

Snapshot of India's Oil & Gas data

Monthly Ready Reckoner

January 2023



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

Snapshot of India's Oil & Gas data

Monthly Ready Reckoner January, 2023



Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

Petroleum Planning & Analysis Cell (PPAC), an attached office of the Ministry of Petroleum & Natural Gas (MoPNG), Government of India, collects and analyses data on the Oil and Gas sector. It disseminates many reports on the Oil & Gas sector to the various stakeholders. The data is obtained from the Public Sector companies, Government agencies as well as the Private companies. Given the ever-increasing demand for energy and transition of energy demand to renewables and Biofuels, Policy makers and Analysts need to be well informed about the updated trends in the Oil & Gas industry.

The Snapshot of India's Oil & Gas data (Monthly Ready Reckoner), released by PPAC, provides monthly data/information in a single volume for the latest month and historical time series. The Snapshot of India's Oil & Gas data is also published on PPAC's website (www.ppac.gov.in) and is accessible on mobile app-PPACE.

This publication is a concerted effort by all divisions of PPAC. The cooperation of the Oil and Gas industry is acknowledged for their timely inputs.

Table of contents

Table	Description	Page No.
	Highlights for the month	2-3
	ECONOMIC INDICATORS	
1	Selected indicators of the Indian economy	5
2	Crude oil, LNG and petroleum products at a glance; Graph	6-7
	CRUDE OIL, REFINING & PRODUCTION	
3	Indigenous crude oil production	9
4	Domestic oil & gas production vis-à-vis overseas production	9
5	High Sulphur (HS) & Low Sulphur (LS) Crude Oil processing	9
6	Quantity and value of crude oil imports	10
7	Self-sufficiency in petroleum products	10
8	Refineries: Installed capacity and crude oil processing	11-12
9	Crude oil and product pipeline network	12
	Oil and Gas map of India	13
10	Gross Refining Margins (GRM) of companies; Graph	14-15
	CONSUMPTION	
11	Production and consumption of petroleum products; Graph	17-18
12	Kerosene allocation vs upliftment	19
13	Ethanol blending programme	19
14	Industry marketing infrastructure	19
	LIQUEFIED PETROLEUM GAS (LPG)	
15	LPG consumption	21
16	LPG marketing at a glance; Graph	21-22
17	Region-wise data on LPG marketing; Graph	23
	NATURAL GAS	
18	Natural gas at a glance; Graph	25
19	Coal Bed Methane (CBM) gas development in India	26
20	Major natural gas pipeline network	26
21	Existing LNG terminals	26
22	Status of PNG connections & CNG stations across India	27
23	Domestic natural gas price and gas price ceiling	28
24	CNG/PNG prices in selected cities	28
	TAXES & DUTIES ON PETROLEUM PRODUCTS	
25	Information on prices, taxes and under-recoveries/subsidies	30-31
	MISCELLANEOUS	
26	Capital expenditure of PSU oil companies	33
27	Conversion factors and volume conversion	34

Highlights for the month

- Indigenous crude oil and condensate production during January 2023 was down by 1.1 % than that of January 2022 as compared to a de-growth of 1.1 % during December 2022. OIL registered a growth of 7.0 % and ONGC registered a growth of 0.551 % during January 2023 as compared to January 2022. PSC registered de-growth of 9.0 % during January 2023 as compared to January 2022. De-growth of 1.3 % was registered in the total crude oil and condensate production during April - January 2023 over the corresponding period of the previous year.
- 'Crude oil processed during January 2023 was 22.8 MMT, which was 5.1 % higher than January 2022 as compared to a growth of 3.7 % during December 2022. Growth of 6.3 % was registered in the total crude oil processing during April-January 2023 over the corresponding period of the previous year.
- Crude oil imports increased by 3.6% and 9.5% during January 2023 and April-January 2023 respectively as compared to the corresponding period of the previous year. The net import bill for Oil & Gas was \$11.1 billion in January 2023 compared to \$11.3 billion in January 2022. In this the crude oil imports constitutes \$11.2 billion, LNG imports \$1.6 billion and the exports were \$3.9 billion during January 2023.
- The price of Brent Crude averaged \$82.78/bbl during January 2023 as against \$81.12/bbl during Decembet 2022 and \$87.22/bbl during January 2022. The Indian basket crude price averaged \$80.92/bbl during January 2023 as against \$78.10/bbl during December 2022 and \$84.67 /bbl during January 2022.
- Production of petroleum products saw a growth of 4.5 % during January 2023 over January 2022 as compared to a growth of 3.7 % during December 2022. Growth of 5.3 % was registered in the total POL production during April- January 2023 over the corresponding period of the previous year.
- POL products imports increased by 4.2% and 5.4% during January 2023 and April-January 2023 respectively as compared to the corresponding period of the previous year. Increase in POL products imports during April-January 2023 were mainly due to increase in imports of liquified petroleum gas (LPG), motor spirt (MS), high speed diesel (HSD), fuel oil (FO) and petcoke etc.

• Exports of POL products decreased by 11.3% and 1.8% during January 2023 and April- January 2023 respectively as compared to the corresponding period of the previous year. Decrease in POL products exports during April- January 2023 were mainly due to decrease in exports of Motor spirit (MS), Naphtha, Superior Kerosene Oil (SKO), High Speed Diesel (HSD) and Bitumen etc.
• The consumption of petroleum products during April-Jan 2023 with a volume of 183.32 MMT reported a growth of 9.6% compared to the volume of 167.25 MMT during the same period of the previous year. This growth was led by 14.6% growth in MS, 13.8% in HSD & 50.2% in ATF consumption besides FO/LSHS, Petcoke, LPG and others during the period. The consumption of petroleum products during Jan 2023 recorded a growth of 3.6% with a volume of 18.1 MMT compared to the same period of the previous year.
• Ethanol blending with Petrol was 11.63% during January 2023 and cumulative ethanol blending during December 2022- January 2023 was 11.01%.
• Total Natural Gas Consumption (including internal consumption) for the month of January 2023 was 5179 MMSCM which was 6.4% higher than the corresponding month of the previous year. The cumulative consumption of 50840 MMSCM for the current financial year till January 2023 was lower by 6.1 % compared with the corresponding period of the previous year.
• Gross production of natural gas for the month of January 2023 (P) was 2975 MMSCM which was higher by 4.0% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 28843 MMSCM for the current financial year till January 2023 was higher by 1.1% compared with the corresponding period of the previous year.
• LNG import for the month of January 2023 (P) was 2266 MMSCM which was 7.9% higher than the corresponding month of the previous year. The cumulative import of 22660 (P) MMSCM for the current financial year till January 2023 was lower by 14% compared with the corresponding period of the previous year.



PART-A

Economic Indicators

1. Selected indicators of the Indian economy								
Economic indicators		Unit/ Base	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
1	Population (basis RGI projections)	Billion	1.309	1.323	1.337	1.351	1.365	1.377
2	GDP at constant (2011-12 Prices)	Growth %	6.8 3rd RE	6.5 2nd RE	4.0 1st RE	-6.6 1st RE	8.7 PE (2021-22)	7.0 1st AE
3	Agricultural Production (Food grains)	MMT	285.0	285.2	297.5	310.7	315.7 4th AE	149.9 1st AE (Kharif)
		Growth %	3.6	0.1	4.3	4.5	1.6	-
4	Gross Fiscal Deficit (as percent of GDP)	%	3.5	3.4	4.6	9.5 RE	6.7 RE	6.4 RE

Economic indicators		Unit/ Base	2020-21	2021-22 (P)	Jan		April-Jan	
					2021-22	2022-23 (P)	2021-22	2022-23 (P)
5	Index of Industrial Production (Base: 2011-12)	Growth %	-8.4	11.4	1.0*	4.3* QE	15.3#	5.4#
6	Imports^	\$ Billion	394.4	611.9	60.3	58.2	441.5	551.7
7	Exports^	\$ Billion	291.8	419.7	39.3	34.5	305.0	332.8
8	Trade Balance	\$ Billion	-102.6	-192.2	-21.1	-23.8	-136.5	-218.9
9	Foreign Exchange Reserves @	\$ Billion	579.3	617.6	629.8	576.8	-	-

Population projection by RGI is taken as on 1st July for the year. IIP is for the month of *Dec and #April-Dec; @2020-21-as on March 26, 2021, 2021-22 - as on March 26, 2022, Dec 2021 as on Dec 31, 2021 and Dec 2022-as on Dec 30, 2022; ^Imports & Exports are for Merchandise for the month of December 22; E: Estimates; PE: Provisional Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.

