PPAC's Snapshot of India's Oil & Gas data

Abridged Ready Reckoner

Azadi Ka Amrit Mahotsav

September 2022

PPAC

Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

"Credits (Cover Page Photo) : Desalination plant of Mangalore Refinery and Petrochemicals at Mangalore. Dedicated to the nation by Hon'ble Prime Minister of India on 2nd September,2022"

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As on 07.10.2022

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 PPAC's Snapshot of India's Oil & Gas data (Abridged Ready Reckoner) provides a comprehensive compilation of the latest 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.

Note: Reported data may undergo change on receipt of actuals

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Highlights for the month

- The consumption of petroleum products during April-Sept 2022 with a volume of 107.73 MMT reported a growth of 13.4% compared to the volume of 95.0 MMT during the same period of the previous year. This growth was led by 18.5% growth in MS, 16.1% in HSD & 72.1% in ATF consumption during the half year. The consumption of petroleum products during Sept 2022 recorded a growth of 8.1% with a volume of 17.2 MMT compared to the same period of the previous year.
- Indigenous crude oil and condensate production during September 2022 was down by 2.3 % than that of September 2021 as compared to a de-growth of 3.3 % during August 2022. OIL registered a growth of 5.2 % and ONGC registered a growth of 1.0 % during September 2022 as compared to September 2021. PSC registered de-growth of 13.9 % during September 2022 as compared to September 2021. De-growth of 1.3 % was registered in the total crude oil and condensate production during April - September 2022 over the corresponding period of the previous year.
- Total Natural Gas Consumption (including internal consumption) for the month of September 2022 was 5157 MMSCM which was 9.0% lower than the corresponding month of the previous year. The cumulative consumption of 31478 MMSCM for the current year till September 2022 was lower by 4.7 % compared with the corresponding period of the previous year.
- Crude oil processed during September 2022 was 19.5 MMT, which was 7.3 % higher than September 2021 as compared to a growth of 5.9 % during August 2022. Growth of 11.5 % was registered in the total crude oil processing during April-September 2022 over the corresponding period of the previous year.
- Production of petroleum products saw a growth of 6.6 % during September 2022 over September 2021 as compared to a growth of 7.0 % during August 2022. Growth of 9.9 % was registered in the total POL production during April- September 2022 over the corresponding period of the previous year.
- Ethanol blending with Petrol was 9.12% during Sept 2022 and cumulative ethanol blending during December 2021- Sept 2022 was 9.94%.

- Gross production of natural gas for the month of September 2022 was 2852 MMSCM which was lower by 1.7% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 17184 MMSCM for the current financial year till September 2022 was higher by 1.7% compared with the corresponding period of the previous year.
- LNG import for the month of September 2022 (P) was 2365 MMSCM which was 16.3% lower than the corresponding month of the previous year. The cumulative import of 14706 (P) MMSCM for the current year till September 2022 was lower by 11.3% compared with the corresponding period of the previous year.
- Crude oil imports increased by 1% and 15.1% during September 2022 and April- September 2022 respectively as compared to the corresponding period of the previous year. The net import bill for oil & gas was $10.7 billion in September 2022 compared to $9.4 billion in September 2021. In this the crude oil imports constitutes $12.8 billion, LNG imports $1.0 billion and the exports were $5.3 billion during September 2022.
- POL products imports increased by 2.9% and 12% during September 2022 and April- September 2022 respectively as compared to the corresponding period of the previous year. Increase in POL products imports during April- September 2022 were due to increase in imports of all products except Liquified petroleum gas (LPG), Aviation turbine fuel (ATF) and Superior kerosene oil (SKO) etc.
- Exports of POL products increased by 4.5% and increased by 7% during September 2022 and April- September 2022 respectively as compared to the corresponding period of the previous year. Increase in POL products exports during April- September 2022 were due to increase in exports of all products except Naphtha, Superior kerosene oil (SKO), Fuel oil (FO), Bitumen and Vacuum Gas oil (VGO) etc.
- The price of Brent Crude averaged $89.87/bbl during September 2022 as against $99.99/bbl during August 2022 and $74.58/bbl during September 2021. The Indian basket crude price averaged $90.71/bbl during September 2022 as against $97.40/bbl during August 2022 and $73.13 /bbl during September 2021.

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 (Census 2011)	Billion	1.2	-	-	-	-	-
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)	13.5 QE (Q1, 2022-23)
3	Agricultural Production (Food grains)	MMT	285.0	285.2	297.5	310.7	315.7 4th AE	-
		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	6.8 BE	6.4 BE

Economic indicators		**Unit/ Base**	**2020-21**	**2021-22 (P)**	**Sept**		**April-Sept**	
					2021-22	**2022-23 (P)**	**2021-22**	**2022-23 (P)**
5	Index of Industrial Production (Base: 2011-12)	Growth %	-8.4	11.4	13.0*	-0.8* QE	29.0#	7.7#
6	Imports^	$ Billion	394.4	611.9	45.1	61.9	218.2	318.0
7	Exports^	$ Billion	291.8	419.7	33.4	33.9	164.4	193.5
8	Trade Balance	$ Billion	-102.6	-192.2	-11.7	-28.0	-53.8	-124.5
9	Foreign Exchange Reserves @	$ Billion	579.3	617.6	637.5	532.7	-	-

