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

Abridged Ready Reckoner

March, 2020

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

As on 11.05.2020

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Highlights for the month

- Due to spread of COVID-19 and subsequent nationwide lockdown, as a containment measure, during March 2020 the consumption of major petroleum products were adversely affected resulting a drop in consumption. The products registerd a drop during March 2020 compared to the same period last year were Petrol (MS) (-16.4%), Diesel (HSD) (-24.2%), Aviation Turbine Fuel (ATF) (-32.4%), Petcoke (-22.2%), Bitumen (-41%), Lubes & greases (-34.9%), Furnace Oil/Low Sulphur Heavy Stock (FO/LSHS) (-10.3%) and products categorised under 'others' category (-5.7%) whereas products registered a growth were LPG (1.9%), Naphtha (15.7%) and LDO (5.2%). Cumulatively for the period FY 2019-20, the petroleum products registered a drop compared to the same period last year were ATF (-3.6%), HSD (-1.1%), FO/LSHS (-7.2%), Bitumen (-4.9%), Lubes & greases (-0.8%) and products categorised under 'others' category (-1.6%) whereas products registered a growth were LPG (5.9%), MS (6%), Naphtha (2.2%), LDO (5%) and Petcoke (1.5%).
- Overall petroleum product consumption registered a drop of 17.8% during March 2020 as compared to the same period last year. Except for LPG, naphtha and LDO all other products registered a drop during March 2020. A growth of 0.2% was recorded in consumption for the period FY 2019-20 as compared to same period last year. While LPG, naphtha, MS, LDO and petcoke recorded a growth, all other products recorded a drop during the period FY 2019-20.
- SKO consumption registered a drop of 47.9% during March 2020 and a cumulative drop of 30.7% during FY 2019-20 as compared to the same period last year. This was mainly because of reduced PDS SKO allocations to the states and voluntary surrender of the allocation by some of the states. As of March 2020, states of Punjab, Haryana, Andhra Pradesh and all the UTs except UT of Jammu & Kashmir and UT of Ladakh have become kerosene (PDS) free.
- Total natural gas consumption (including internal consumption) for the month of March, 2020 was 5191 MMSCM which was 1.3% higher than the corresponding month of the previous year. The cumulative consumption of 63932 MMSCM for the period FY 2019-20 was higher by 5.2% compared with the corresponding period of the previous year.
- Indigenous crude oil and condensate production during March 2020 was lower by 5.5% than that of March 2019 as compared to a de-growth of 6.4% during February 2020. ONGC registered growth of 0.6% during March 2020 as compared to March 2019. OIL and PSC fields registered a de-growth of 8.6% and 17.7% respectively during March 2020 as compared to March 2019. On cumulative basis indigenous crude oil and condensate production of the country was lower by 5.9% during 2019-20 as compared to 2018-19.

•	Crude oil processed during March 2020 was 21.2 MMT, which was 5.7% lower than March 2019 as compared to a growth of 5.2% during February 2020. On cumulative basis total crude oil processed was lower by 1.1% during 2019-20 as compared to 2018-19.
•	Production of petroleum products saw a de-growth of 0.5% during March 2020 over March 2019 as compared to a growth of 7.4% during February 2020. On cumulative basis production of petroleum products saw a growth of 0.2% during 2019-20 as compared to 2018-19.
•	Gross production of natural gas for the month of March 2020 at 2411 MMSCM, was lower by 14.4% as compared to March 2019. The cumulative gross production of natural gas of 31180 MMSCM for the period FY 2019-20 was lower by 5.2% compared with the corresponding period of the previous year.
•	Crude oil imports increased by 1.8% and 0.2% during March 2020 and 2019-20 respectively as compared to the corresponding period of the previous year.
•	POL products imports increased by 7.1% and 29.9% during March 2020 and 2019-20 respectively as compared to the corresponding period of the previous year. Increase in POL products imports during 2019-20 was due to increase in imports of all products except naphtha and aviation turbine fuel (ATF).
•	LNG import for the month of March 2020 at 2868 MMSCM, was 20.4% higher than the corresponding month of the previous year. The cumulative import of 33680 MMSCM for the period FY 2019-20 was higher by 17.2% compared with the corresponding periods of the previous year.
•	Exports of POL products increased by 7.4% and 7.5% during March 2020 and 2019-20 respectively as compared to the corresponding period of the previous year. Increase in POL products exports during 2019 - 20 was mainly due to increase in exports of naphtha and high-speed diesel (HSD).
•	The price of Brent Crude averaged $31.83/bbl during March, 2020 as against $55.44/bbl during February 2020 and $66.12/bbl during March 2019. The Indian basket crude price averaged $33.36/bbl during March 2020 as against $54.63/bbl during February 2020 and $66.74 /bbl during March 2019.

Part A: Economic Indicators

1. Selected indicators of the Indian economy								
	Economic indicators	**Unit/ Base**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
1	Population (as on 1st May, 2011)	Billion	1.2	-	-	-	-	-
2	GDP at constant (2011-12 Prices)	Growth %	7.4	8.0 3rd RE	8.2 2nd RE	7.2 1st RE	6.8 PE	5.1 2nd AE (Apr-Dec)
3	Agricultural Production (Food grains)	MMT	252.0	251.5	275.1	285.0	285.2	292.0 2nd AE
		Growth %	-4.9	-0.2	9.4	3.6	0.1	2.4
4	Gross Fiscal Deficit (as percent of GDP)	%	4.1	3.9	3.5	3.5	3.4 RE	3.4 BE

	Economic indicators	**Unit/ Base**	**2017-18**	**2018-19**	**March**		**April-March**	
					2018-19	**2019-20**	**2018-19**	**2019-20**
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.4	3.8	0.2*	4.5* QE	4.0#	0.9#
6	Imports	$ Billion	465.6	514.1	43.7	31.2	514.1	467.2
7	Exports	$ Billion	303.5	330.1	32.7	21.4	330.1	314.3
8	Trade Balance	$ Billion	-162.1	-184.0	-11.0	-9.8	-184.0	-152.9
9	Foreign Exchange Reserves @	$ Billion	424.4	411.9	411.9	475.6	-	-

IIP is for the month of *February, #April-February; @2017-18-as on March 30, 2018, 2018-19-as on March 29, 2019, March 2019- as on March 29, 2019 and March 2020-as on March 27, 2020; E-Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates; FE: Final Estimates; PE: Provisional Estimates.