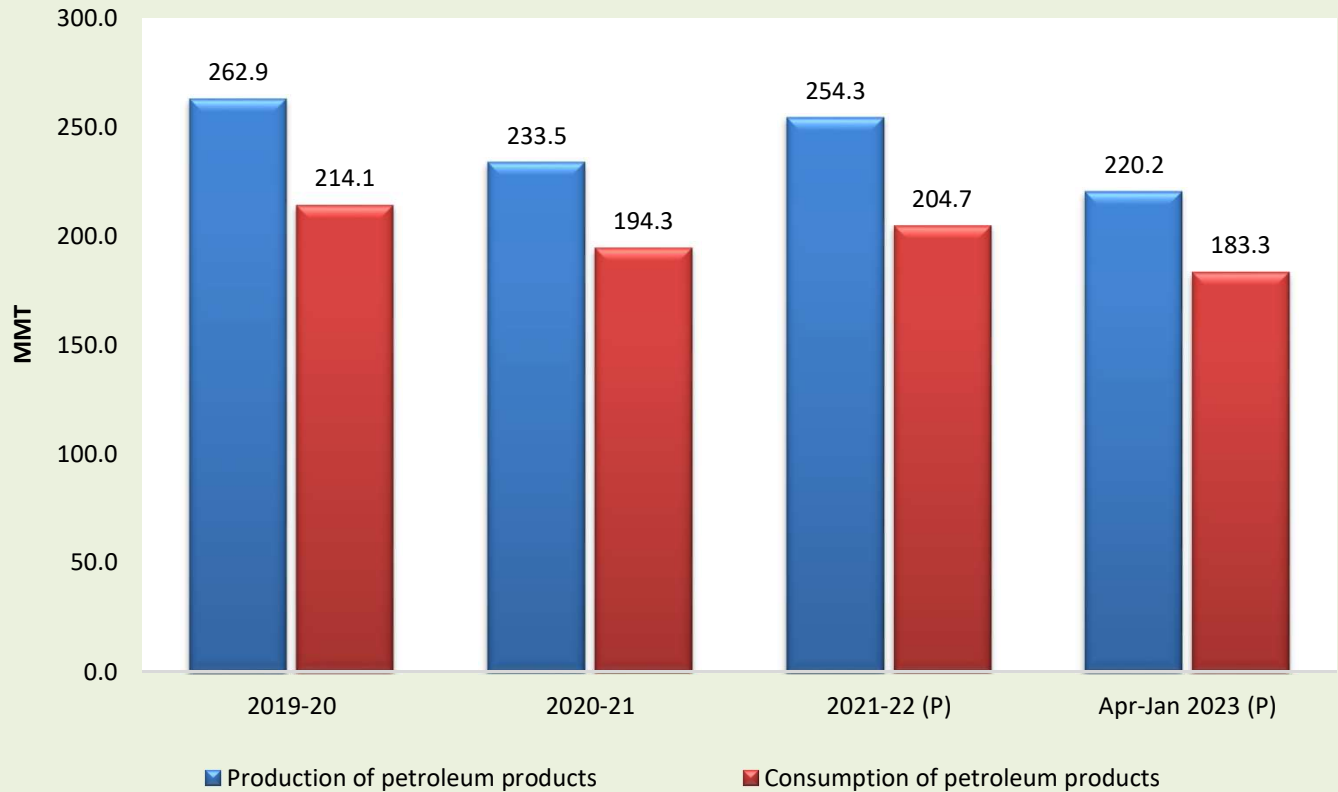
Source: Registrar General India, Ministry of Commerce & Industry, Ministry of Statistics and Programme Implementation, Ministry of Agriculture & Farmer's Welfare, Ministry of Finance, Reserve Bank of India

2. Crude oil, LNG and petroleum products at a glance

Details		Unit/ Base	2020-21	2021-22 (P)	Jan		April-Jan	
					2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
1	Crude oil production in India [#]	MMT	30.5	29.7	2.5	2.5	24.9	24.6
2	Consumption of petroleum products*	MMT	194.3	204.7	18.1	18.7	167.2	183.3
3	Production of petroleum products	MMT	233.5	254.3	23.0	24.0	209.0	220.2
4	Gross natural gas production	MMSCM	28,672	34,024	2,861	2,975	28,535	28,843
5	Natural gas consumption	MMSCM	60,982	64,159	4,961	5,179	54,164	50,840
6	Imports & exports:							
Crude oil imports		MMT	196.5	212.4	19.3	20.0	175.8	192.4
		\$ Billion	62.2	120.7	11.6	11.2	94.2	136.2
Petroleum products (POL) imports*		MMT	43.2	42.1	3.9	4.0	34.7	36.6
		\$ Billion	14.8	25.2	2.3	2.1	20.3	22.7
Gross petroleum imports (Crude + POL)		MMT	239.7	254.4	23.1	24.0	210.5	229.0
		\$ Billion	77.0	145.9	13.8	13.3	114.5	158.9
Petroleum products (POL) export		MMT	56.8	62.8	5.1	4.5	51.2	50.2
		\$ Billion	21.4	44.4	3.8	3.9	33.4	49.2
LNG imports*		MMSCM	33,198	31,028	2,100	2,266	26,360	22,660
		\$ Billion	7.9	13.5	1.3	1.6	10.9	15.9
Net oil & gas imports		\$ Billion	63.5	114.9	11.3	11.1	92.0	125.6
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	19.5	23.8	22.9	22.9	25.9	28.8
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	7.3	10.6	9.8	11.2	10.9	14.8
9	Import dependency of crude oil (on POL consumption basis)	%	84.4	85.7	85.7	87.3	85.3	87.0

[#]Includes condensate; *Private direct imports are prorated for the period Nov'22 to Jan'23 for POL. LNG Imports figures from DGCIS are prorated for Dec-Jan 2023. Total may not tally due to rounding off.

Production & Consumption of Petroleum Products (MMT)





PART-B

Crude Oil, Refining & Production

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2020-21	2021-22	Jan			April-Jan		
			2021-22	2022-23 Target*	2022-23 (P)	2021-22	2022-23 Target*	2022-23 (P)
ONGC	19.1	18.5	1.6	1.8	1.6	15.5	17.6	15.5
Oil India Limited (OIL)	2.9	3.0	0.3	0.3	0.3	2.5	2.8	2.6
Private / Joint Ventures (JVs)	7.1	7.0	0.6	0.6	0.5	5.9	6.0	5.3
Total Crude Oil	29.1	28.4	2.4	2.7	2.4	23.8	26.5	23.4
ONGC condensate	1.1	0.9	0.08	0.0	0.1	0.8	0.0	0.9
PSC condensate	0.3	0.30	0.02	0.0	0.03	0.26	0.0	0.25
Total condensate	1.4	1.2	0.10	0.0	0.1	1.0	0.0	1.1
Total (Crude + Condensate) (MMT)	30.5	29.7	2.5	2.7	2.5	24.9	26.5	24.6
Total (Crude + Condensate) (Million Bbl/Day)	0.61	0.60	0.59	0.64	0.59	0.60	0.63	0.59

*Provisional targets inclusive of condensate.