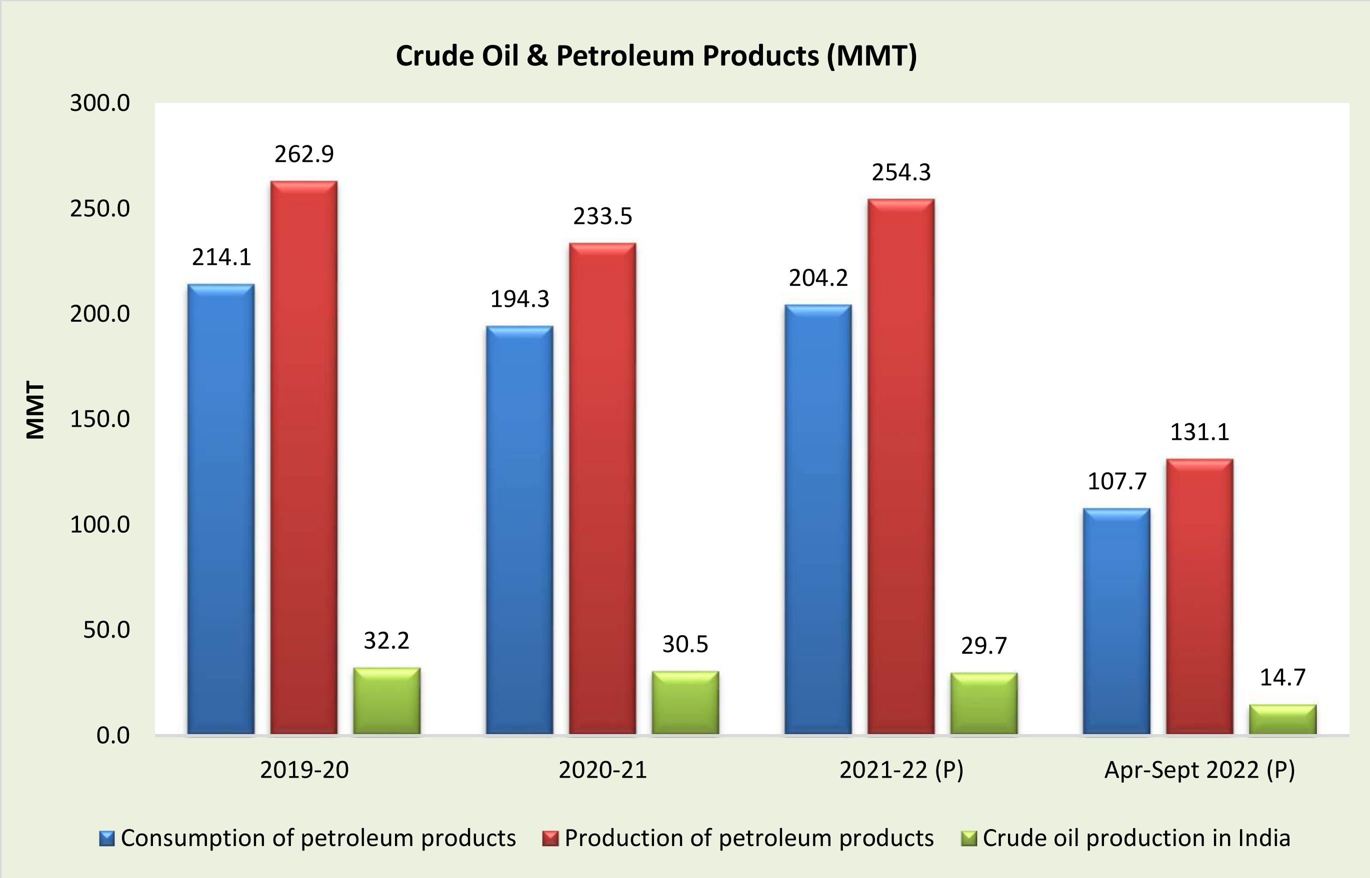
IIP is for the month of *Aug and #April-Aug; @2020-21-as on March 26, 2021, 2021-22 - as on March 26, 2022, Sept 2021 as on Sept 24, 2021 and Sept 2022-as on Sept 30, 2022; ^Imports & Exports are for Merchandise for the month of August 22; E: Estimates; PE: Provisional Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.

Source: 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)	Sept 2021-22 (P)	Sept 2022-23 (P)	April-Sept 2021-22 (P)	April-Sept 2022-23 (P)
1	Crude oil production in India#	MMT	30.5	29.7	2.4	2.4	14.9	14.7
2	Consumption of petroleum products*	MMT	194.3	204.2	15.9	17.2	95.0	107.7
3	Production of petroleum products	MMT	233.5	254.3	19.1	20.3	119.3	131.1
4	Gross natural gas production	MMSCM	28,672	34,024	2,902	2,852	16,891	17,184
5	Natural gas consumption	MMSCM	60,815	63,907	5,667	5,157	33,042	31,478
6	Imports & exports:							
	Crude oil imports	MMT	196.5	212.0	17.5	17.6	101.3	116.6
		$ Billion	62.2	120.4	9.3	12.8	51.4	90.3
	Petroleum products (POL) imports*	MMT	43.2	42.1	3.5	3.6	19.1	21.4
		$ Billion	14.8	25.2	2.1	2.2	10.4	14.4
	Gross petroleum imports (Crude + POL)	MMT	239.7	254.0	21.0	21.3	120.4	138.0
		$ Billion	77.0	145.7	11.3	15.0	61.8	104.7
	Petroleum products (POL) export	MMT	56.8	62.7	4.9	5.2	29.6	31.7
		$ Billion	21.4	44.4	3.2	5.3	17.9	33.9
	LNG imports*	MMSCM	33,031	30,776	2,827	2,365	16,572	14,706
		$ Billion	7.9	13.4	1.3	1.0	5.8	6.6
	Net oil & gas imports	$ Billion	63.5	114.7	9.4	10.7	49.7	77.4
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	19.5	23.8	25.1	24.3	28.3	32.9
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	7.3	10.6	9.5	15.7	10.9	17.5
9	Import dependency of crude oil (on POL consumption basis)	%	84.4	85.7	84.2	86.8	84.8	86.8

#Includes condensate; *Private direct imports are prorated for the period April'22 to Sept'22 for POL & Natural Gas. RIL data prorated for Sept'22. Total may not tally due to rounding off.


Crude Oil & Petroleum Products (MMT)
MMT
300.0
250.0
200.0
150.0
100.0
50.0
0.0
214.1
262.9
32.2
194.3
233.5
30.5
204.2
254.3
29.7
107.7
131.1
14.7
2019-20
2020-21
2021-22 (P)
Apr-Sept 2022 (P)
Consumption of petroleum products
Production of petroleum products
Crude oil production in India

PART-B

Crude Oil, Refining & Production

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2020-21	2021-22 (P)	Sept			April-Sept		
			2021-22 (P)	2022-23 Target*	2022-23 (P)	2021-22 (P)	2022-23 Target*	2022-23 (P)
ONGC	19.1	18.5	1.5	1.6	1.5	9.2	9.6	9.3
Oil India Limited (OIL)	2.9	3.0	0.2	0.3	0.3	1.5	1.7	1.6
Private / Joint Ventures (JVs)	7.1	7.0	0.6	0.8	0.5	3.6	4.2	3.2
Total Crude Oil	**29.1**	**28.4**	**2.3**	**2.7**	**2.3**	**14.3**	**15.5**	**14.1**
ONGC condensate	1.1	0.9	0.08	0.0	0.1	0.5	0.0	0.5
PSC condensate	0.3	0.30	0.03	0.0	0.03	0.16	0.0	0.14
Total condensate	**1.4**	**1.2**	**0.10**	**0.0**	**0.1**	**0.6**	**0.0**	**0.6**
Total (Crude + Condensate) (MMT)	**30.5**	**29.7**	**2.4**	**2.7**	**2.4**	**14.9**	**15.5**	**14.7**
Total (Crude + Condensate) (Million Bbl/Day)	0.61	0.60	0.60	0.65	0.58	0.60	0.62	0.59

*Provisional targets inclusive of condensate.