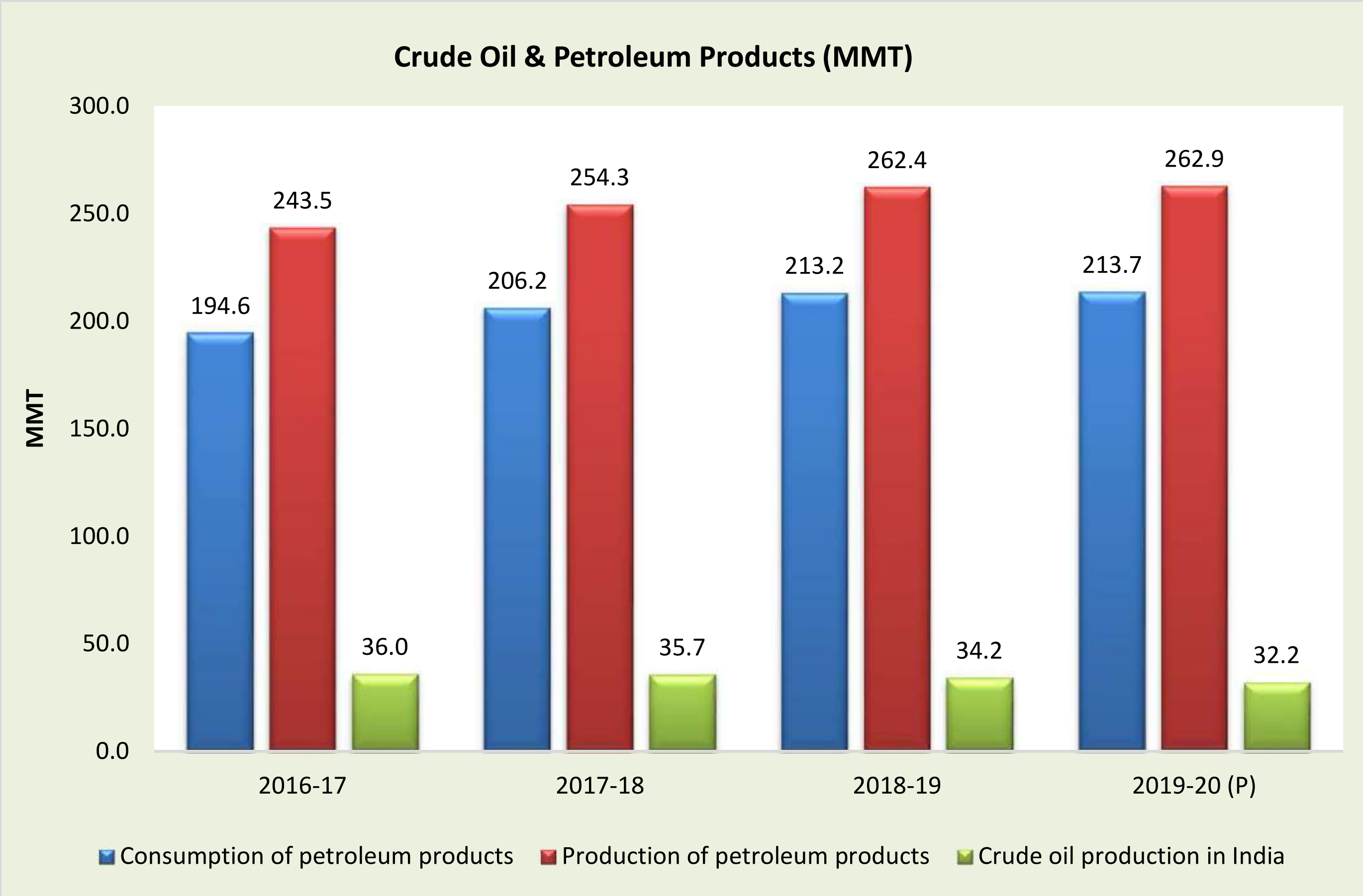
Source: Ministry of Commerce & Industry, Ministry of Statistics and Programme Implementation, Ministry of Agriculture & Farmer's Welfare, Reserve Bank of India

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

	Details	Unit/ Base	2016-17	2017-18	March		April-March	
					2018-19	2019-20 (P)	2018-19	2019-20 (P)
1	Crude oil production in India	MMT	36.0	35.7	2.9	2.7	34.2	32.2
2	Consumption of petroleum products	MMT	194.6	206.2	19.6	16.1	213.2	213.7
3	Production of petroleum products	MMT	243.5	254.3	23.0	22.9	262.4	262.9
4	Gross natural gas production	MMSCM	31,897	32,649	2,818	2,411	32,875	31,180
5	Natural gas consumption	MMSCM	55,697	59,170	5,123	5,191	60,798	63,932
6	Imports & exports:							
	Crude oil imports	MMT	213.9	220.4	19.2	19.5	226.5	227.0
		$ Billion	70.2	87.8	8.9	5.8	111.9	101.4
	Petroleum products (POL) imports*	MMT	36.3	35.5	3.7	3.9	33.3	43.3
		$ Billion	10.6	13.6	1.5	1.4	16.3	17.9
	Gross petroleum imports (Crude + POL)	MMT	250.2	255.9	22.8	23.4	259.8	270.3
		$ Billion	80.8	101.4	10.5	7.2	128.3	119.2
	Petroleum products (POL) export	MMT	65.5	66.8	5.5	5.9	61.1	65.7
		$ Billion	29.0	34.9	3.3	1.9	38.2	35.8
	LNG imports*	MMSCM	24,849	27,439	2,382	2,868	28,740	33,680
		$ Billion	6.1	8.1	0.7	0.7	10.3	9.5
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.0	21.8	23.9	23.2	24.9	25.5
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	11.5	10.1	9.0	11.6	11.4
9	Import dependency of crude (on consumption basis)	%	81.7	82.9	85.1	83.1	83.8	85.0

*January - March 2020 data prorated on the basis of January to December 2019 actual provisional data provided by DGCIS.

Note: Crude oil imports ($ Billion) during 2018-19 does not include value of crude oil quantity of 0.8 MMT imported at ISPRL, Mangalore


Crude Oil & Petroleum Products (MMT)
300.0
250.0
200.0
150.0
100.0
50.0
0.0
MMT
194.6
243.5
36.0
206.2
254.3
35.7
213.2
262.4
34.2
213.7
262.9
32.2
2016-17
2017-18
2018-19
2019-20 (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	2016-17	2017-18	March			April-March		
			2018-19	2019-20 (Target)*	2019-20 (P)	2018-19	2019-20 (Target)*	2019-20 (P)
ONGC	20.9	20.8	1.6	2.1	1.7	19.6	22.2	19.2
Oil India Limited (OIL)	3.3	3.4	0.3	0.3	0.3	3.3	3.4	3.1
Private / Joint Ventures (JVs)	10.4	9.9	0.8	0.8	0.6	9.6	9.5	8.2
Total Crude Oil	**34.5**	**34.0**	**2.7**	**3.1**	**2.6**	**32.5**	**35.0**	**30.5**
ONGC condensate	1.4	1.5	0.1		0.1	1.5		1.4
PSC condensate	0.1	0.2	0.03		0.02	0.2		0.3
Total condensate	**1.5**	**1.6**	**0.1**		**0.1**	**1.7**		**1.6**
Total (Crude + Condensate) (MMT)	**36.0**	**35.7**	**2.9**	**3.1**	**2.7**	**34.2**	**35.0**	**32.2**
Total (Crude + Condensate) (Million Bbl/Day)	**0.72**	**0.72**	**0.67**	**0.74**	**0.64**	**0.69**	**0.70**	**0.64**

*Target is inclusive of condensate.

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

Details	2016-17	2017-18	March		April-March	
			2018-19	2019-20 (P)	2018-19	2019-20 (P)
Total domestic production (MMTOE)	67.9	68.3	5.7	5.1	67.1	63.3
Overseas production (MMTOE)	17.6	22.7	2.2	2.0	24.7	24.5
Overseas production as percentage of domestic production	**25.9%**	**33.2%**	**38.3%**	**40.0%**	**36.8%**	**38.7%**

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

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

	Details	2016-17	2017-18	March		April-March	
				2018-19	2019-20 (P)	2018-19	2019-20 (P)
1	High Sulphur crude	177.4	188.4	16.8	16.2	194.2	192.2
2	Low Sulphur crude	67.9	63.6	5.7	5.0	63.0	62.2
Total crude processed (MMT)		**245.4**	**251.9**	**22.5**	**21.2**	**257.2**	**254.4**
Total crude processed (Million Bbl/Day)		**4.93**	**5.06**	**5.32**	**5.01**	**5.17**	**5.09**
Percentage share of HS crude in total crude oil processing		**72.3%**	**74.8%**	**74.6%**	**76.5%**	**75.5%**	**75.5%**

6. Quantity and value of crude oil imports			
Year	**Quantity (MMT)**	**$ Million**	**Rs. Crore**
2018-19	226.5	1,11,915	7,83,183
2019-20 (P)	227.0	1,01,388	7,16,627

7. Self-sufficiency in petroleum products (Million Metric Tonnes)							
Particulars		**2016-17**	**2017-18**	**March**		**April-March**	
				2018-19	**2019-20 (P)**	**2018-19**	**2019-20 (P)**
1	Indigenous crude oil processing	33.5	32.8	2.7	2.5	31.7	29.3
2	Products from indigenous crude (93.3% of crude oil processed)	31.3	30.6	2.5	2.3	29.6	27.3
3	Products from fractionators (Including LPG and Gas)	4.3	4.6	0.4	0.4	4.9	4.8
4	Total production from indigenous crude & condensate **(2 + 3)**	35.6	35.2	2.9	2.7	34.5	32.1
5	Total domestic consumption	194.6	206.2	19.6	16.1	213.2	213.7
% Self-sufficiency (4 / 5)		**18.3%**	**17.1%**	**14.9%**	**16.9%**	**16.2%**	**15.0%**