4. Domestic and overseas oil & gas production (by Indian Companies)

Details	2020-21	2021-22 (P)	Jan		April-Jan	
			2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
Total domestic production (MMTOE)	59.2	63.7	5.4	5.5	53.4	53.4
Overseas production (MMTOE)	21.9	21.8	1.8	1.5	18.4	15.7

Source: ONGC Videsh, GAIL, OIL, IOCL, HPCL & BPRL

5. High Sulphur (HS) & Low Sulphur (LS) crude oil processing (MMT)

Details		2020-21	2021-22	Jan		April-Jan	
				2021-22	2022-23 (P)	2021-22	2022-23 (P)
1	High Sulphur crude	161.4	185.0	17.1	17.6	151.9	163.3
2	Low Sulphur crude	60.3	56.7	4.6	5.3	47.1	48.1
Total crude processed (MMT)		221.8	241.7	21.7	22.8	198.9	211.4
Total crude processed (Million Bbl/Day)		4.45	4.85	5.13	5.39	4.77	5.06
Percentage share of HS crude in total crude oil processing		72.8%	76.6%	78.7%	77.0%	76.3%	77.2%

6. Quantity and value of crude oil imports			
Year	Quantity (MMT)	\$ Million	Rs. Crore
2020-21	196.5	62,248	4,59,779
2021-22 (P)	212.4	120,675	9,01,262
April-Jan 2022-23(P)	192.4	136,238	10,84,823

7. Self-sufficiency in petroleum products (Million Metric Tonnes)							
Particulars		2020-21	2021-22 (P)	Jan		April-Jan	
				2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
1	Indigenous crude oil processing	28.0	27.0	2.4	2.2	22.7	22.4
2	Products from indigenous crude (93.3% of crude oil processed)	26.1	25.2	2.3	2.1	21.2	20.9
3	Products from fractionators (Including LPG and Gas)	4.2	4.1	0.3	0.3	3.4	3.0
4	Total production from indigenous crude & condensate (2 + 3)	30.3	29.3	2.6	2.4	24.6	23.8
5	Total domestic consumption	194.3	204.7	18.1	18.7	167.2	183.3
% Self-sufficiency (4 / 5)		15.6%	14.3%	14.3%	12.7%	14.7%	13.0%

8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)

Sl. no.	Refinery	Installed capacity (01.01.2022) MMTPA	Crude oil processing (MMT)							
			2020-21	2021-22	Jan			April-Jan		
					2021-22	2022-23 (Target)	2022-23 (p)	2021-22	2022-23 (Target)	2022-23 (p)
1	Barauni (1964)	6.0	5.5	5.6	0.6	0.6	0.6	4.5	5.4	5.7
2	Koyali (1965)	13.7	11.6	13.5	1.3	1.3	1.3	10.9	11.9	13.0
3	Haldia (1975)	8.0	6.8	7.3	0.3	0.5	0.7	5.9	6.9	7.1
4	Mathura (1982)	8.0	8.9	9.1	0.7	0.8	0.8	7.5	8.0	7.9
5	Panipat (1998)	15.0	13.2	14.8	1.2	1.3	1.3	12.4	12.4	11.3
6	Guwahati (1962)	1.0	0.8	0.7	0.09	0.1	0.1	0.55	0.9	0.9
7	Digboi (1901)	0.65	0.6	0.7	0.06	0.06	0.06	0.6	0.5	0.6
8	Bongaigaon(1979)	2.70	2.5	2.6	0.2	0.2	0.3	2.2	2.2	2.3
9	Paradip (2016)	15.0	12.5	13.2	1.3	1.4	1.4	10.6	11.4	11.0
	IOCL-TOTAL	70.1	62.4	67.7	5.8	6.2	6.5	55.2	59.7	59.8
10	Manali (1969)	10.5	8.2	9.0	0.9	0.9	1.0	7.0	9.0	9.4
11	CBR (1993)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	CPCL-TOTAL	10.5	8.2	9.0	0.9	0.9	1.0	7.0	9.0	9.4
12	Mumbai (1955)	12.0	12.9	14.4	1.3	1.3	1.4	11.9	11.6	11.9
13	Kochi (1966)	15.5	13.3	15.4	1.5	1.4	1.5	12.5	12.9	13.1
14	Bina (2011)	7.8	6.2	7.4	0.7	0.7	0.7	6.1	6.4	6.4
	BPCL-TOTAL	35.3	32.4	37.2	3.5	3.4	3.6	30.5	30.9	31.4
15	Numaligarh (1999)	3.0	2.7	2.6	0.3	0.3	0.3	2.2	2.6	2.6

Sl. no.	Refinery	Installed capacity (1.01.2022) (MMTPA)	Crude oil processing (MMT)							
			2020-21	2021-22	Jan			April-Jan		
					2021-22	2022-23 (Target)	2022-23 (P)	2021-22	2022-23 (Target)	2022-23 (P)
16	Tatipaka (2001)	0.066	0.081	0.075	0.007	0.004	0.007	0.063	0.054	0.062
17	MRPL-Mangalore (1996)	15.0	11.5	14.9	1.4	1.5	1.5	12.0	14.2	14.2
	ONGC-TOTAL	15.1	11.6	14.9	1.4	1.5	1.5	12.0	14.3	14.3
18	Mumbai (1954)	9.5	7.4	5.6	0.9	0.8	0.8	4.1	7.0	8.1
19	Visakh (1957)	8.3	9.1	8.4	0.8	0.8	0.8	6.8	7.6	7.7
20	HMEL-Bathinda (2012)	11.3	10.1	13.0	1.1	1.0	1.1	10.9	9.6	10.6
	HPCL- TOTAL	29.1	26.5	27.0	2.7	2.5	2.8	21.8	24.2	26.4
21	RIL-Jamnagar (DTA) (1999)	33.0	34.1	34.8	3.0	3.0	2.8	28.9	28.9	29.0
22	RIL-Jamnagar (SEZ) (2008)	35.2	26.8	28.3	2.2	2.2	2.5	24.2	24.2	23.1
23	NEL-Vadinar (2006)	20.0	17.1	20.2	1.7	1.7	1.7	16.9	16.9	15.4
All India (MMT)		251.2	221.8	241.7	21.7	21.8	22.8	198.9	210.7	211.4
All India (Million Bbl/Day)		5.02	4.45	4.85	5.13	5.16	5.39	4.77	5.05	5.06

Note: Provisional Targets; Some sub-totals/ totals may not add up due to rounding off at individual levels.

9. Major crude oil and product pipeline network (as on 01.02.2023)										
Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,284	1,193	688	1,017	5,301	937			10,420
	Cap (MMTPA)	60.6	9.0	10.7	11.3	48.6	7.8			147.9
Products	Length (KM)		654			11,214	2,596	3,775	2,386	20,625
	Cap (MMTPA)		1.7			59.4	23.0	34.1	9.4	127.6

*Others include GAIL and Petronet India. HPCL and BPCL lubes pipeline included in products pipeline data

Refineries

Refinery	Capacity (MMTPA)
ONGC	10.6
Indian Refining Corporation Ltd.	8.7
Reliance Industries Limited	8.5
NALCO	7.9
Indian Petrochemical Corporation Ltd.	7.5
IOCL	6.5
BPCL	6.5
HPCL	6.5
Adani Petroleum Limited	6.5
Other Refineries	1.5

Refineries Capacity in MMTPA

Major Producing Fields

LNG Terminals

 Dabhol, Dahej, Hazira, Kochi, Mundra, Ennore
 (Upcoming Terminals) Dhamra, Jafrabad, Jaigathi, Chhara