4. Domestic oil & gas production vis-à-vis overseas production

Details	2020-21	2021-22 (P)	Sept		April-Sept	
			2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
Total domestic production (MMTOE)	59.2	63.7	5.3	5.2	31.8	31.9
Overseas production (MMTOE)	21.9	21.8	1.8	1.6	11.0	9.7
Overseas production as percentage of domestic production	**37.0%**	**34.2%**	**33.5%**	**29.6%**	**34.6%**	**30.3%**

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

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

	Details	2020-21	2021-22 (P)	Sept		April-Sept	
				2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
1	High Sulphur crude	161.4	185.0	13.9	15.0	85.2	98.3
2	Low Sulphur crude	60.3	56.7	4.4	4.5	28.1	28.1
Total crude processed (MMT)		**221.8**	**241.7**	**18.2**	**19.5**	**113.3**	**126.3**
Total crude processed (Million Bbl/Day)		4.45	4.85	4.45	4.78	4.54	5.06
Percentage share of HS crude in total crude oil processing		**72.8%**	**76.6%**	**76.0%**	**76.8%**	**75.2%**	**77.8%**

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)	212.0	120,445	8,99,312
April-Sept 2022(P)	116.6	90,335	7,07,797

7. Self-sufficiency in petroleum products (Million Metric Tonnes)

Particulars		2020-21	2021-22 (P)	Sept		April-Sept	
				2021-22 (P)	2022-23 (P)	2021-22 (P)	2022-23 (P)
1	Indigenous crude oil processing	28.0	27.0	2.3	2.1	13.3	13.6
2	Products from indigenous crude (93.3% of crude oil processed)	26.1	25.2	2.2	2.0	12.4	12.7
3	Products from fractionators (Including LPG and Gas)	4.2	4.1	0.3	0.3	2.1	1.5
4	Total production from indigenous crude & condensate **(2 + 3)**	30.3	29.3	2.5	2.3	14.5	14.2
5	Total domestic consumption	194.3	204.2	15.9	17.2	95.0	107.7
% Self-sufficiency (4 / 5)		**15.6%**	**14.3%**	**15.8%**	**13.2%**	**15.2%**	**13.2%**

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 (P)	Sept			April-Sept		
					2021-22 (P)	2022-23 (Target)	2022-23 (P)	2021-22 (P)	2022-23 (Target)	2022-23 (P)
1	Barauni (1964)	6.0	5.5	5.6	0.1	0.5	0.5	2.4	3.1	3.4
2	Koyali (1965)	13.7	11.6	13.5	1.0	1.2	1.3	6.3	7.0	7.8
3	Haldia (1975)	8.0	6.8	7.3	0.6	0.7	0.7	3.9	4.2	4.2
4	Mathura (1982)	8.0	8.9	9.1	0.7	0.7	0.8	4.2	4.5	4.6
5	Panipat (1998)	15.0	13.2	14.8	1.1	0.6	1.2	7.3	6.8	7.2
6	Guwahati (1962)	1.0	0.8	0.7	0.08	0.1	0.1	0.20	0.5	0.5
7	Digboi (1901)	0.65	0.6	0.7	0.06	0.06	0.04	0.4	0.3	0.3
8	Bongaigaon(1979)	2.70	2.5	2.6	0.2	0.2	0.2	1.4	1.2	1.3
9	Paradip (2016)	15.0	12.5	13.2	0.8	1.3	0.275	6.0	5.9	5.6
	IOCL-TOTAL	**70.1**	**62.4**	**67.7**	**4.7**	**5.4**	**5.1**	**32.0**	**33.5**	**35.0**
10	Manali (1969)	10.5	8.2	9.0	0.5	0.6	1.0	4.0	4.8	5.8
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**	**0.5**	**0.6**	**1.0**	**4.0**	**4.8**	**5.8**
12	Mumbai (1955)	12.0	12.9	14.4	1.0	1.2	1.3	6.9	6.6	6.6
13	Kochi (1966)	15.5	13.3	15.4	1.3	0.9	1.2	6.8	7.7	8.1
14	Bina (2011)	7.8	6.2	7.4	0.6	0.3	0.7	3.4	3.6	3.7
	BPCL-TOTAL	**35.3**	**32.4**	**37.2**	**2.9**	**2.4**	**3.1**	**17.1**	**18.0**	**18.4**
15	Numaligarh (1999)	3.0	2.7	2.6	0.2	0.2	0.2	1.3	1.4	1.6

Sl. no.	Refinery	Installed capacity (1.01.2022) (MMTPA)	Crude oil processing (MMT)							
			2020-21	2021-22 (P)	Sept			April-Sept		
					2021-22 (P)	2022-23 (Target)	2022-23 (P)	2021-22 (P)	2022-23 (Target)	2022-23 (P)
16	Tatipaka (2001)	0.066	0.081	0.075	0.007	0.005	0.007	0.036	0.030	0.035
17	MRPL-Mangalore (1996)	15.0	11.5	14.9	1.0	1.2	1.3	6.2	7.5	8.3
	ONGC-TOTAL	**15.1**	**11.6**	**14.9**	**1.0**	**1.2**	**1.3**	**6.2**	**7.5**	**8.3**
18	Mumbai (1954)	9.5	7.4	5.6	0.4	0.7	0.8	1.5	4.5	4.9
19	Visakh (1957)	8.3	9.1	8.4	0.5	0.8	0.8	3.5	4.4	4.4
20	HMEL-Bathinda (2012)	11.3	10.1	13.0	1.1	0.9	0.9	6.5	5.8	6.3
	HPCL- TOTAL	**29.1**	**26.5**	**27.0**	**2.0**	**2.4**	**2.5**	**11.6**	**14.6**	**15.6**
21	RIL-Jamnagar (DTA) (1999)	33.0	34.1	34.8	2.8	2.8	2.8	16.8	16.8	17.9
22	RIL-Jamnagar (SEZ) (2008)	35.2	26.8	28.3	2.4	2.4	1.8	14.3	14.3	13.6
23	NEL-Vadinar (2006)	20.0	17.1	20.2	1.7	1.7	1.7	10.0	10.0	10.2
All India (MMT)		**251.2**	**221.8**	**241.7**	**18.2**	**19.0**	**19.5**	**113.3**	**121.0**	**126.3**
All India (Million Bbl/Day)		**5.02**	**4.45**	**4.85**	**4.45**	**4.65**	**4.78**	**4.54**	**4.85**	**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 01.10.2022)

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			9,661	2,596	3,775	2,386	**19,072**
	Cap (MMTPA)		1.7			49.0	23.0	34.1	9.4	**117.2**

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

OIL & GAS MAP OF INDIA

LEGENDS

Refineries

Refineries (Capacity in MMTPA)