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

Company	Refinery	Installed capacity (1.4.2020) MMTPA	Crude oil processing (MMT)							
			2016-17	2017-18	March			April-March		
					2018-19	2019-20 (Target)	2019-20 (P)	2018-19	2019-20 (Target)	2019-20 (P)
IOCL	Barauni (1964)	6.0	6.5	5.8	0.6	0.6	0.5	6.7	6.8	6.5
	Koyali (1965)	13.7	14.0	13.8	1.0	1.3	1.2	13.5	13.5	13.1
	Haldia (1975)	8.0	7.7	7.7	0.7	0.7	0.6	8.0	7.3	6.5
	Mathura (1982)	8.0	9.2	9.2	0.9	0.9	0.8	9.7	8.9	8.9
	Panipat (1998)	15.0	15.6	15.7	0.7	1.4	1.2	15.3	15.6	15.0
	Guwahati (1962)	1.0	0.9	1.0	0.08	0.09	0.00	0.9	0.9	0.9
	Digboi (1901)	0.65	0.5	0.7	0.06	0.06	0.06	0.7	0.7	0.7
	Bongaigaon(1979)	2.35	2.5	2.4	0.2	0.2	0.1	2.5	2.4	2.0
	Paradip (2016)	15.0	8.2	12.7	1.4	1.4	1.3	14.6	15.9	15.8
	IOCL-TOTAL	**69.7**	**65.2**	**69.0**	**5.7**	**6.7**	**5.7**	**71.8**	**71.9**	**69.4**
CPCL	Manali (1969)	10.5	9.8	10.3	0.9	0.9	0.9	10.3	10.4	10.2
	CBR (1993)	1.0	0.5	0.5	0.06	0.0	0.0	0.4	0.0	0.0
	CPCL-TOTAL	**11.5**	**10.3**	**10.8**	**1.0**	**0.9**	**0.9**	**10.7**	**10.4**	**10.2**
BPCL	Mumbai (1955)	12.0	13.5	14.1	1.4	1.3	1.3	14.8	14.7	15.0
	Kochi (1966)	15.5	11.8	14.1	1.4	1.4	1.4	16.1	16.2	16.5
BORL	Bina (2011)	7.8	6.4	6.7	0.7	0.7	0.7	5.7	7.8	7.9
NRL	Numaligarh (1999)	3.0	2.7	2.8	0.2	0.3	0.2	2.9	2.8	2.4
	BPCL-TOTAL	**38.3**	**34.4**	**37.7**	**3.7**	**3.6**	**3.7**	**39.4**	**41.5**	**41.8**

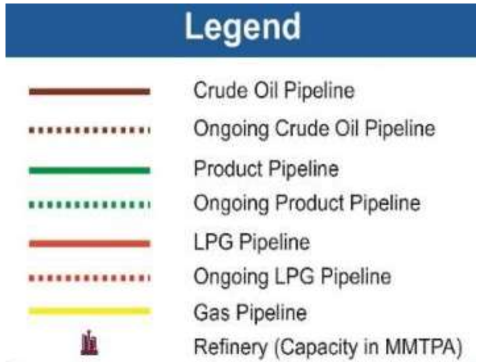
Company	Refinery	Installed capacity (1.4.2020) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	March			April-March		
					2018-19	2019-20 (Target)	2019-20 (P)	2018-19	2019-20 (Target)	2019-20 (P)
ONGC	Tatipaka (2001)	0.066	0.085	0.080	0.008	0.004	0.007	0.066	0.046	0.087
MRPL	Mangalore (1996)	15.0	16.0	16.1	1.4	1.5	1.2	16.2	15.4	14.0
	ONGC-TOTAL	**15.1**	**16.1**	**16.2**	**1.4**	**1.5**	**1.2**	**16.3**	**15.4**	**14.0**
HPCL	Mumbai (1954)	7.5	8.5	8.6	0.8	0.8	0.7	8.7	7.3	8.1
	Visakh (1957)	8.3	9.3	9.6	0.9	0.8	0.8	9.8	9.2	9.1
HMEL	Bathinda (2012)	11.3	10.5	8.8	1.1	0.9	1.0	12.5	11.0	12.2
	HPCL- TOTAL	**27.1**	**28.3**	**27.1**	**2.7**	**2.5**	**2.5**	**30.9**	**27.5**	**29.4**
RIL	Jamnagar (DTA) (1999)	33.0	32.8	33.2	2.8	2.8	3.0	31.8	31.8	33.0
	Jamnagar (SEZ) (2008)	35.2	37.4	37.3	3.3	3.3	2.5	37.4	37.4	35.9
NEL	Vadinar (2006)	20.0	20.9	20.7	1.8	1.8	1.7	18.9	18.9	20.6
All India (MMT)		**249.9**	**245.4**	**251.9**	**22.5**	**23.2**	**21.2**	**257.2**	**254.7**	**254.4**
All India (Million Bbl/Day)		**5.02**	**4.93**	**5.06**	**5.32**	**5.48**	**5.01**	**5.17**	**5.10**	**5.09**

Note: 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 01.04.2020)

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,283	1,193	688	1,017	5,301	937			**10,419**
	Cap (MMTPA)	60.6	9.0	10.7	11.3	48.6	7.8			**147.9**
Products	Length (KM)		654			9,206	2,241	3,775	2,395	**18,271**
	Cap (MMTPA)		1.7			46.0	19.5	34.7	9.4	**111.3**

Pipeline Network

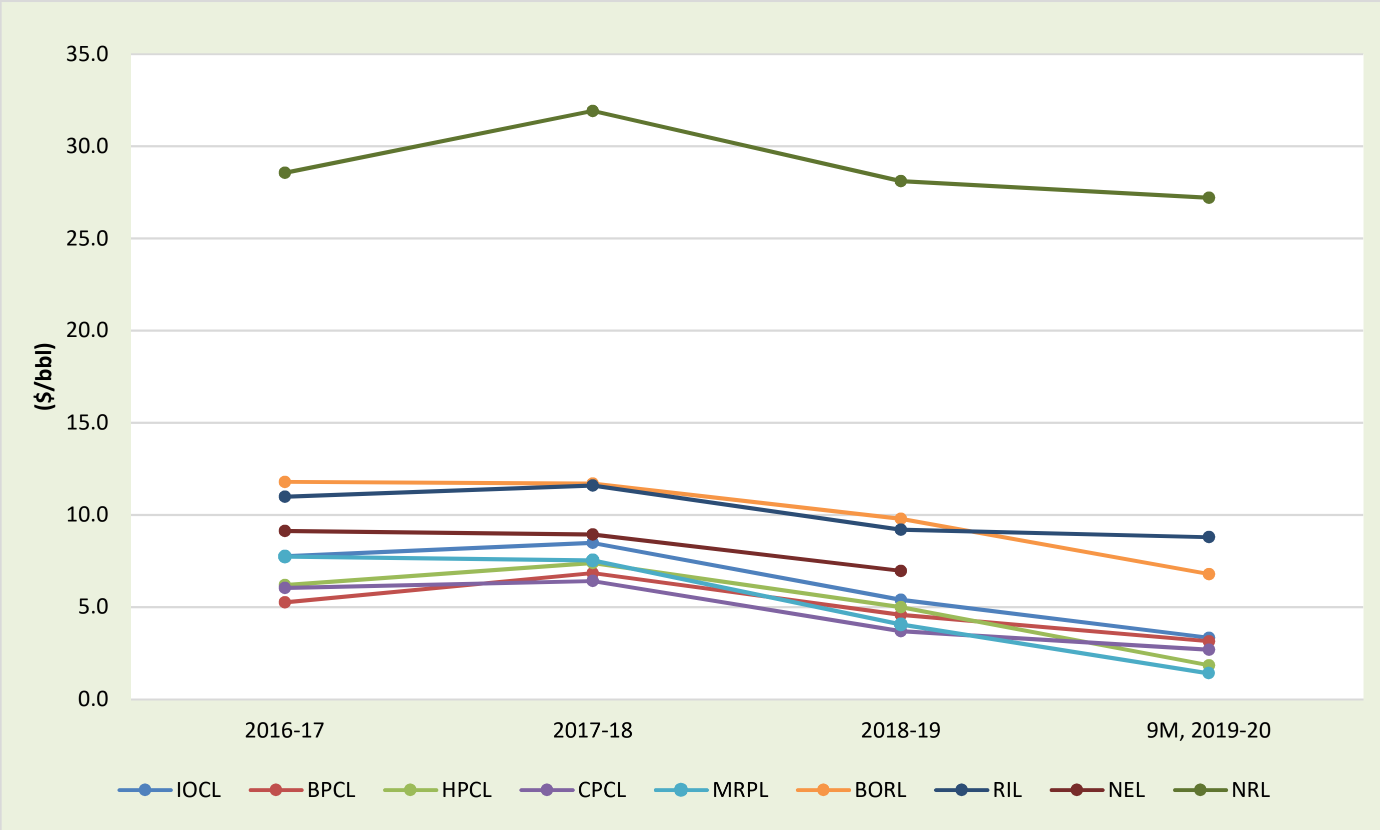


Note: Pipelines shown are indicative only.