Pipelines Network

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

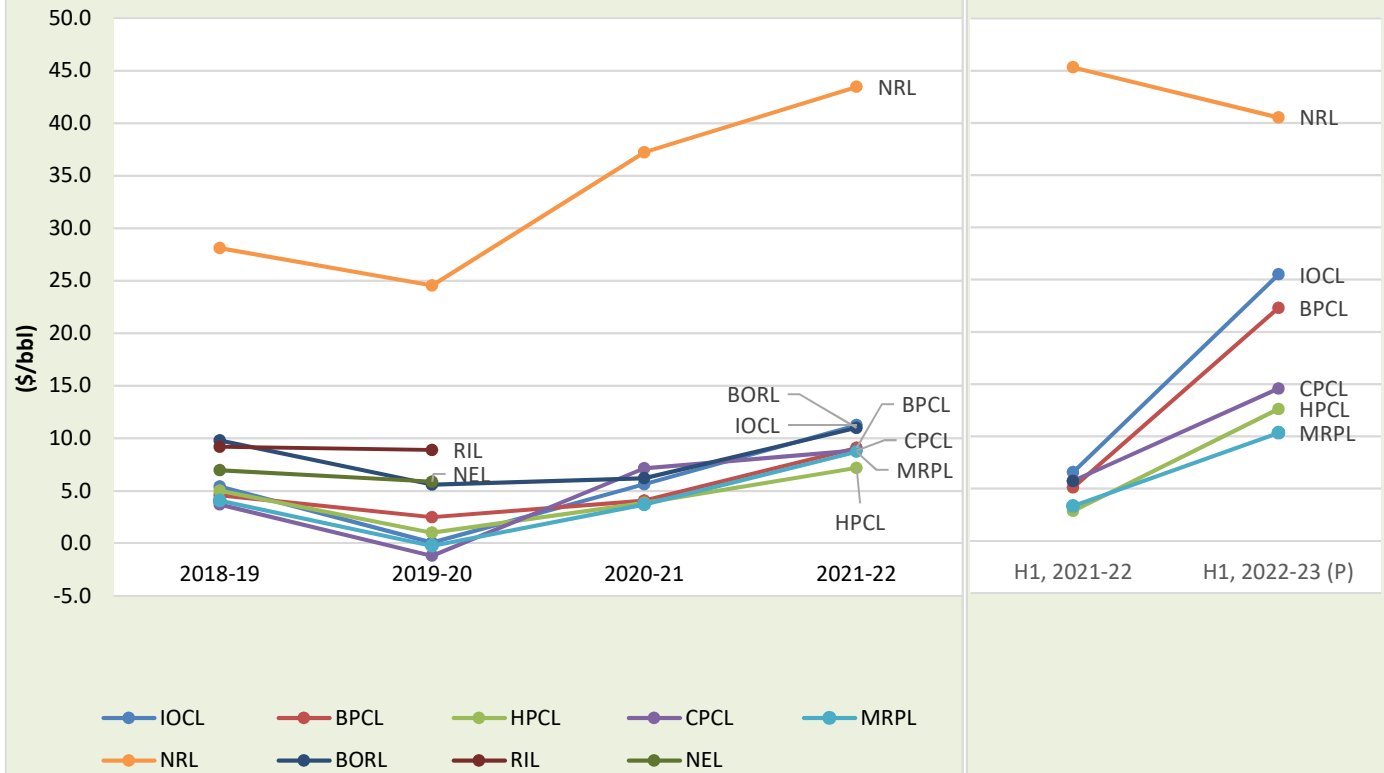
10. Gross Refining Margins (GRM) of refineries (\$/bbl)					
Company	2019-20	2020-21	2021-22	Apr - Sept	
				2021-22	2022-23 (P)
IOCL	0.08	5.64	11.25	6.57	25.49
BPCL	2.50	4.06	9.09	5.11	22.30
HPCL	1.02	3.86	7.19	2.87	12.62
CPCL	-1.18	7.14	8.85	5.75	14.58
MRPL	-0.23	3.71	8.72	3.33	10.33
NRL	24.55	37.23	43.46	45.31	40.51
BORL	5.60	6.20	11.00	5.70	#
RIL	8.90	*	*	*	*
NEL	5.88	*	*	*	*

GRM of North Eastern refineries are including excise duty benefit

BPCL figures effective 2022-23 includes BORL also after its merger with BPCL

*Not available

Gross Refining Margins (GRM) of refineries (\$/bbl)