Producing Fields

Major Producing Fields

LNG Terminals

Dabhol, Dahej, Hazira, Kochi, Mundra, Ennore

(Upcoming Terminals) Dhamra, Jafrabad, Jaigarh, Chhara

LEGENDS

Pipelines Network

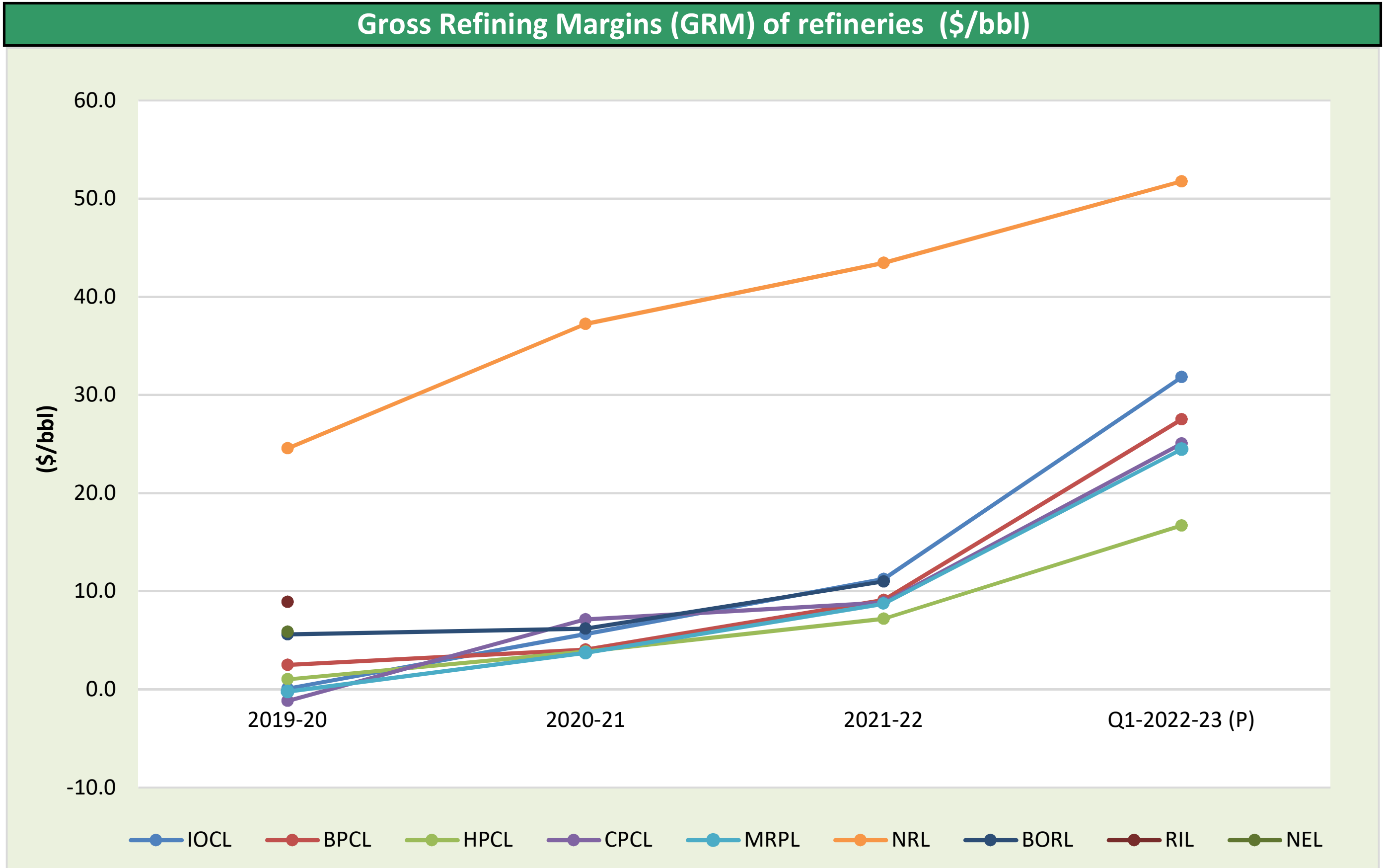
- Crude Oil Pipeline
- Ongoing Crude Oil Pipeline
- Product Pipeline
- Ongoing Product Pipeline
- LPG Pipeline
- Ongoing LPG Pipeline
- Gas Pipeline
- Ongoing Gas Pipeline

10. Gross Refining Margins (GRM) of refineries ($/bbl)				
Company	**2019-20**	**2020-21**	**2021-22**	**Q1-2022-23 (P)**
IOCL	0.08	5.64	11.25	31.81
BPCL	2.50	4.06	9.09	27.51
HPCL	1.02	3.86	7.19	16.69
CPCL	-1.18	7.14	8.85	25.04
MRPL	-0.23	3.71	8.72	24.45
NRL	24.55	37.23	43.46	51.76
BORL	5.60	6.20	11.00	#
RIL	8.90	*	*	*
NEL	5.88	*	*	*

GRM of North Eastern refineries are including excise duty benefit

BPCL figures effective 2022-23 (Q1) includes BORL also after its merger with BPCL