10. Gross Refining Margins (GRM) of refineries ($/bbl)					
Company	**Refinery**	**2016-17**	**2017-18**	**2018-19**	**9M, 2019-20**
IOCL	Barauni	6.52	6.60	3.86	2.46
	Koyali	7.55	9.44	4.87	3.05
	Haldia	6.80	6.86	5.36	1.88
	Mathura	7.01	7.09	4.65	2.51
	Panipat	7.95	7.74	4.66	2.81
	Guwahati **	22.14	21.88	16.35	16.98
	Digboi **	24.49	24.86	22.74	19.55
	Bongaigaon **	20.15	20.62	16.94	16.07
	Paradip #	4.22	7.02	4.46	2.18
	Weighted average	**7.77**	**8.49**	**5.41**	**3.34**
BPCL	Kochi	5.16	6.44	4.27	2.75
	Mumbai	5.36	7.26	4.92	3.60
	Weighted average	**5.26**	**6.85**	**4.58**	**3.15**
HPCL	Mumbai	6.95	8.35	5.79	3.95
	Visakhapatnam	5.51	6.55	4.31	-0.02
	Weighted average	**6.20**	**7.40**	**5.01**	**1.85**
CPCL	Chennai	6.05	6.42	3.70	2.69
MRPL	Mangalore	7.75	7.54	4.06	1.41
NRL	Numaligarh **	28.56	31.92	28.11	27.21
BORL	Bina	11.80	11.70	9.80	6.80
RIL	Jamnagar	11.00	11.60	9.20	8.80
NEL	Vadinar	9.14	8.95	6.97	*

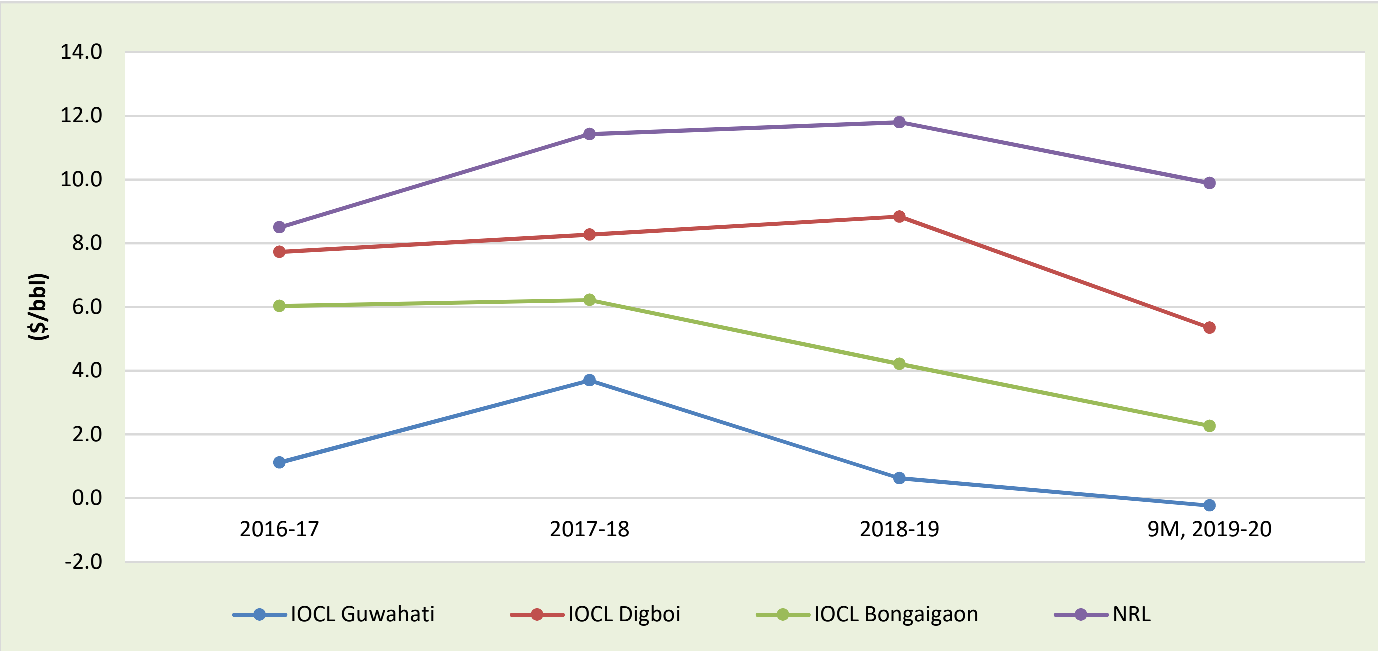
*Not available; # Commissioned in February, 2016; HMEL data not available; ** GRM of North Eastern refineries are including excise duty benefit. For GRM excluding excise duty benefit, refer table 11.

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



11. GRM of North-East refineries excluding excise duty benefit ($/bbl)

Company	Refinery	2016-17	2017-18	2018-19	9M, 2019-20
IOCL	Guwahati	1.12	3.70	0.63	-0.23
	Digboi	7.73	8.27	8.84	5.35
	Bongaigaon	6.03	6.22	4.21	2.27
NRL	Numaligarh	8.50	11.43	11.80	9.89

