuel for transport sector (railways/road), agriculture (tractors, pumpsets, threshers, etc.) and captive power generation.
LDO	Fuel for agricultural pumpsets, small industrial units, start up fuel for power generation.
FO/LSHS	Secondary fuel for thermal power plants, fuel/feedstock for fertiliser plants, industrial units.
Bitumen	Surfacing of roads.
Lubes	Lubrication for automotive and industrial applications.
Petroleum coke	Fuel grade petcoke is used as fuel for cement kilns and electric power plants. Calcined petcoke is used to manufacture energy as well as in the aluminium, graphite electrode, steel, titanium dioxide and other carbon consuming industries.
Other products (Benzene, Toluene, MTO, LABFS, CBFS, Paraffin wax etc.)	Feedstock for value added products.



## List of Abbreviations

BBL	Barrel	MTPA	Million Metric Tonne Per Annum
BCM	Billion Cubic Meter	MoA	Ministry of Agriculture
BPCL	Bharat Petroleum Corporation Limited	MoC&I	Ministry of Commerce & Industry
BPRL	Bharat Petro Resources Limited	MoF	Ministry of Finance
CBM	Coal Bed Methane	MoP&NG	Ministry of Petroleum & Natural Gas
CBR	Cauvery Basin Refinery	MoSPI	Ministry of Statistics and Programme Implementation
CGD	City Gas Distribution	MRPL	Mangalore Refinery and Petrochemicals Limited
CNG	Compressed Natural Gas	Mtoe	Million tonnes of oil equivalent,
DBTL	Direct Benefit Transfer for LPG	NELP	New Exploration Licensing Policy
DGCIS	Directorate General of Commercial Intelligence and Statistics	NGLs	Natural Gas Liquids
DGH	Directorate General of Hydrocarbons	NRL	Numaligarh Refinery Limited
DSF	Discovered Small Field	OALP	Open Acreage Licensing Policy
EBP	Ethanol Blending Programme	OECD	Organisation for Economic Co-operation and Development
FBIL	Financial Benchmark India Private Limited	OIL	Oil India Limited
GA	Geographical Areas	OMCs	Oil Marketing Companies
GAIL	Gas Authority of India Limited	ONGC	Oil and Natural Gas Corporation Limited
GREP	Gas Rehabilitation and Expansion Project	OPEC	Organization of the Petroleum Exporting Countries
GRM	Gross Refining Margins	PDS	Public Distribution System
GSPL	Gujarat State Petronet Limited	PMUY	Pradhan Mantri Ujjwala Yojana
GST	Goods & Service Tax	PNG	Piped Natural Gas
HELP	Hydrocarbon Exploration and Licensing Policy	POL	Petroleum, Oil and Lubricants
HPCL	Hindustan Petroleum Corporation Limited	PPAC	Petroleum Planning & Analysis Cell
IEA	International Energy Agency	PSC	Production Sharing Contracts
IOCL	Indian Oil Corporation Limited	PSU	Public Sector Undertaking
KL	Kilo Litre	R/P ratio	Reserves-to-production ratio
LNG	Liquefied Natural Gas	RBI	Reserve Bank of India
LPG	Liquefied Petroleum Gas	SEZ	Special Economic Zone
MBN	MBTU/Bbl/NRGF	TCF	Trillion cubic feet
MBTU	Thousand British Thermal Unit	Toe	Tonnes of oil equivalent
MMBTU	Metric Million British Thermal Unit	WPI	Wholesale Price Index
MMSCMD	Million Standard Cubic Meter Per Day		
MMT	Million Metric Tonne		

Coverage time instant of all data 'as on 01.04.2023' : till 24:00 hr of 31.03.2023



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*For any information please contact*

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