*Not available



GRM of North Eastern refineries are including excise duty benefit

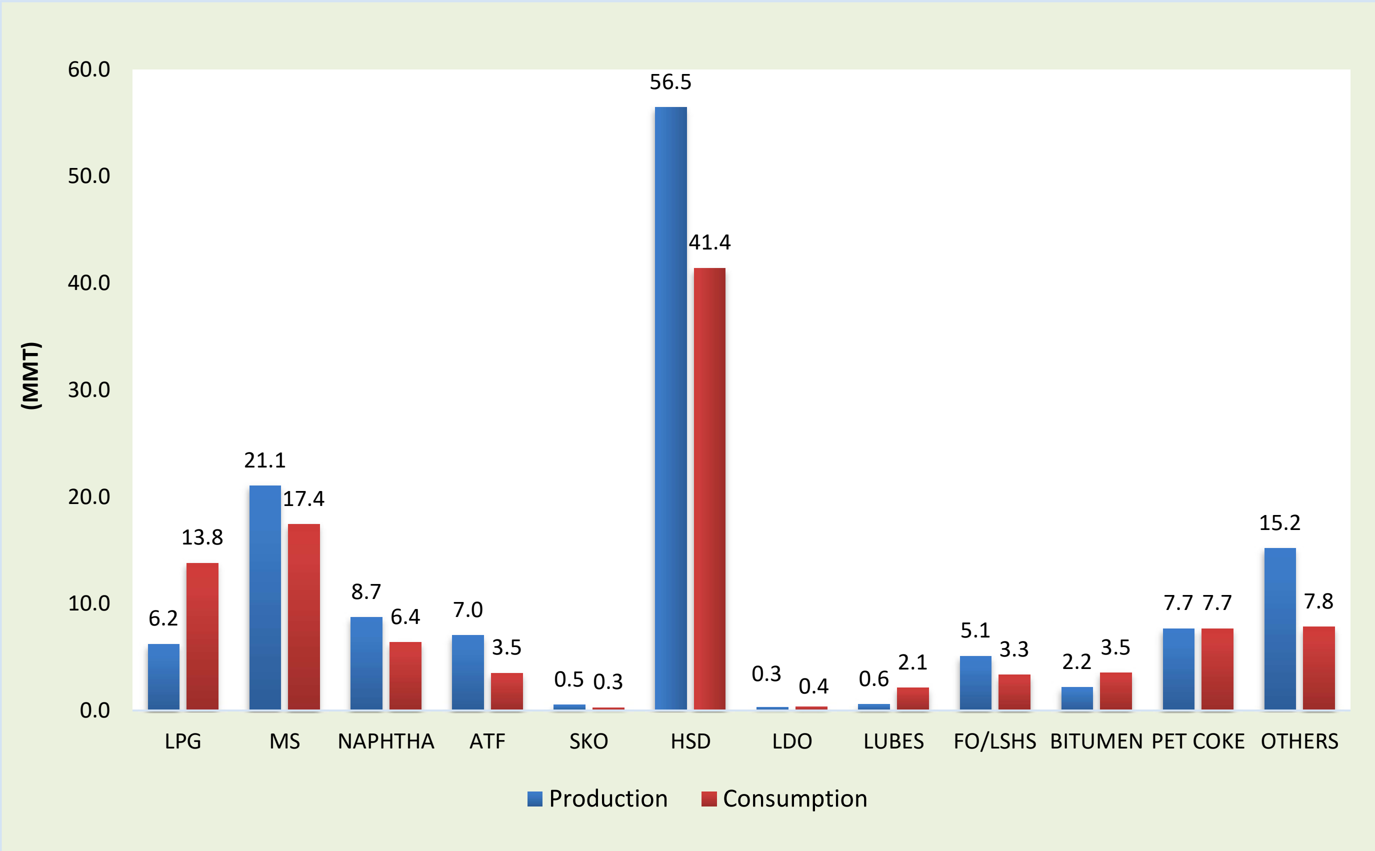
PART-C

Consumption

11. Production and consumption of petroleum products (Million Metric Tonnes)												
Products	**2020-21**		**2021-22 (P)**		**Sept 2021**		**Sept 2022 (P)**		**Apr-Sept 2021**		**Apr-Sept 2022 (P)**	
	Prod	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**	**Prod**	**Cons**
LPG	12.1	27.6	12.2	28.3	0.9	2.4	1.0	2.4	5.7	13.6	6.2	13.8
MS	35.8	28.0	40.2	30.8	3.1	2.6	3.1	2.8	18.5	14.7	21.1	17.4
NAPHTHA	19.4	14.1	20.0	14.3	1.6	1.1	1.4	1.1	9.8	7.0	8.7	6.4
ATF	7.1	3.7	10.3	5.0	0.7	0.4	1.3	0.6	4.2	2.0	7.0	3.5
SKO	2.4	1.8	1.9	1.5	0.2	0.1	0.1	0.0	0.9	0.8	0.5	0.3
HSD	100.4	72.7	107.2	76.7	7.8	5.5	8.8	6.3	50.5	35.7	56.5	41.4
LDO	0.7	0.9	0.8	1.0	0.04	0.09	0.05	0.06	0.4	0.5	0.3	0.4
LUBES	1.1	4.1	1.2	4.6	0.1	0.4	0.1	0.4	0.5	2.1	0.6	2.1
FO/LSHS	7.4	5.6	8.9	6.3	0.8	0.5	0.7	0.6	4.2	3.0	5.1	3.3
BITUMEN	4.9	7.5	5.1	7.9	0.2	0.4	0.3	0.5	2.1	3.2	2.2	3.5
PET COKE	12.0	15.6	15.5	15.8	1.2	1.0	1.2	1.3	7.1	6.5	7.7	7.7
OTHERS	30.2	12.8	30.9	12.1	2.5	1.3	2.3	1.1	15.3	6.0	15.2	7.8
ALL INDIA	**233.5**	**194.3**	**254.3**	**204.2**	**19.1**	**15.9**	**20.3**	**17.2**	**119.3**	**95.0**	**131.1**	**107.7**
Growth (%)	**-11.0%**	**-8.9%**	**8.9%**	**5.1%**	**6.0%**	**5.0%**	**6.6%**	**8.1%**	**11.2%**	**10.6%**	**9.9%**	**13.4%**

Note: Prod - Production; Cons - Consumption

Petroleum Products: April-Sept 2022 (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	7,45,224	2,44,265

* Allocation is for Q1 & Q2, 2022-23 and upliftment is for Apr-Sept 2022

13. Ethanol blending programme

Particulars	Ethanol Supply Year *				
	2018-19	2019-20	2020-21	2021-22 (P)	
				Sept-22	Dec'21-Sept'22
Ethanol received by PSU OMCs under EBP Program (in Cr. Litrs)	188.6	173.0	296.1	26.7	357.2
Ethanol blended under EBP Program (in Cr. Litrs)	191.2	170.5	302.3	34.0	363.0
Average Percentage of Blending Sales (EBP%)	5.0%	5.0%	8.1%	9.1%	9.9%

***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 01.10.2022) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL/RBML/RSIL	NEL	SHELL	Others	Total
POL Terminal/ Depots **(Nos.)**$	120	82	81	18	3		6	**310**
Aviation Fuel Stations **(Nos.)**@	128	61	52	30			2	**273**
Retail Outlets (total) **(Nos.),**^	35,135	20,442	20,503	1,486	6,674	335	39	**84,614**
out of which Rural ROs	11,296	5,005	5,181	130	2,180	84	13	**23,889**
SKO/LDO agencies **(Nos.)**	3,871	927	1,638					**6,436**
LPG Distributors (total) **(Nos.) (PSUs only)**	12,838	6,231	6,257					**25,326**
LPG Bottling plants **(Nos.) (PSUs only)**#	95	54	53				3	**205**
LPG Bottling capacity **(TMTPA) (PSUs only)**&	10,598	4,890	6,170				203	**21,861**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	14.6	8.1	8.6					**31.2**

$(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 01.10.2022) (Provisional)

Alternate fuel	PSU	Private	Total
CNG_LNG	4013	37	4050
EV Charging	4075	27	4102
Auto LPG	570	127	697
Compressed Bio-Gas outlets	67	0	67
Total Retail outlets with at least one Alternate fuel	8725	191	8916

PART-D

LPG

15. LPG consumption (Thousand Metric Tonne)

LPG category	2020-21	2021-22	Sept			April-Sept		
			2021-22	2022-23 (P)	Growth (%)	2021-22	2022-23 (P)	Growth (%)
1. PSU Sales :								
LPG-Packed Domestic	25,128.1	25,501.6	2,110.6	2,167.7	2.7%	12,308.2	12,392.0	0.7%
LPG-Packed Non-Domestic	1,886.0	2,238.8	204.0	232.0	13.7%	994.9	1,147.9	15.4%
LPG-Bulk	361.9	390.9	29.6	32.2	8.8%	179.3	179.0	-0.2%
Auto LPG	118.4	122.0	11.6	8.8	-23.7%	56.8	55.2	-2.7%
Sub-Total (PSU Sales)	27,494.3	28,253.3	**2,355.8**	**2,440.8**	**3.6%**	**13,539.2**	**13,774.1**	**1.7%**
2. Direct Private Imports*	64.2	82.0	6.85	6.4	-7.2%	43.9	38.2	-13.0%
Total (1+2)	27,558.4	28,335.3	**2,362.6**	**2,447.2**	**3.6%**	**13,583.1**	**13,812.3**	**1.7%**