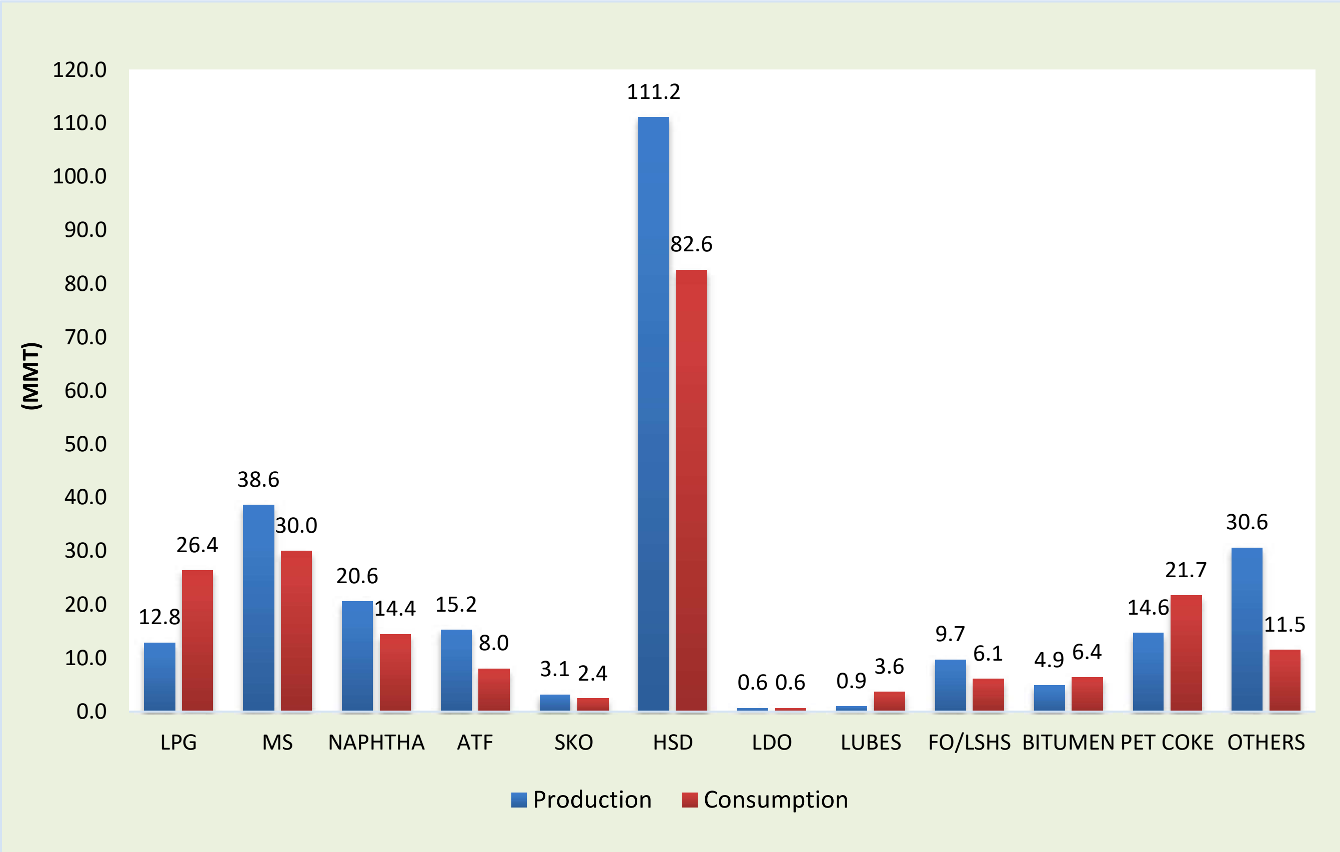


Part C: Consumption

12. Production and consumption of petroleum products (Million Metric Tonnes)										
Products	2017-18		March 2019		March 2020 (P)		2018-19		2019-20 (P)	
	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.4	23.3	1.2	2.3	1.2	2.3	12.8	24.9	12.8	26.4
MS	37.8	26.2	3.3	2.6	3.3	2.2	38.0	28.3	38.6	30.0
NAPHTHA	20.0	12.9	1.6	1.2	1.9	1.4	19.6	14.1	20.6	14.4
ATF	14.7	7.6	1.3	0.7	1.1	0.5	15.5	8.3	15.2	8.0
SKO	4.3	3.8	0.3	0.3	0.3	0.2	4.1	3.5	3.1	2.4
HSD	108.1	81.1	9.9	7.5	9.7	5.7	110.6	83.5	111.2	82.6
LDO	0.6	0.5	0.06	0.05	0.04	0.05	0.7	0.6	0.6	0.6
LUBES	1.0	3.9	0.10	0.5	0.11	0.3	0.9	3.7	0.9	3.6
FO/LSHS	10.3	6.7	0.6	0.5	0.8	0.5	10.0	6.6	9.7	6.1
BITUMEN	5.3	6.1	0.6	0.9	0.5	0.5	5.6	6.7	4.9	6.4
PET COKE	13.9	25.7	1.2	2.2	1.3	1.7	13.7	21.3	14.6	21.7
OTHERS	26.2	8.3	2.7	1.0	2.6	0.9	31.0	11.7	30.6	11.5
ALL INDIA	**254.3**	**206.2**	**23.0**	**19.6**	**22.9**	**16.1**	**262.4**	**213.2**	**262.9**	**213.7**
Growth (%)	**4.4%**	**5.9%**	**4.5%**	**5.0%**	**-0.5%**	**-17.8%**	**3.2%**	**3.4%**	**0.2%**	**0.2%**

Note: Prod - Production; Cons - Consumption

Petroleum Products: April 2019-March 2020 (MMT)



13. Kerosene allocation vs upliftment (Kilo Litres)

Product	2016-17		2017-18		2018-19		2019-20 (P)	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
PDS Kerosene	69,33,030	66,78,447	50,21,828	46,69,160	44,32,994	41,52,112	31,21,328	27,93,217

14. Ethanol blending programme

Particulars	Ethanol Supply Year *			
	2016-17	2017-18	2018-19 (P)	2019-20 (P) (Dec 2019-Mar 2020)
Ethanol received by PSU OMCs under EBP Program (in Cr. Litrs)	66.5	150.5	188.6	55.2
Average Percentage of Blending Sales (EBP%)	2.0%	4.2%	5.0%	4.4%

***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.

15. Industry marketing infrastructure (as on 01.04.2020) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL	NEL	SHELL	Others	Total
POL Terminal/ Depots **(Nos.)**$	118	78	84	18	3	-	6	**307**
Aviation Fuel Stations **(Nos.)**@	119	61	42	31	-	-	1	**254**
Retail Outlets (total) **(Nos.)**,^	29,085	16,234	16,476	1,400	5,702	189	7	**69,093**
out of which Rural ROs	8,515	3,264	3,863	127	1,949	30	-	**17,748**
SKO/LDO agencies **(Nos.)**	3,882	1,001	1,638	-	-	-	-	**6,521**
LPG Distributors (total) **(Nos.) (PSUs only)**	12,450	6,110	6,110	-	-	-	-	**24,670**
LPG Bottling plants **(Nos.) (PSUs only)**#	92	51	50	-	-	-	3	**196**
LPG Bottling capacity **(TMTPA) (PSUs only)**&	9,977	4,560	5,582	-	-	-	173	**20,292**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	13.1	7.1	7.7	-	-	-	-	**27.9**

$Others=4 MRPL & 2 NRL); @(Others=ShellMRPL -1); ^(Others=MRPL-7); #(Others=NRL-1, OIL-1, CPCL-1); &(Others=NRL-30, OIL-23, CPCL-120)

Part D: LPG

16. LPG consumption (Thousand Metric Tonne)

LPG category	2016-17	2017-18	March			April-March		
			2018-19	2019-20 (P)	Gr (%)	2018-19	2019-20 (P)	Gr (%)
1. PSU Sales :								
LPG-Packed Domestic	18,871.4	20,351.8	1,981.0	2,093.1	5.7	21,728.0	23,076.1	6.2
LPG-Packed Non-Domestic	1,775.9	2,085.8	215.7	166.7	-22.7	2,364.4	2,614.4	10.6
LPG-Bulk	364.3	355.4	29.1	15.7	-46.0	318.1	263.3	-17.2
Auto LPG	167.3	184.4	14.9	9.9	-33.5	180.3	171.9	-4.7
Sub-Total (PSU Sales)	**21,178.9**	**22,977.4**	**2,240.7**	**2,285.4**	**2.0**	**24,590.8**	**26,125.7**	**6.2**
2. Direct Private Imports*	429.3	364.5	21.5	20.8	-3.0	316.0	240.3	-23.9
Total (1+2)	**21,608.2**	**23,341.8**	**2,262.1**	**2,306.2**	**1.9**	**24,906.8**	**26,366.0**	**5.9**

*January 2020-March 2020 import data are prorated on the basis of January 2020 to December 2019 actual data provided by DGCIS.