GRM of North Eastern refineries are including excise duty benefit



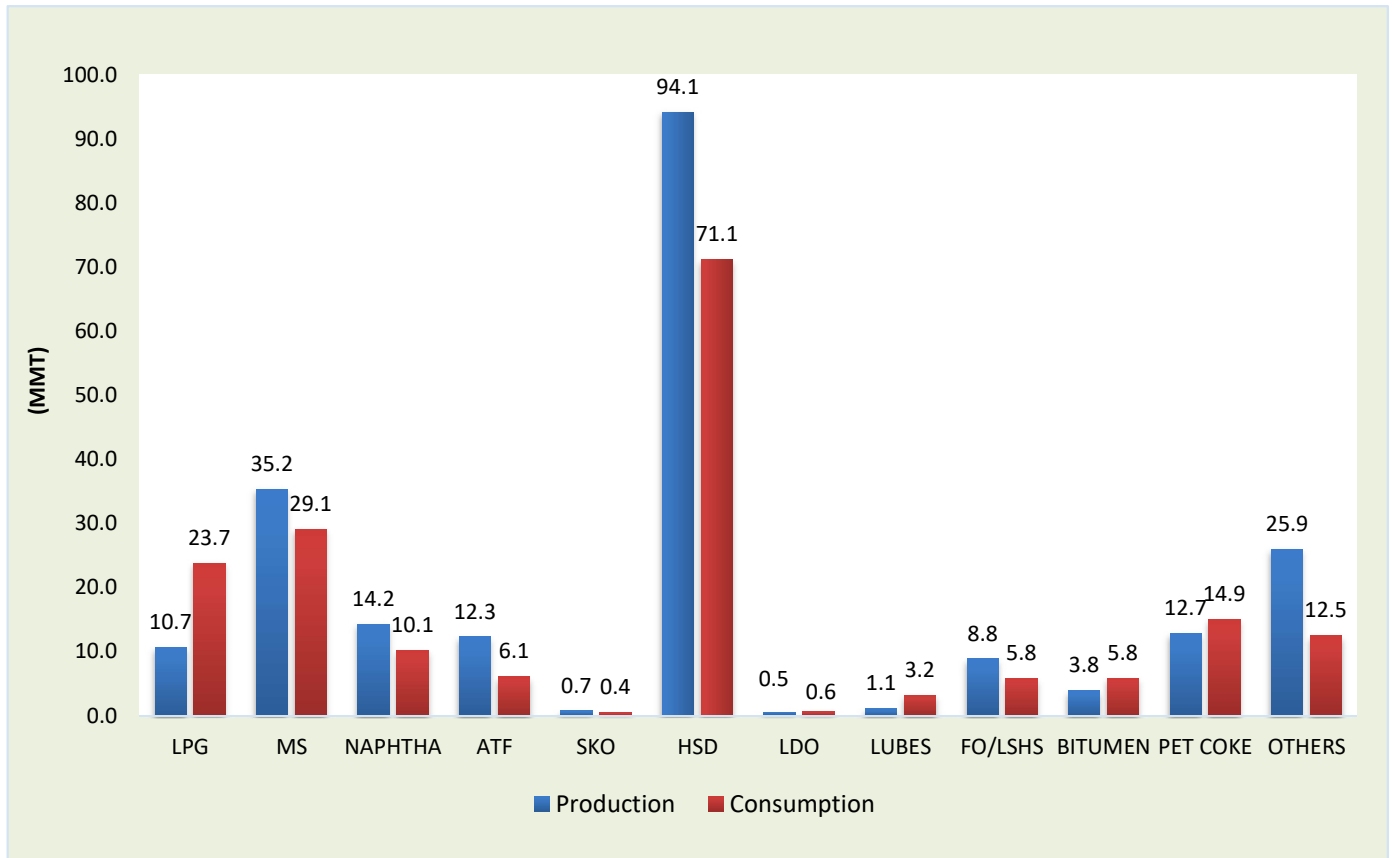
PART-C

Consumption

11. Production and consumption of petroleum products (Million Metric Tonnes)												
Products	2020-21		2021-22 (P)		Jan 2022		Jan 2023 (P)		Apr-Jan 2022		Apr-Jan 2023 (P)	
	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.1	27.6	12.2	28.3	1.1	2.6	1.1	2.5	10.1	23.5	10.7	23.7
MS	35.8	28.0	40.2	30.8	3.7	2.5	3.8	2.8	33.1	25.4	35.2	29.1
NAPHTHA	19.4	14.1	20.0	14.3	1.7	1.4	1.5	1.2	16.5	12.0	14.2	10.1
ATF	7.1	3.7	10.3	5.0	1.0	0.5	1.4	0.7	8.3	4.0	12.3	6.1
SKO	2.4	1.8	1.9	1.5	0.2	0.1	0.1	0.0	1.6	1.3	0.7	0.4
HSD	100.4	72.7	107.2	76.7	9.5	6.4	10.2	7.2	87.9	62.5	94.1	71.1
LDO	0.7	0.9	0.8	1.0	0.07	0.09	0.07	0.05	0.6	0.9	0.5	0.6
LUBES	1.1	4.1	1.2	4.6	0.1	0.3	0.1	0.4	0.9	3.7	1.1	3.2
FO/LSHS	7.4	5.6	8.9	6.3	0.8	0.5	0.9	0.6	7.4	5.2	8.8	5.8
BITUMEN	4.9	7.5	5.1	7.9	0.5	0.8	0.4	0.6	3.9	6.0	3.8	5.8
PET COKE	12.0	15.6	15.5	15.8	1.5	1.9	1.4	1.6	12.7	12.5	12.7	14.9
OTHERS	30.2	12.8	30.9	12.5	2.8	1.0	3.0	1.1	25.8	10.4	25.9	12.5
ALL INDIA	233.5	194.3	254.3	204.7	23.0	18.1	24.0	18.7	209.0	167.2	220.2	183.3
Growth (%)	-11.0%	-8.9%	8.9%	5.4%	3.7%	2.5%	4.5%	3.6%	9.3%	5.2%	5.3%	9.6%

Note: Prod - Production; Cons - Consumption

Petroleum Products: April-Jan 2023 (P) (MMT)



12. Kerosene allocation vs upliftment (Kilo Litres)								
Product	2019-20		2020-21		2021-22		2022-23 (P)*	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
PDS Kerosene	31,21,328	27,93,217	23,15,008	20,38,790	17,83,344	16,59,906	12,43,644	3,51,486

* Allocation is for Q1, Q2, Q3 & Q4 2022-23 and upliftment is for Apr-Jan 2022-23

13. Ethanol blending programme					
Particulars	Ethanol Supply Year *				
	2019-20	2020-21	2021-22	2022-23 (P)	
				Jan-23	Dec'22-Jan'23
Ethanol received by PSU OMCs under EBP Program (in Cr. Litrs)	173.0	296.1	408.1	46.0	84.3
Ethanol blended under EBP Program (in Cr. Litrs)	170.5	302.3	433.6	41.8	81.3
Average Percentage of Blending Sales (EBP%)	5.0%	8.1%	10.0%	11.6%	11.0%

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

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

14. Industry marketing infrastructure (as on 01.02.2023) (Provisional)								
Particulars	IOCL	BPCL	HPCL	RIL/RBML/RSIL	NEL	SHELL	Others	Total
POL Terminal/ Depots (Nos.) ^S	120	82	82	18	3		6	311
Aviation Fuel Stations (Nos.) [@]	130	63	52	30			2	277
Retail Outlets (total) (Nos.) [^]	35,758	20,824	20,891	1,531	6,447	351	49	85,851
out of which Rural ROs	11,535	5,188	5,157	130	2,123	86	16	24,235
SKO/LDO agencies (Nos.)	3,871	927	1,638					6,436
LPG Distributors (total) (Nos.) (PSUs only)	12,847	6,240	6,268					25,355
LPG Bottling plants (Nos.) (PSUs only) [#]	96	54	53				3	206
LPG Bottling capacity (TMTPA) (PSUs only) ^{&}	10,658	4,890	6,170				203	21,921
LPG active domestic consumers (Nos. crore) (PSUs only)	14.6	8.1	8.7					31.4

^S(Others=4 MRPL & 2 NRL); [@](Others=ShellMRPL); [^](Others=MRPL); [#](Others=NRL-1, OIL-1, CPCL-1); [&](Others=NRL-60, OIL-23, CPCL-120); RBML- Reliance BP Mobility Limited; RSIL- RBML Solutions India Ltd.

Industry Alternate fuel infrastructure at Retail outlets (Nos. of ROs as on 01.02.2023) (Provisional)			
Alternate fuel	PSU	Private	Total
CNG_LNG	4343	43	4386
EV Charging	5754	32	5786
Auto LPG	527	118	645
Compressed Bio-Gas outlets	78	0	78
Total Retail outlets with at least one Alternate fuel	9821	188	10009



PART-D

LPG

15. LPG consumption (Thousand Metric Tonne)								
LPG category	2020-21	2021-22	Jan			April-Jan		
			2021-22	2022-23 (P)	Growth (%)	2021-22	2022-23 (P)	Growth (%)
1. PSU Sales :								
LPG-Packed Domestic	25,128.1	25,501.6	2,312.1	2,224.9	-3.8%	21,151.6	21,116.3	-0.2%
LPG-Packed Non-Domestic	1,886.0	2,238.8	194.4	238.2	22.5%	1,818.5	2,160.4	18.8%
LPG-Bulk	361.9	390.9	46.2	35.0	-24.2%	316.9	338.0	6.7%
Auto LPG	118.4	122.0	9.4	8.3	-10.9%	100.6	90.7	-9.8%
Sub-Total (PSU Sales)	27,494.3	28,253.3	2,562.2	2,506.5	-2.2%	23,387.6	23,705.4	1.4%
2. Direct Private Imports*	64.2	82.0	4.54	2.7	-40.6%	69.5	8.1	-88.3%
Total (1+2)	27,558.4	28,335.3	2,566.7	2,509.2	-2.2%	23,457.1	23,713.5	1.1%

*Nov'22 -Jan'23 DGCIS data is prorated

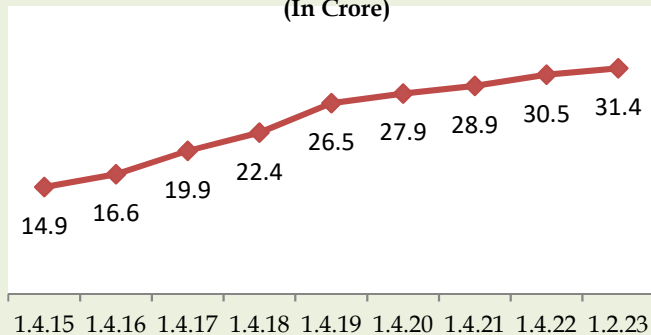
16. LPG marketing at a glance														
Particulars (As on 1st of April)	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1.02.23 (P)
LPG Active Domestic Customers	(Lakh)					1486	1663	1988	2243	2654	2787	2895	3053	3139
	Growth						11.9%	19.6%	12.8%	18.3%	5.0%	3.9%	5.5%	3.1%
LPG Coverage (Estimated)	(Percent)					56.2	61.9	72.8	80.9	94.3	97.5	99.8	-	-
	Growth						10.1%	17.6%	11.1%	16.5%	3.4%	2.3%	-	-
PMUY Beneficiaries	(Lakh)							200	356	719	802	800.4	899.0	958.7
	Growth								77.7%	101.9%	11.5%	-0.2%	12.2%	6.6%
LPG Distributors	(No.)	10541	11489	12610	13896	15930	17916	18786	20146	23737	24670	25083	25269	25355
	Growth	8.8%	9.0%	9.8%	10.2%	14.6%	12.5%	4.9%	7.2%	17.8%	3.9%	1.7%	0.7%	0.6%
Auto LPG Dispensing Stations	(No.)	604	652	667	678	681	676	675	672	661	657	651	601	527
	Growth	12.7%	7.9%	2.3%	1.6%	0.4%	-0.7%	-0.1%	-0.4%	-1.6%	-0.6%	-0.9%	-8.5%	-16.9%
Bottling Plants	(No.)	183	184	185	187	187	188	189	190	192	196	200	202	206
	Growth	0.5%	0.5%	0.5%	1.1%	0.0%	0.5%	0.5%	0.5%	1.1%	2.1%	2.0%	1.0%	3.5%

Source: PSU OMCs (IOCL, BPCL and HPCL)

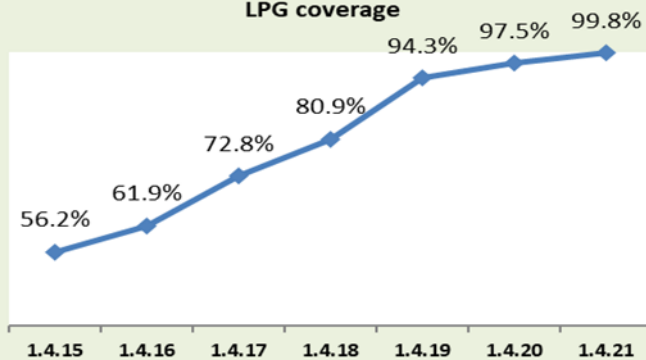
1. Growth rates as on 01.02.2023 are with respect to figs as on 01.02.2022. Growth rates as on 1 April of any year are with respect to figs as on 1 April of previous year.