*Apr -Sept 2022 DGCIS data is prorated

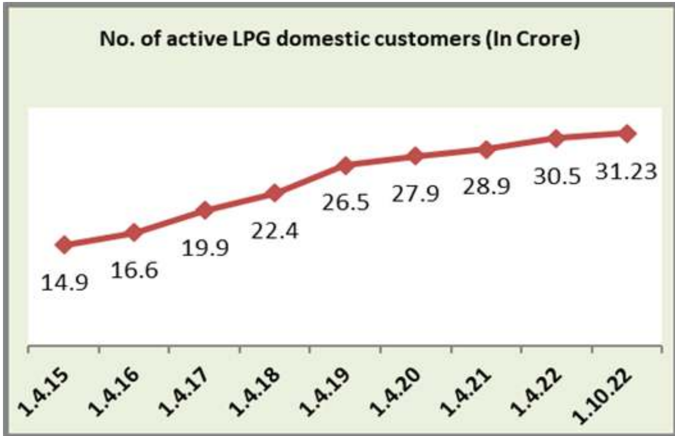
16. LPG marketing at a glance

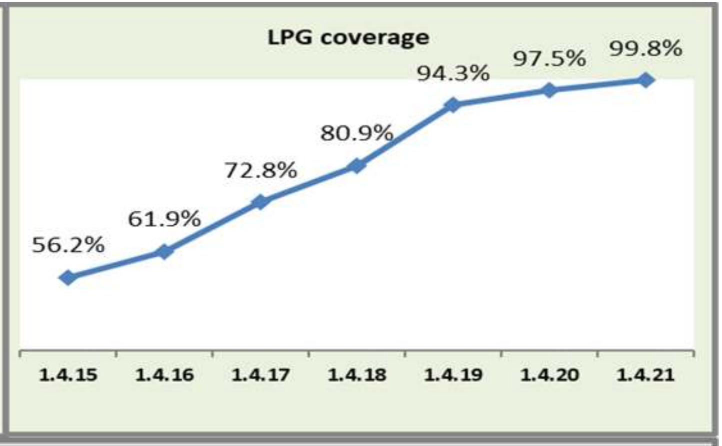
Particulars (As on 1st of April)	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	1.10.22 (P)
LPG Active Domestic Customers	(Lakh)					1486	1663	1988	2243	2654	2787	2895	3053	3123
	Growth						11.9%	19.6%	12.8%	18.3%	5.0%	3.9%	5.5%	5.6%
LPG Coverage (Estimated)	(Percent)					56.2	61.9	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	953.9
	Growth								77.7%	101.9%	11.5%	-0.2%	12.2%	19.0%
LPG Distributors	(No.)	10541	11489	12610	13896	15930	17916	18786	20146	23737	24670	25083	25269	25326
	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%	0.7%
Auto LPG Dispensing Stations	(No.)	604	652	667	678	681	676	675	672	661	657	651	601	570
	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%	-13.2%
Bottling Plants	(No.)	183	184	185	187	187	188	189	190	192	196	200	202	205
	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%	3.0%

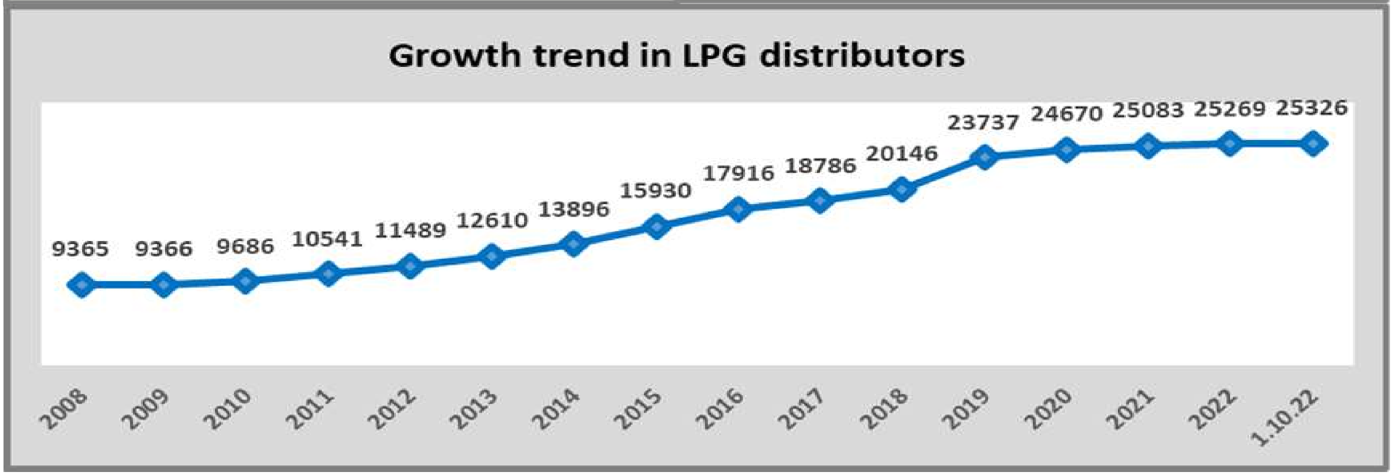
Source: PSU OMCs (IOCL,BPCL and HPCL)

1.Growth rates as on 01.10.2022 are with respect to figs as on 01.10.2021. 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.

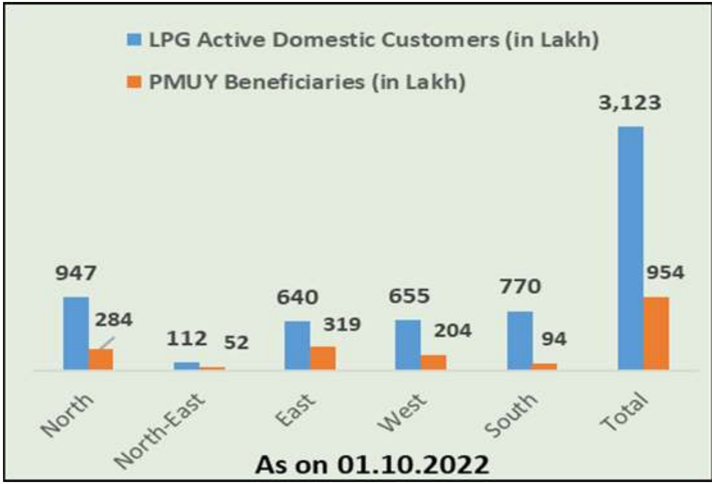

No. of active LPG domestic customers (In Crore)
14.9
16.6
19.9
22.4
26.5
27.9
28.9
30.5
31.23
1.4.15
1.4.16
1.4.17
1.4.18
1.4.19
1.4.20
1.4.21
1.4.22
1.10.22