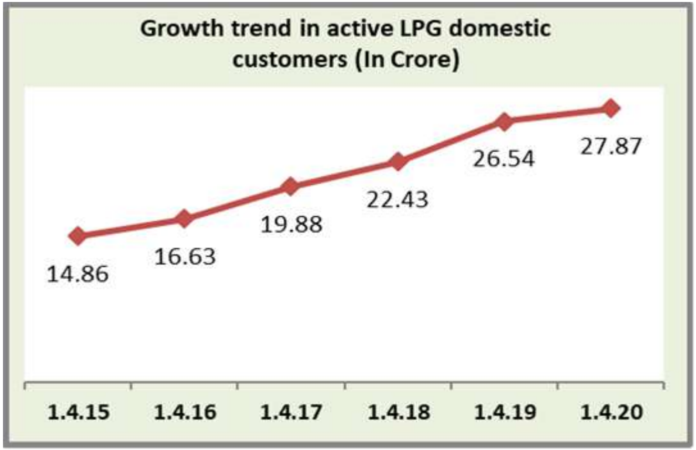
17. LPG marketing at a glance

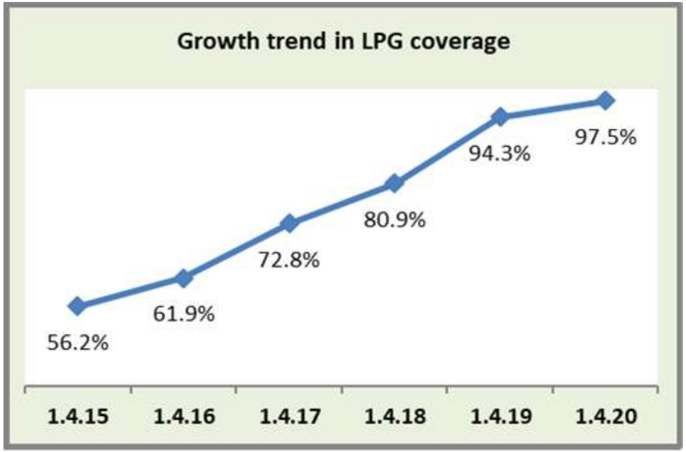
Particulars (As on 1st of April)	Unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 (P)
LPG Active Domestic Customers	(Lakh)								1486	1663	1988	2243	2654	2787
	Growth									11.9%	19.6%	12.8%	18.3%	5.0%
LPG Coverage (Estimated)	(Percent)								56.2	61.9	72.8	80.9	94.3	97.5
	Growth									10.1%	17.6%	11.1%	16.5%	3.4%
PMUY Beneficiaries	(Lakh)										200	356	719	802
	Growth											77.7%	101.9%	11.5%
LPG Distributors	(No.)	9365	9366	9686	10541	11489	12610	13896	15930	17916	18786	20146	23737	24670
	Growth	0.0%	0.0%	3.4%	8.8%	9.0%	9.8%	10.2%	14.6%	12.5%	4.9%	7.2%	17.8%	3.9%
Auto LPG Dispensing Stations	(No.)	327	447	536	604	652	667	678	681	676	675	672	661	657
	Growth	48.6%	36.7%	19.9%	12.7%	7.9%	2.3%	1.6%	0.4%	-0.7%	-0.1%	-0.4%	-1.6%	-0.6%
Bottling Plants	(No.)	181	182	182	183	184	185	187	187	188	189	190	192	196
	Growth	0.0%	0.6%	0.0%	0.5%	0.5%	0.5%	1.1%	0.0%	0.5%	0.5%	0.5%	1.1%	2.1%

Source: PSU OMCs (IOCL,BPCL and HPCL)

1.All growth rates as on 1 April of any year are w.r.t. figures as on 1 April of previous year.

2. LPG coverage has been estimated based on active domestic LPG connections of PSU OMCs divided by households estimated by extrapolating decadal growth of 2001-11 on households in 2011 as per Census 2011 figures.

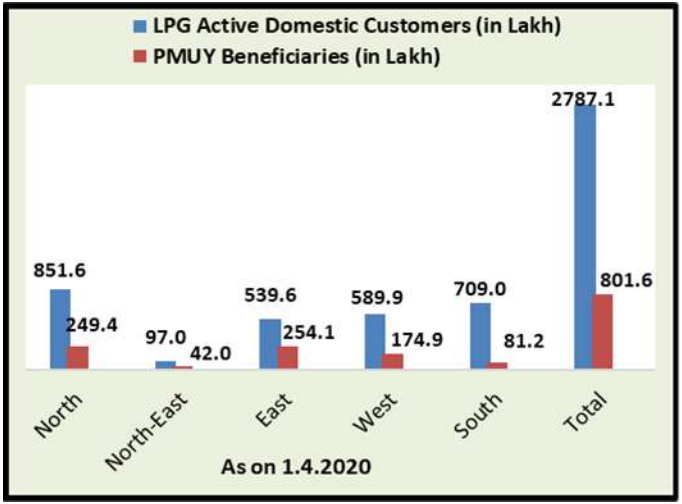

Growth trend in active LPG domestic customers (In Crore)
14.86
16.63
19.88
22.43
26.54
27.87
1.4.15
1.4.16
1.4.17
1.4.18
1.4.19
1.4.20

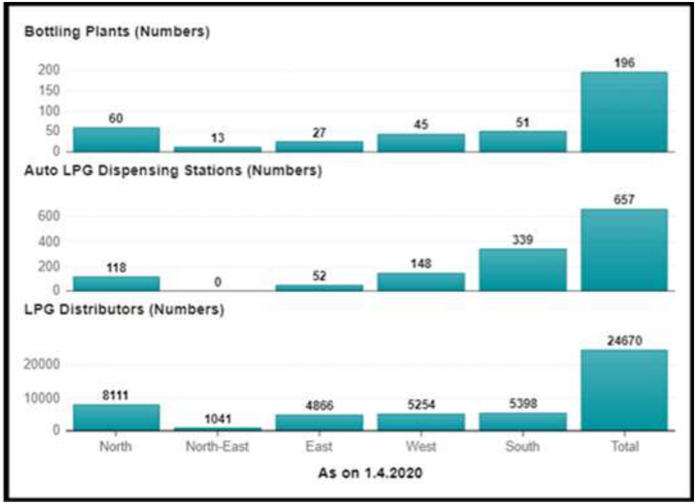

Growth trend in LPG coverage
56.2%
61.9%
72.8%
80.9%
94.3%
97.5%
1.4.15
1.4.16
1.4.17
1.4.18
1.4.19
1.4.20


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

18-Region-wise data on LPG marketing (As on 1.4.2020)						
Particulars	**North**	**North-East**	**East**	**West**	**South**	**Total**
LPG Active Domestic Customers (in Lakh)	851.6	97.0	539.6	589.9	709.0	2787.1
LPG Coverage (Estimated)	111.6%	90.5%	83.9%	88.5%	104.7%	97.5%
PMUY Beneficiaries (in Lakh)	249.4	42.0	254.1	174.9	81.2	801.6
Non-domestic LPG customers (in Lakh)	6.3	0.7	3.2	8.2	13.9	32.4
LPG Distributors (Numbers)	8111	1041	4866	5254	5398	24670
Auto LPG Dispensing Stations (Numbers)	118	0	52	147	340	657
Bottling Plants* (Numbers)	60	13	27	45	51	196

*Includes Numaligarh BP, Duliajan BP and CPCL BP.





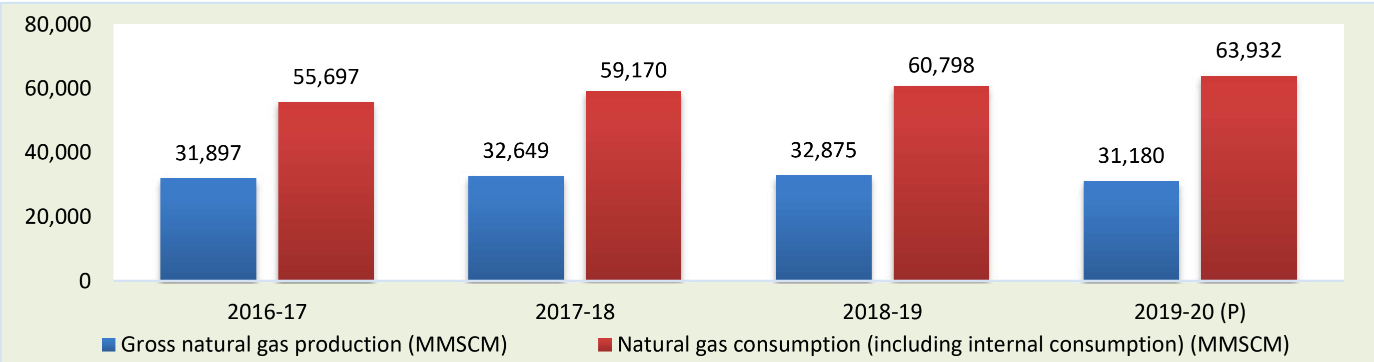
Part E: Natural Gas

19. Natural gas at a glance

(MMSCM)

Details	2016-17	2017-18	March			April-March		
			2018-19	2019-20 (Target)	2019-20 (P)	2018-19	2019-20 (Target)	2019-20 (P)
(a) Gross production	31,897	32,649	2,818	3,087	2,411	32,875	34,553	31,180
- ONGC	22,088	23,429	2,137	2,359	1,906	24,677	25,848	23,746
- Oil India Limited (OIL)	2,937	2,881	235	272	212	2,722	3,310	2,668
- Private / Joint Ventures (JVs)	6,872	6,338	446	456	294	5,477	5,395	4,766
(b) Net production (excluding flare gas and loss)	30,848	31,731	2,741		2,323	32,058		30,252
(c) LNG import	24,849	27,439	2,382		2,868	28,740		33,680
(d) Total consumption including internal consumption (b+c)	55,697	59,170	5,123		5,191	60,798		63,932
(e) Total consumption **(in BCM)**	55.7	59.2	5.1		5.2	60.8		63.9
(f) Import dependency based on consumption (%), {c/d*100}	44.6	46.4	46.5		55.3	47.3		52.7

Note: LNG import data for DGCIS (Jan-Mar 2020) are on estimated basis.