2. 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.

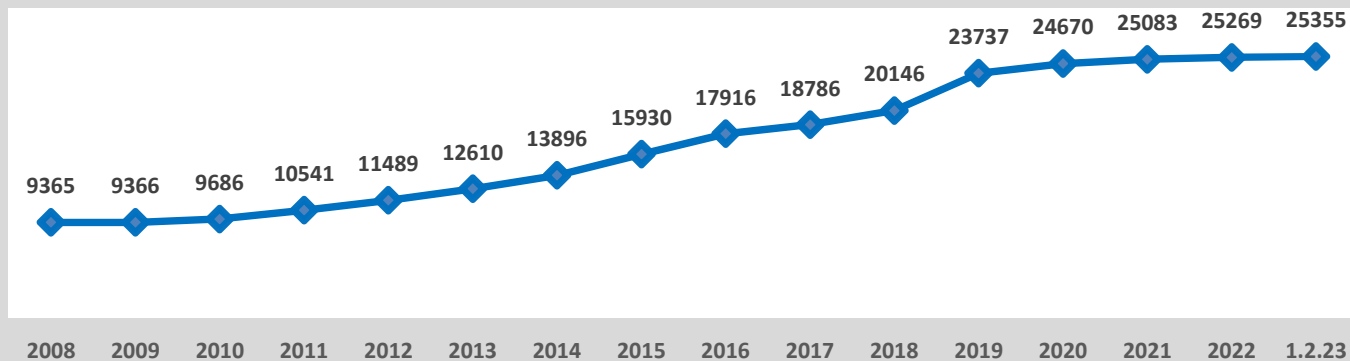
**Number of active LPG domestic customers
(In Crore)**



LPG coverage



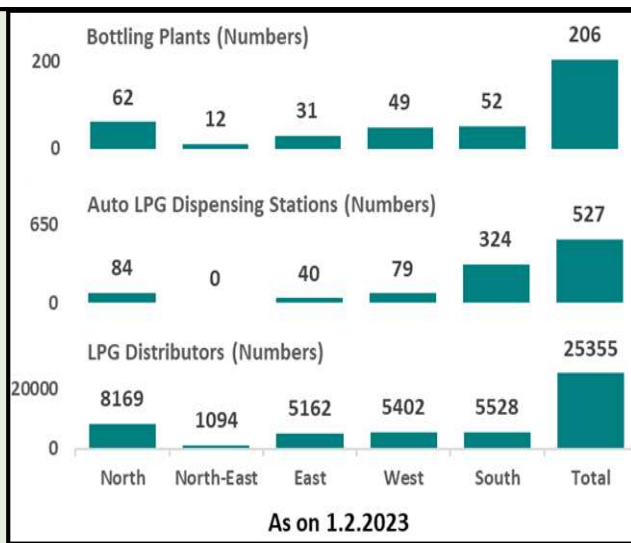
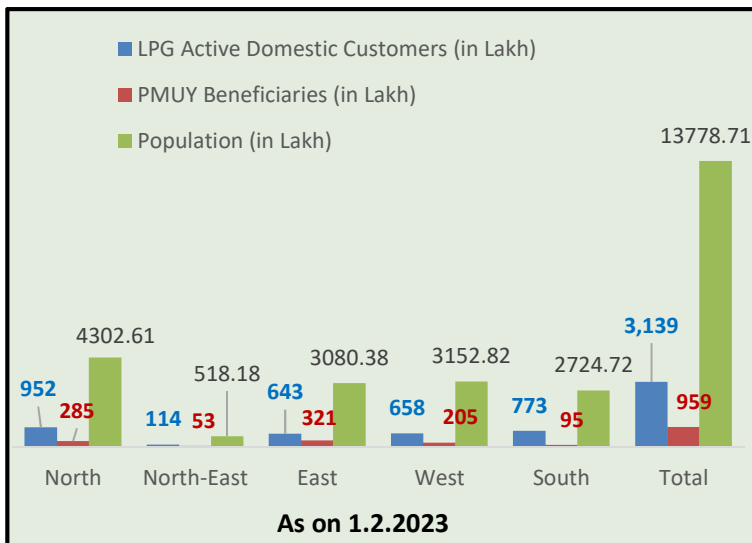
**Number of LPG distributors
(As on 1st April)**



17-Region-wise data on LPG marketing (As on 01.02.2023)

Particulars	North	North-East	East	West	South	Total
LPG Active Domestic Customers (in Lakh)	951.7	113.5	643.2	657.9	773.2	3139.5
Population^ (in Lakh)	4302.6	518.2	3080.4	3152.8	2724.7	13778.7
PMUY Beneficiaries (in Lakh)	285.3	52.9	320.9	204.7	94.9	958.7
LPG Distributors (Numbers)	8169	1094	5162	5402	5528	25355
Auto LPG Dispensing Stations (Numbers)	84	0	40	79	324	527
Bottling Plants* (Numbers)	62	12	31	49	52	206

*Includes Numaligarh BP, Duliajan BP and CPCL BP. ^Population as on 1st July 2022 taken from RGI POPULATION PROJECTIONS 2011 – 2036





PART-E

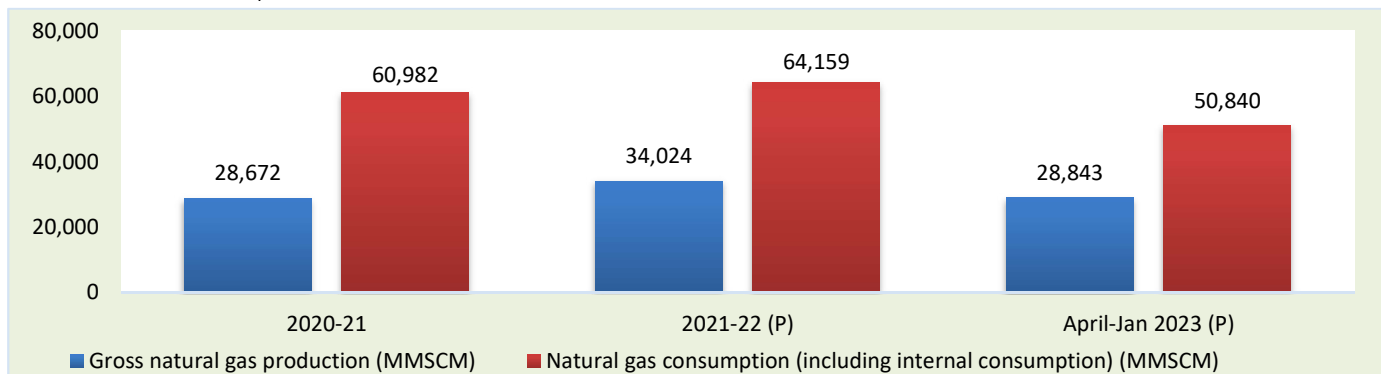
Natural Gas

18. Natural gas at a glance

(MMSCM)

Details	2020-21 (P)	2021-22 (P)	Jan			April-Jan		
			2021-22 (P)	2022-23 (Target)	2022-23 (P)	2021-22 (P)	2022-23 (Target)	2022-23 (P)
(a) Gross production	28,672	34,024	2,861	3,197	2,975	28,535	30,420	28,843
- ONGC	21,872	20,629	1,749	1,821	1,704	17,291	17,996	16,761
- Oil India Limited (OIL)	2,480	2,893	233	280	253	2,423	2,708	2,548
- Private / Joint Ventures (JVs)	4,321	10,502	879	1,096	1,018	8,821	9,716	9,534
(b) Net production (excluding flare gas and loss)	27,784	33,131	2,861		2,913	27,803		28,180
(c) LNG import [#]	33,198	31,028	2,100		2,266	26,360		22,660
(d) Total consumption including internal consumption (b+c)	60,982	64,159	4,961		5,179	54,164		50,840
(e) Total consumption (in BCM)	61.0	64.2	5.0		5.2	54.2		50.8
(f) Import dependency based on consumption (%), {c/d*100}	54.4	48.4	42.3		43.8	48.7		44.6

Dec - Jan 2023 DGCIS data prorated.