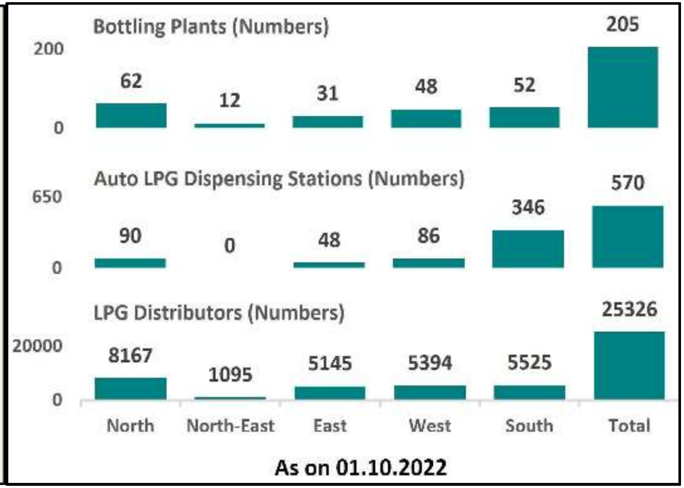

LPG coverage
56.2%
61.9%
72.8%
80.9%
94.3%
97.5%
99.8%
1.4.15
1.4.16
1.4.17
1.4.18
1.4.19
1.4.20
1.4.21


Growth trend in LPG distributors
9365
9366
9686
10541
11489
12610
13896
15930
17916
18786
20146
23737
24670
25083
25269
25326
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
1.10.22

17-Region-wise data on LPG marketing (As on 01.10.2022)						
Particulars	**North**	**North-East**	**East**	**West**	**South**	**Total**
LPG Active Domestic Customers (in Lakh)	946.9	112.2	639.6	655.1	769.5	3123.3
PMUY Beneficiaries (in Lakh)	284.4	52.0	319.3	203.9	94.4	953.9
LPG Distributors (Numbers)	8167	1095	5145	5394	5525	25326
Auto LPG Dispensing Stations (Numbers)	90	0	48	86	346	570
Bottling Plants* (Numbers)	62	12	31	48	52	205

*Includes Numaligarh BP, Duliajan BP and CPCL BP.





PART-E

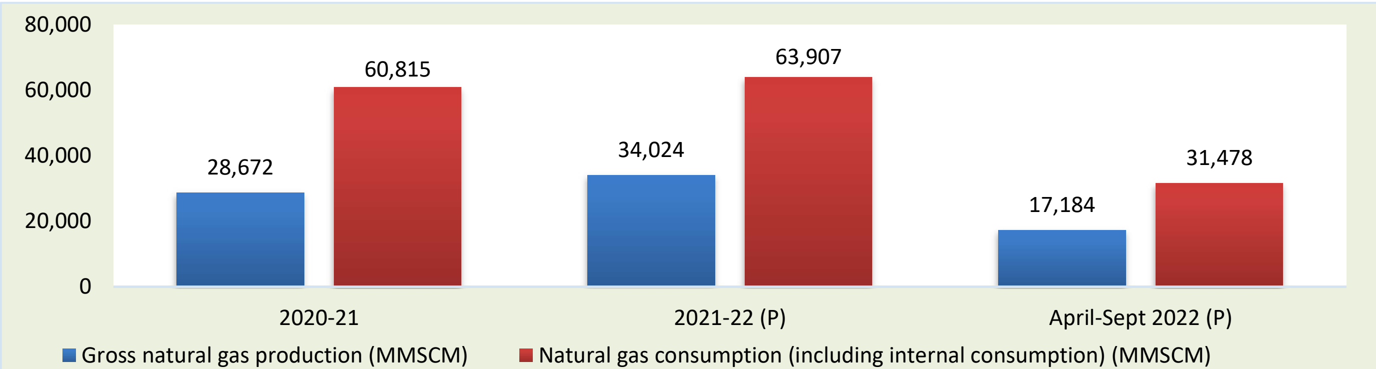
Natural Gas

18. Natural gas at a glance

(MMSCM)

Details	2020-21 (P)	2021-22 (P)	Sept			April-Sept		
			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	2,902	2,953	2,852	16,891	17,700	17,184
- ONGC	21,872	20,629	1,730	1,702	1,665	10,256	10,173	10,076
- Oil India Limited (OIL)	2,480	2,893	254	306	256	1,434	1,863	1,527
- Private / Joint Ventures (JVs)	4,321	10,502	918	945	931	5,200	5,664	5,582
(b) Net production (excluding flare gas and loss)	27,784	33,131	2,840		2,791	16,470		16,772
(c) LNG import#	33,031	30,776	2,827		2,365	16,572		14,706
(d) Total consumption including internal consumption (b+c)	60,815	63,907	5,667		5,157	33,042		31,478
(e) Total consumption **(in BCM)**	60.8	63.9	5.7		5.2	33.0		31.5
(f) Import dependency based on consumption (%), {c/d*100}	54.3	48.2	49.9		45.9	50.2		46.7

April - Sept 2022 DGCIS data prorated.



19. Coal Bed Methane (CBM) gas development in India (Sept 2022)

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		17886	Sq. KM
Area awarded		20460	Sq. KM
Blocks awarded*		36	Nos.
Exploration initiated (Area considered if any boreholes were drilled in the awarded block)		10667***	Sq. KM
Production of CBM gas	April-Sept 2022 (P)	342.71	MMSCM
Production of CBM gas	Sept 2022 (P)	56.19	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.

20. Common Carrier Natural Gas pipeline network as on 30.06.2022

Nature of pipeline		GAIL	GSPL	PIL	IOCL	AGCL	RGPL	GGL	DFPCL	ONGC	GIGL	GITL	Others*	Total
Operational	Length	9,602	2,695	1,459	143	107	304	73	42	24				**14,449**
	Capacity	167.2	43.0	85.0	20.0	2.4	3.5	5.1	0.7	6.0				**333**
Partially commissioned#	Length	4,519			166						1,131	365		**6,180**
	Capacity				-						-	-		**-**
Total operational length		**14,121**	**2,695**	**1,459**	**309**	**107**	**304**	**73**	**42**	**24**	**1,131**	**365**	**0**	**20,629**
Under construction	Length	5,404	100		1,265						1,201	1,666	3,550	**13,186**
	Capacity	-	3.0		-						-	-	149.0	**-**
Total length		**19,524**	**2,795**	**1,459**	**1,574**	**107**	**304**	**73**	**42**	**24**	**2,332**	**2,031**	**3,550**	**33,815**

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 & STPL is 35208 Kms (P)

21. Existing LNG terminals

Location	Promoters	Capacity as on 01.10.2022	% Capacity utilisation (April-Aug 2022)
Dahej	Petronet LNG Ltd (PLL)	17.5 MMTPA	86.6
Hazira	Shell Energy India Pvt. Ltd.	5.2 MMTPA	48.3
Dabhol	Konkan LNG Limited	*5 MMTPA	19.2
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	17.0
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	12.0
Mundra	GSPC LNG Limited	5 MMTPA	17.8
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 31.08.2022(P)