20. Coal Bed Methane (CBM) gas development in India

Prognosticated CBM resources		92	TCF
Established CBM resources		9.9	TCF
Total available coal bearing areas		26,000	Sq. KM
Exploration initiated		16,613	Sq. KM
Blocks awarded		33	Nos.
Production of CBM gas	March 2020 (P)	58.4	MMSCM
Production of CBM gas	April-March 2020 (P)	655.4	MMSCM

21. Major natural gas pipeline network as on 01.04.2020

Nature of pipeline		GAIL	Reliance	GSPL	ARN^	IOCL	Total
Natural gas	Length (KM)	12,160	1,774	2,692	215	140	**16,981**
	Cap (MMSCMD)	246	84	43	5	10	**387**

^Excludes CGD pipeline network

22. Existing LNG terminals

Location	Promoters	Capacity as on 01.03.2020	Capacity utilisation in % Apr2019-Feb2020 (P)
Dahej	Petronet LNG Ltd (PLL)	17.5 MMTPA	103.1
Hazira	Shell Energy India Pvt. Ltd.	5 MMTPA	98.8
Dabhol	RGPPL (GAIL - NTPC JV)	5 MMTPA	28.1
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	16.6
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	8.0
Total Capacity		**37.5 MMTPA**	

* To increase to 5 MMTPA with breakwater

23. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.04.2020

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Andhra Pradesh	Bhagyanagar Gas Limited, Godavari Gas Private Limited Megha Engineering & Infrastructure Limited	Kakinada, Vijayawada,East Godavari District (excluding area already authorized), West Godavari District, Krishna District (excluding area already authorized)	66	25,370	75,832	193	14
Assam	Assam Gas Company Limited	Upper Assam (covering Tinsukia, Dibrugarh, Sivasagar, Jorhat & Golaghat)	1	49	35,038	1,142	404
Bihar	GAIL (India) Limited	Patna District	8	4,835	943	7	0
Chandigarh, Haryana, Punjab & Himachal Pradesh	IndianOil-Adani Gas Private Limited	Chandigarh (UT) and Panchkula (part), SAS Nagar (part) & Solan (part) Districts	11	7,500	18,646	17	2
Dadra & Nagar Haveli	Gujarat Gas Limited	UT of Dadra & Nagar Haveli	6	1,190	4,227	34	29
Daman and Diu	IndianOil-Adani Gas Private Limited	UT of Daman	4	1,000	2,068	24	15
Delhi	Indraprastha Gas Limited	NCT of Delhi	419	7,75,142	9,13,139	2,277	1,297
Goa	Goa Natural Gas Private Limited	North Goa District	2	0	3,857	0	1
Gujarat & UT of Daman and Diu	IRM Energy Private Limited	Diu & Gir Somnath Districts	5	277	0	0	0

23. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.04.2020

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Gujarat	Adani Gas Limited , Vadodara Gas Limited , Charotar Gas Sahakari Mandali Limited, Gujarat Gas Limited, Hindustan Petroleum Corporation Limited, IRM Energy Private Limited, Sabarmati Gas Limited	Ahmedabad City and Daskroi Area, Porbandar District, Vadodara, Anand area including Kanjari & Vadtal Villages (in Kheda District), Bhavnagar, Jamnagar, Kutch West, Amreli District, Dahej Vagra Taluka, Dahod District, Anand District (excluding areas already authorized), Panchmahal District, Surat, Bharuch, Ankleshwar , Nadiad, Navsari (part) District, Rajkot, Surendranagar (part) District, Hazira, Valsad (part), District, Narmada (Rajpipla) District, Gandhinagar (excluding areas already authorized), Ahmedabad (excluding areas already authorized), Ahmedabad CNG Stations, Banaskantha District, Patan District, Gandhinagar, Mehsana, Sabarkantha, Kheda Districts (Except areas already authorized), Morbi District (except area already authorized) & Mahisagar District GA, Surendranagar District (Except areas already authorized), Barwala & Ranpur Talukas, Navsari District (Except areas already authorized), Surat District (Except areas already authorized), Tapi District (Except areas already authorized) & the Dangs District	636	9,64,448	21,49,727	20,030	5,132

23. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.04.2020

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Haryana	Adani Gas Limited, GAIL Gas Limited, Haryana City Gas Distribution Limited, HPOIL Gas Private Limited, IndianOil-Adani Gas Private Limited, Indraprastha Gas Limited	Nuh & Palwal Districts, Faridabad, Sonipat (part) District, Gurugram, Ambala and Kurukshetra Districts, Panipat District, Rewari District, Karnal District, Bhiwani, Charkhi Dadri & Mahendragarh Districts	103	1,70,128	1,31,385	323	639
Jharkhand	GAIL (India) Limited	Ranchi District , East Singhbhum District	8	1,651	834	0	0
Karnataka	GAIL Gas Limited, IndianOil-Adani Gas Private Limited, Megha Engineering & Infrastructure Limited	Bengaluru Rural and Urban Districts, Dharwad District, Tumkur District, Belgaum District	23	2,224	28,830	220	126
Kerala	IndianOil-Adani Gas Private Limited	Ernakulam District	8	1,100	5,465	7	5
Madhya Pradesh	Think Gas Bhopal Private Limited, Aavantika Gas Limited, GAIL Gas Limited, Indian Oil Corporation Limited, Naveriya Gas Private Limited	Bhopal & Rajgarh Districts GA, Indore (including Ujjain City) (part) District, Gwalior (part) District, Dewas (part) District, Vijaypur CNG Station, Dhar District	62	37,420	85,763	154	236
Maharashtra & Gujarat	Maharashtra Natural Gas Limited	Valsad (Except the area already authorized), Dhule and Nashik Districts	5	0	0	0	0

23. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.04.2020							
State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Maharashtra	Gujarat Gas Limited, HPOIL Gas Private Limited, Mahanagar Gas Limited, Maharashtra Natural Gas Limited, Mahesh Gas Limited, Unison Enviro Private Limited	Palghar District and Thane Rural, Kolhapur District, Raigarh District (excluding areas already authorized), Mumbai & Greater Mumbai, Thane Urban and adjoining municipalities, Pune City including Pimpri-Chiechwad & adjoining contiguous areas Hinjewadi, Chakan, Talegaon, Pune District (excluding areas already authorized), Ratnagiri District, Sindhudurg District	370	10,17,397	17,56,669	4,319	314
Odisha	GAIL (India) Limited, GAIL Gas Limited	Khordha District, Cuttack District, Sundargarh & Jharsuguda Districts, Ganjam, Nayagarh & Puri Districts	19	4,138	540	0	0
Punjab	Gujarat State Petronet Limited, IRM Energy Private Limited, Think Gas Ludhiana Private Limited, Torrent Gas Private Limited, Bharat Gas Resources Limited	Amritsar District, Fatehgarh Sahib District, Ludhiana District (Except area already authorized), Barnala & Moga Districts, Jalandhar District (Except areas already authorized), Kapurthala & SBS Nagar Districts, SAS Nagar District (Except areas already authorized), Patiala & Sangrur Districts, Rupnagar District, Bhatinda District	33	7,598	2788	22	21
Rajasthan	Rajasthan State Gas Limited, Torrent Gas Private Limited	Kota (part) District , Neemrana & Kukas CNG stations, Kota (except area already authorized), Baran & Chittontarh (Only Rawatbhata Taluka) Districts GA	16	12,166	10,076	16	16
Telangana	Bhagyanagar Gas Limited, Torrent Gas Private Limited	Hyderabad, Medak, Siddipet & Sangareddy Districts	66	26,266	69,073	14	32