19. Coal Bed Methane (CBM) gas development in India			
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		17652	Sq. KM
Area awarded		20460	Sq. KM
Blocks awarded*		36	Nos.
Exploration initiated (Area considered if any boreholes were drilled in the awarded block)		10670***	Sq. KM
Production of CBM gas	April-Jan 2023 (P)	567.41	MMSCM
Production of CBM gas	Jan 2023 (P)	55.91	MMSCM

*ST CBM Block awarded & relinquished twice- in CBM Round II and Round IV -Area considered if any boreholes were drilled in the awarded block. **MoPNG awarded 04 new CBM Blocks (Area 3862 sq. km) under Special CBM Bid Round 2021 in September 2022. ***Area considered if any boreholes were drilled in the awarded block.

19a. Status of Compressed Bio Gas (CBG) projects under SATAT (as on 01.02.2023) (Provisional)							
Particulars	Units	IOCL	HPCL	BPCL	GAIL	IGL	Total
LOIs issued	No. of plants	2745	474	318	276	.50	3863
Expected CBG production against LOI issued	Tons per day	19386	2576	1412	1568.43	247.2	25189.63
No. of CBG plants commissioned/ Sale initiated	No. of plants	20	4	2**	08	3	37
Start of CBG sale from retail outlet(s)	Nos.	39	23*	38	01	1	102
Injection/Supply of CBG in CGD network	GA Nos.	-	-	-	13	2	15
Total Sale of CBG (since Sep'2019)	Tons	9976	1509*	1980	3390#	466.52	17,322

*2 HPCL ROs sourcing CBG from HPCL LOI holder plants, 21 HPCL ROs sourcing CBG from other than HPCL LOI holder plants. ** **Total No. of CBG and Bio gas plants commissioned is 8. #Till Dec 2022

20. Common Carrier Natural Gas pipeline network as on 30.09.2022														
Nature of pipeline		GAIL	GSPL	PIL	IOCL	AGCL	RGPL	GGL	DFPCL	ONGC	GIGL	GITL	Others*	Total
Operational	Length	9,577	2,695	1,459	143	107	304	73	42	24				14,424
	Capacity	167.2	43.0	85.0	20.0	2.4	3.5	5.1	0.7	6.0			-	-
Partially commissioned [#]	Length	4,777			282						1,254	365		6,678
	Capacity				-						-	-		-
Total operational length		14,354	2,695	1,459	425	107	304	73	42	24	1,254	365	0	21,102
Under construction	Length	5,097	100		1,149						1,078	1,666	2,915	12,005
	Capacity	-	3.0		-						-	-	-	-
Total length		19,451	2,795	1,459	1,574	107	304	73	42	24	2,332	2,031	2,915	33,107

Source: PNGRB; Length in Kms ; Authorized Capacity in MMSCMD; *Others-APGDC, HEPL, IGGL, IMC, Consortium of H-Energy. Total authorized Natural Gas pipelines including Tie-in connectivity, dedicated & STPI is 35335 Kms (P)

21. Existing LNG terminals			
Location	Promoters	Capacity as on 01.02.2023	% Capacity utilisation (April-Dec 2022)
Dahej	Petronet LNG Ltd (PLL)	17.5 MMTPA	78.4
Hazira	Shell Energy India Pvt. Ltd.	5.2 MMTPA	40.6
Dabhol	Konkan LNG Limited	*5 MMTPA	31.0
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	18.1
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	13.0
Mundra	GSPC LNG Limited	5 MMTPA	17.7
Total Capacity		42.7 MMTPA	

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

22. Status of PNG connections and CNG stations across India (Nos.), as on 31.12.2022(P)				
State/UT (State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	PNG connections		
		Domestic	Commercial	Industrial
Andhra Pradesh	154	242,338	413	32
Andhra Pradesh, Karnataka & Tamil Nadu	31	170	0	3
Assam	2	47,932	1,323	439
Bihar	73	86,199	63	2
Bihar & Jharkhand	1	5,921	0	0
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	25	24,896	112	21
Dadra & Nagar Haveli (UT)	7	10,281	54	54
Daman & Diu (UT)	4	5,134	46	42
Daman and Diu & Gujarat	14	1,637	3	0
Goa	11	10,480	15	28
Gujarat	971	2,889,319	21,954	5,777
Haryana	307	292,399	789	1,497
Haryana & Himachal Pradesh	9	0	0	0
Haryana & Punjab	17	0	0	0
Himachal Pradesh	7	4,058	4	0
Jharkhand	64	96,431	2	0
Karnataka	248	366,461	495	280
Kerala	95	32,476	19	14
Kerala & Puducherry	9	164	0	0
Madhya Pradesh	195	191,646	312	404
Madhya Pradesh and Chhattisgarh	5	0	0	0
Madhya Pradesh and Rajasthan	25	173	0	0
Madhya Pradesh and Uttar Pradesh	16	0	0	0
Maharashtra	634	2,667,332	4,568	821
Maharashtra & Gujarat	58	131,181	4	13
National Capital Territory of Delhi (UT)	470	1,343,333	3,396	1,781
Odisha	46	76,602	5	0
Puducherry & Tamil Nadu	8	143	0	0
Punjab	179	61,390	266	225
Rajasthan	208	175,550	71	224
Tamil Nadu	159	32	0	6
Telangana	142	186,218	72	91
Telangana and Karnataka	1	0	0	0
Tripura	18	58,203	506	62
Uttar Pradesh	698	1,294,924	2,104	2,493
Uttar Pradesh & Rajasthan	39	18,958	37	340
Uttar Pradesh and Uttarakhand	16	6,263	0	0
Uttarakhand	28	64,308	52	79
West Bengal	46	0	0	0
Total	5,040	10,392,552	36,685	14,728

Source: PNGRB

Note: 1. All the GAs where PNG connections/CNG Stations have been established are considered as Operational, 2. Under normal conditions. Operation of any particular GA commences within around one year of authorization. 3. State/UTs wherever clubbed are based on the GAs authorised by PNGRB.

23. Domestic natural gas price and gas price ceiling (GCV basis)

Period	Domestic Natural Gas price in US\$/MMBTU	Gas price ceiling in US\$/MMBTU
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	2.50	5.30
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.30
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	2.90	6.13
April 2022 - September 2022	6.10	9.92
October 2022 - March 2023	8.57	12.46

24. CNG/PNG prices

City	CNG (Rs/Kg)	PNG (Rs/SCM)	Source
Delhi	79.56	53.59	IGL website (16.02.2023)
Mumbai	87.00	54.00	MGL website (16.02.2023)

Indian Natural Gas Spot Price for Physical Delivery

IGX Price Index Month	Avg. Price		Volume (MMSCM)	Source
	INR/MMBtu	\$/MMBtu		
Jan 2022	1513	18.48	96.59	As per IGX website: www.igxindia.com