State/UT (State/UTs are clubbed based on the GAs authorised by PNGRB)	CNG Stations	PNG connections		
		Domestic	Commercial	Industrial
Andhra Pradesh	141	238,220	388	29
Andhra Pradesh, Karnataka & Tamil Nadu	26	12	0	2
Assam	1	45,467	1,299	434
Bihar	62	80,737	48	2
Bihar & Jharkhand	1	5,347	0	0
Chandigarh (UT), Haryana, Punjab & Himachal Pradesh	23	23,965	104	18
Dadra & Nagar Haveli (UT)	7	9,659	53	52
Daman & Diu (UT)	4	5,087	44	40
Daman and Diu & Gujarat	13	904	3	0
Goa	10	10,178	15	24
Gujarat	958	2,787,163	21,658	5,719
Haryana	276	274,706	733	1,278
Haryana & Himachal Pradesh	9	0	0	0
Haryana & Punjab	16	0	0	0
Himachal Pradesh	7	2,959	0	0
Jharkhand	56	89,631	2	0
Karnataka	219	352,155	460	261
Kerala	90	18,053	16	13
Kerala & Puducherry	9	0	0	0
Madhya Pradesh	184	167,012	278	380
Madhya Pradesh and Chhattisgrah	3	0	0	0
Madhya Pradesh and Rajasthan	21	119	0	0
Madhya Pradesh and Uttar Pradesh	15	0	0	0
Maharashtra	591	2,455,908	4,526	764
Maharashtra & Gujarat	48	130,542	2	11
National Capital Territory of Delhi (UT)	460	1,306,291	3,274	1,749
Odisha	41	71,920	4	0
Puducherry & Tamil Nadu	7	33	0	0
Punjab	165	43,951	201	199
Rajasthan	184	168,818	50	187
Tamil Nadu	139	1	0	5
Telangana	123	172,876	71	89
Tripura	18	56,428	506	62
Uttar Pradesh	660	1,239,301	1,970	2,331
Uttar Pradesh & Rajasthan	36	18,958	34	340
Uttar Pradesh and Uttrakhand	16	6,263	0	0
Uttrakhand	29	63,547	46	72
West Bengal	41	0	0	0
Total	**4,709**	**9,846,211**	**35,785**	**14,061**

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	78.61	53.59	IGL website (12.10.2022)
Mumbai	86.00	52.50	MGL website (12.10.2022)

Indian Natural Gas Spot Price for Physical Delivery

IGX Price Index Month	Avg. Price		Volume (MMSCM)	Source
	INR/MMBtu	$/MMBtu		
Sept 2022	2682	33.43	24.68	As per IGX website: www.igxindia.com

*Prices are weighted average prices | $1=INR 80.23 | 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)

Particulars	2020-21	2021-22	Sept 2022
Crude oil (Indian Basket)	44.82	79.18	90.71
Petrol	47.68	89.66	93.78
Diesel	47.86	88.45	123.36
Kerosene	43.60	85.31	115.41
LPG ($/MT)	415.17	692.67	638.00
FO ($/MT)	259.30	445.25	389.43
Naphtha ($/MT)	378.93	698.25	581.45
Exchange (Rs./$)	74.20	74.51	80.23

Customs, excise duty & GST rates

Product	Basic customs duty #	Excise duty	GST rates
Petrol	2.50%	Rs 19.90/Ltr	**
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)	1.00%		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. 8000/ 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 02.10.2022 SAED on crude oil.

Price buildup of petroleum products (Rs./litre/Cylinder) *

Particulars	Petrol	Diesel
Price charged to dealers (excluding Excise Duty and VAT)	57.35	58.16
Excise Duty	19.90	15.80
Dealers' Commission (Average)	3.76	2.55
VAT (incl VAT on dealers' commission)	15.71	13.11
Retail Selling Price	**96.72**	**89.62**

Particulars	PDS SKO	Subsidised Domestic LPG
Price before taxes and dealers'/distributors' commission	70.69	938.01
Dealers'/distributors' commission	2.67	64.84
GST (incl GST on dealers'/distributors' commission)	3.67	50.15
Retail Selling Price	**77.03**	**1053.00**

*Petrol and Diesel at Delhi as per IOCL are as on 01st October 2022. PDS SKO at Mumbai as on 1st October 2022 and Subsidised Domestic LPG at Delhi as on 1st October 2022.

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 mechanisam 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		Q1-2022-23 (P)	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	215,625	54,557	85,453	19,677
Downstream Companies (PSU)	15,29,502	39,355	5,09,823	-18,480
Standalone Refineries (PSU)	169,984	7,859	72,077	6,473
Private-RIL	466,425	39,084	157,716	15,096

Borrowings of OMCs (Rs. Crores), As on

Company	Mar\`21	Mar'22	June\`22 (P)
IOCL	102,327	110,799	108,900
BPCL	26,315	24,123	32,284
HPCL	40,009	43,193	47,283

Petroleum sector contribution to Central/State Govt.

Particulars	2020-21	2021-22	Q1-2022-23 (P)
Central Government	4,55,069	492,303	85,157
% of total revenue receipts	28%	24%	
State Governments	2,17,650	282,122	79,914
% of total revenue receipts	8%	8%	
Total (Rs. Crores)	**6,72,719**	**7,74,425**	**165,071**

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 -Sept 22**
ONGC Ltd	30,115	26,441	26,621	29,950	11,756
ONGC Videsh Ltd (OVL)	5,363	5,351	4,836	8,180	1,305
Oil India Ltd (OIL)	3,724	12,802	4,239	4,302	1,967
GAIL (India) Ltd	4,381	5,560	6,970	7,500	3,893
Indian Oil Corp. Ltd. (IOCL)	28,316	27,195	29,604	28,549	13,640
Hindustan Petroleum Corp. Ltd (HPCL)	13,773	14,036	16,205	14,500	6,036
Bharat Petroleum Corp. Ltd (BPCL)	10,255	10,697	11,449	10,000	6,715
Mangalore Refinery & Petrochem Ltd (MRPL)	1,318	2,218	604	815	194
Chennai Petroleum Corp. Ltd (CPCL)	969	592	575	584	277
Numaligarh Refinery Ltd (NRL)	536	981	3,403	6,774	2,597
Balmer Lawrie Co. Ltd (BL)	40	42	23	40	9
Engineers India Ltd (EIL)	164.43	730	67	160	21
Total	**98,955**	**106,642**	**104,596**	**111,354**	**48,409**

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

Product	Weight (MT)	Volume (KL)	Barrel (bbl)
LPG	1	1.844	11.60
Petrol (MS)	1	1.411	8.88
Diesel (HSD)	1	1.210	7.61
Kerosene (SKO)	1	1.285	8.08
Aviation Turbine Fuel (ATF)	1	1.288	8.10
Light Diesel Oil (LDO)	1	1.172	7.37
Furnace Oil (FO)	1	1.0424	6.74
Crude Oil	1	1.170	7.33

Exclusive Economic Zone

200 Nautical Miles	370.4 Kilometers

Volume conversion

From	To
1 US Barrel (bbl)	159 litres
1 US Barrel (bbl)	42 US Gallons
1 US Gallon	3.78 litres
1 Kilo litre (KL)	6.29 bbl
1 Million barrels per day	49.8 MMTPA

Energy conversion

1 Kilocalorie (kcal)	4.187 kJ
1 Kilocalorie (kcal)	3.968 Btu
1 Kilowatt-hour (kWh)	860 kcal
1 Kilowatt-hour (kWh)	3,412 Btu

Natural gas conversions

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

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