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
23. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.04.2020							
Tripura	Tripura Natural Gas Company Limited	Agartala, West Tripura (Except areas already authorized) District	14	21,710	44,761	430	51
Uttar Pradesh	Adani Gas Limited, Central UP Gas Limited, GAIL (India) Limited, GAIL Gas Limited, Green Gas Limited, IndianOil-Adani Gas Private Limited, Indraprastha Gas Limited, Sanwariya Gas, Torrent Gas Private Limited, Bagpat Green Energy Pvt. Ltd.	Khurja, Jhansi (part) District, Bareilly (part) District, Kanpur (part) District, Varanasi District, Meerut (part) District, Firozabad (Taj Trapezium Zone), Agra, Lucknow, Bulandshahr (part) District, Allahabad (part) District, Meerut District (Except areas already authorized), Muzaffarnagar & Shamli Districts, Gautam Budh Nagar, Ghaziabad, Mathura (part) District, Moradabad (part) District, Auraiya, Kanpur Dehat & Etawah Districts, Gorakhpur, Sant Kabir Nagar & Kushinagar Districts, Moradabad (Except areas already authorized) District, Bagpat District	306	2,89,882	7,16,367	1,369	1,900
Uttar Pradesh & Madhya Pradesh	Adani Gas Limited	Jhansi (Except area already authorized) District, Bhind, Jalaun, Lalitpur and Datia Districts	1	0	0	0	0
Uttrakhand	IndianOil-Adani Gas Private Limited, Haridwar Natural Gas Private Limited	Udham Singh Nagar District, Haridwar District	5	150	12,387	24	24
West Bengal	Great Eastern Energy Corporation Limited	CNG stations at Asansol,Raniganj, Kultora, Durgapur	10	4,077	0	0	0
Total			**2,207**	**33,75,718**	**60,68,415**	**30,622**	**10,258**

24. 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	2.5	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

Part F: Taxes & Duties on Petroleum Products

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

International FOB prices/ Exchange rates ($/bbl)

Particulars	2017-18	2018-19	March 2020
Crude oil (Indian Basket)	56.43	69.88	33.36
Petrol	67.83	75.58	35.19
Diesel	68.19	82.51	41.87
Kerosene	67.65	82.24	36.20
LPG ($/MT)	485.92	526.00	460.00
FO ($/MT)	327.50	420.93	180.91
Naphtha ($/MT)	494.73	573.72	246.26
Exchange (Rs./$)	64.45	69.89	74.35

Customs, excise duty & GST rates

Product	Basic customs duty #	Excise duty	GST rates
Petrol	2.50%	Rs 22.98/Ltr^	**
Diesel	2.50%	Rs 18.83/Ltr^	**
PDS SKO	Nil	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)	5.00%		18.00%
Naphtha (Non-Fert)	4.00%		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	**

*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 @ 3% on petrol and diesel and 10% on other products 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 14.3.2020.

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

Particulars	Petrol*	Diesel*
Price charged to dealers (excluding Excise Duty and VAT)	28.28	31.78
Excise Duty	22.98	18.83
Dealers' Commission (Average)	3.54	2.49
VAT (incl VAT on dealers' commission)	14.79	9.19
Retail Selling Price	**69.59**	**62.29**

Particulars	PDS SKO*	Subsidised Domestic LPG*
Price before taxes and dealers'/distributors' commission	21.90	646.71
Dealers'/distributors' commission	2.59	61.84
GST (incl GST on dealers'/distributors' commission)	1.22	35.45
Retail Selling Price	**25.72**	**744.00**

*Petrol and diesel prices at Delhi as per IOCL are as on 16th April 2020. PDS SKO price at Mumbai and Subsidised Domestic LPG price at Delhi as on 1st April 2020.

Impact of changes in product price by $1 per bbl for PDS SKO and $10/MT for Domestic LPG & change in exchange rate by ₹1 per $

Product	Impact of change in product price by $1per bbl / $10per MT		Impact of change in exchange rate by ₹ 1/$	
	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)
PDS SKO	0.45	120	0.26	70
Domestic LPG	10.60	1580	6.63	990
Total	-	**1,700**	-	**1,060**

Note: The above calculations are based on RTP for April 2020.

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

Under-recoveries/subsidy & burden sharing

PDS Kerosene

Product	2017-18	2018-19	9M, 2019-20 (P)
	Rs./Crore		
Under recovery	4,672	5,950	1,651
Subsidy under DBTK #	113	117	25
Total	**4,785**	**6,067**	**1,676**

#DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanisam for direct transfer of subsidy paid to States/UTs. DBTK claims for 2019-20 are till July 2019.

Domestic LPG under DBTL (Direct benefit transfer for LPG)

Particulars	2017-18	2018-19	9M, 2019-20 (P)
	Rs./Crore		
DBTL subsidy	20,880	31,447	15,348
PME &IEC^	25	92	71
Total	**20,905**	**31,539**	**15,419**

PMUY (Pradhan Mantri Ujjwala Yojana)

Particulars	2017-18	2018-19	9M, 2019-20 (P)
	Rs./Crore		
PMUY claims	2,496	5,489	1,242
PME & IEC^	63	34	43
Total	**2,559**	**5,523**	**1,285**

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

Sales & profit of petroleum sector (Rs. Crores)

Particulars	2018-19		9M, 2019-20	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	1,97,468	35,332	137,721	21,580
Downstream Companies (PSU)	12,33,019	30,055	8,84,846	13,153
Standalone Refineries (PSU)	1,40,614	2,087	91,136	-195
Private-RIL	4,00,986	35,163	2,84,571	28,323

Borrowings of OMCs (Rs. Crores), As on

Company	Mar`18	Mar`19	9M, 2019-20
IOCL	58,030	86,359	75,706
BPCL	23,351	29,099	30,134
HPCL	20,991	27,240	28,590

Petroleum sector contribution to Central/State Govt.

Particulars	2017-18	2018-19	9M, 2019-20 (P)
Central Government	3,36,162	3,48,041	2,20,740
% of total revenue receipts	23%	20%	
State Governments	2,06,864	2,27,591	1,59,187
% of total revenue receipts	9%	8%	
Total (Rs. Crores)	**5,43,026**	**5,75,632**	**3,79,927**

Subsidy as a percentage of GDP (at current prices)

Particulars	2016-17	2017-18	2018-19
Petroleum subsidy	0.18	0.17	0.23

Note: GDP figure for 2016-17 and 2017-18 are Revised Estimates and 2018-19 are Provisional Estimates

Part G: Miscellaneous

26. Capital expenditure of PSU oil companies					
					(Rs in crores)
Company	2016-17 (P)	2017-18 (P)	2018-19 (P)	2019-20 (P)	
				Target	April-March
ONGC Ltd	28,010	72,383	28,738	32,921	30,115
ONGC Videsh Ltd (OVL)	18,360	6,240	6,013	5,161	5,363
Oil India Ltd (OIL)	10,514	8,395	3,702	4,105	3,724
GAIL (India) Ltd	2,180	3,613	5,958	5,339	4,381
Indian Oil Corp. Ltd. (IOCL)	21,918	20,345	26,548	25,084	28,316
Hindustan Petroleum Corp. Ltd (HPCL)	5,861	7,134	11,689	9,500	13,773
Bharat Petroleum Corp. Ltd (BPCL)	16,810	8,161	10,084	7,900	10,255
Mangalore Refinery & Petrochem Ltd (MRPL)	614	1,281	1,072	818	1,318
Chennai Petroleum Corp. Ltd (CPCL)	1,293	963	1,208	1,105	969
Numaligarh Refinery Ltd (NRL)	500	387	459	455	536
Balmer Lawrie Co. Ltd (BL)	73	78	125	40	40
Engineers India Ltd (EIL) #	-	-	87	1212	164
Total	**1,06,133**	**1,28,981**	**95,684**	**93,639**	**98,955**

Includes expenditure on investment in JV/subsidiaries.

(P) Provisional;

Included from 2018-19.

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