*Prices are weighted average prices | \$1=INR 81.89| 1 MMBtu=25.2 SCM



PART-F

Taxes & Duties on Petroleum Products

25. Information on Prices, Taxes and Under-recoveries/Subsidies

International FOB prices/ Exchange rates (\$/bbl)				Price buildup of petroleum products (Rs./litre/Cylinder) *		
Particulars	2020-21	2021-22	Jan 2023	Particulars	Petrol	Diesel
Crude oil (Indian Basket)	44.82	79.18	80.92	Price charged to dealers (excluding Excise Duty and VAT)	57.36	58.17
Petrol	47.68	89.66	95.59	Excise Duty	19.90	15.80
Diesel	47.86	88.45	111.22	Dealers' Commission (Average)	3.75	2.54
Kerosene	43.60	85.31	110.36	VAT (incl VAT on dealers' commission)	15.71	13.11
LPG (\$/MT)	415.17	692.67	599.00	Retail Selling Price	96.72	89.62
FO (\$/MT)	259.30	445.25	349.04			
Naphtha (\$/MT)	378.93	698.25	615.30	Particulars	PDS SKO	Subsidised Domestic LPG
Exchange (Rs./\$)	74.20	74.51	81.90	Price before taxes and dealers'/distributors' commission	68.22	938.01
Customs, excise duty & GST rates				Dealers'/distributors' commission	2.67	64.84
Product	Basic customs duty #	Excise duty	GST rates	GST (incl GST on dealers'/distributors' commission)	3.54	50.15
Petrol	2.50%	Rs 19.90/Ltr	**	Retail Selling Price	74.43	1053.00
Diesel	2.50%	Rs 15.80/Ltr	**			
PDS SKO	5.00%	Not Applicable	5.00%			
Non-PDS SKO	5.00%		18.00%			
Domestic LPG	Nil***		5.00%			
Non Domestic LPG	5.00%		18.00%			
Furnace Oil (Non-Fert)	2.50%		18.00%			
Naphtha (Non-Fert)	2.50%^		18.00%			
ATF	5.00%	11% *	**			
Crude Oil	Rs.1/MT+ Rs.50/-MT as NCCD	Rs.1/MT+ Cess@20% + Rs.50 /-MT NCCD + Rs. 4350/ MT SAED ^^^	**			

*2% for scheduled commuter airlines from regional connectivity scheme airports
 ** GST Council shall recommend the date on which GST shall be levied on petroleum crude , HSD, MS, natural gas and ATF; # Social welfare surcharge @ 10% is levied on aggregate duties of Customs excluding CVD in lieu of IGST.*** Customs duty is Nil for import of Domestic LPG sold to household consumers (including NDEC) by PSU OMCs. Customs duty rate is 5% for other importers of domestic LPG, ^^ effective 02.02.2023 ,^^^ Effective 16.02.2023 SAED on crude

25. Information on Prices, Taxes and Under-recoveries/Subsidies

PDS Kerosene /DBTL Subsidy

PDS Kerosene

Product	2018-19	2019-20	2020-21
	Rs./Crore		
Under recovery	5,950	1,833	0
Subsidy under DBTK #	98	42	0
Total	6,048	1,875	0

#DBTK subsidy excludes cash incentive/ assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs. DBTK subsidy for 2019-20 is till Oct 2019.

Domestic LPG under DBTL (Direct benefit transfer for LPG)

Particulars	2018-19	2019-20	2020-21
	Rs./Crore		
DBTL subsidy	31,447	22,635	3,559
PME & IEC^	92	91	99
Total	31,539	22,726	3,658

^ on payment basis (PME & IEC- Project Management Expenditure & Information Education and Communication)

Sales & profit of petroleum sector (Rs. Crores)

Particulars	2021-22		H1-2022-23 (P)	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	215,625	54,557	167,641	35,760
Downstream Companies (PSU)	15,29,502	39,355	9,68,108	-21,201
Standalone Refineries (PSU)	169,984	7,859	130,942	5,439
Private-RIL	466,425	39,084	304,026	22,011

Borrowings of OMCs (Rs. Crores), As on

Company	Mar`21	Mar`22	Sept`22 (P)
IOCL	102,327	110,799	140,322
BPCL	26,315	24,123	48,237
HPCL	40,009	43,193	68,546

Petroleum sector contribution to Central/State Govt.

Particulars	2020-21	2021-22	H1-2022-23 (P)
Central Government	4,55,069	492,303	197,055
% of total revenue receipts	28%	24%	
State Governments	2,17,650	282,122	160,242
% of total revenue receipts	8%	8%	
Total (Rs. Crores)	6,72,719	7,74,425	357,296

Total Subsidy as a percentage of GDP (at current prices)

Particulars	2018-19	2019-20	2020-21
Petroleum subsidy	0.23	0.13	0.06

Note: GDP figure for 2018-19, 2019-20 and 2020-21 are Revised Estimates.

**Totals may not tally due to roundoff.



PART-G

Miscellaneous

26. Capital expenditure of PSU oil companies

(Rs in crores)

Company	2019-20	2020-21	2021-22 (P)	2022-23 (P)	
				Target (Annual)	April -Jan 23
ONGC Ltd	30,115	26,441	26,621	29,950	22,068
ONGC Videsh Ltd (OVL)	5,363	5,351	4,836	8,180	2,337
Oil India Ltd (OIL)	3,724	12,802	4,239	4,302	3,589
GAIL (India) Ltd	4,381	5,560	6,970	7,500	6,706
Indian Oil Corp. Ltd. (IOCL)	28,316	27,195	29,604	28,549	28,953
Hindustan Petroleum Corp. Ltd (HPCL)	13,773	14,036	16,205	14,500	9,475
Bharat Petroleum Corp. Ltd (BPCL)	10,255	10,697	11,449	10,000	9,672
Mangalore Refinery & Petrochem Ltd (MRPL)	1,318	2,218	604	815	373
Chennai Petroleum Corp. Ltd (CPCL)	969	592	575	584	524
Numaligarh Refinery Ltd (NRL)	536	981	3,403	6,774	4,633
Balmer Lawrie Co. Ltd (BL)	40	42	23	40	36
Engineers India Ltd (EIL)	164.43	730	67	160	45
Total	98,955	106,642	104,596	111,354	88,411

Includes expenditure on investment in JV/subsidiaries.

(P) Provisional

Totals may not tally due to roundoff.

27. Conversion factors and volume conversion

Weight to volume conversion				Volume conversion	
Product	Weight (MT)	Volume (KL)	Barrel (bbl)	From	To
LPG	1	1.844	11.60	1 US Barrel (bbl)	159 litres
Petrol (MS)	1	1.411	8.88	1 US Barrel (bbl)	42 US Gallons
Diesel (HSD)	1	1.210	7.61	1 US Gallon	3.78 litres
Kerosene (SKO)	1	1.285	8.08	1 Kilo litre (KL)	6.29 bbl
Aviation Turbine Fuel (ATF)	1	1.288	8.10	1 Million barrels per day	49.8 MMTPA
Light Diesel Oil (LDO)	1	1.172	7.37	Energy conversion	
Furnace Oil (FO)	1	1.0424	6.74	1 Kilocalorie (kcal)	4.187 kJ
Crude Oil	1	1.170	7.33	1 Kilocalorie (kcal)	3.968 Btu
Exclusive Economic Zone				1 Kilowatt-hour (kWh)	860 kcal
200 Nautical Miles	370.4 Kilometers			1 Kilowatt-hour (kWh)	3,412 Btu

Natural gas conversions			
1 Standard Cubic Metre (SCM)	35.31 Cubic Feet		1 MMBTU
1 Billion Cubic Metres (BCM)/year of Gas	2.74 MMSCMD		25.2 SCM @10000 kcal/SCM
1 Trillion Cubic Feet (TCF) of Gas Reserve	3.88 MMSCMD		GCV (Gross Calorific Value)
1 Million Metric Tonne Per Annum (MMTPA) of LNG	3.60 MMSCMD		10,000 kcal/SCM
1 MT of LNG	1,325 SCM		NCV (Net Calorific Value)
			90% of GCV
			Gas required for 1 MW power generation
			4,541 SCM/day
			Power generation from 1 MMSCMD of gas
			220 MW



Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas, Government of India)

SCOPE Complex, 2nd Floor Core-8, Lodhi Road, New Delhi-110003

Tel.: 011-24306191/92, 011-24361314, Fax : 011-24361253 www.ppac.gov.in