Ready Reckoner

Snapshot of India's Oil & Gas data

August, 2018

Analysis • Knowledge • Information

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

As on 20.09.2018

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Highlights for the month

- Indigenous crude oil and condensate production during August 2018 was lower by 3.7% than that of August 2017. PSC fields registered marginal growth of 0.7% during the month over August 2017 while PSU companies registered de-growth of 5.4%. On cumulative basis de-growth of 3.3% was registered during April-August 2018 over the corresponding period of the previous year.
- Total crude oil processed during August 2018 was 21.4 MMT, which was an increase of 4.8% over August 2017. PSU/JV refineries registered an increase of 7.4% while private refineries registered marginal increase of 0.6%. On cumulative basis an increase of 5.8% was registered in the total crude oil processed during April-August 2018 over the corresponding period of the previous year. Refineries processed 75.6% high sulphur crude oil during August 2018 against 74.8% during August 2017.
- Production of petroleum products during August 2018 saw a growth of 5.1% over August 2017. On cumulative basis an increase of 7.5% was registered in the total production of petroleum products during April-August 2018 over the corresponding period of the previous year.
- Crude oil imports during August 2018 and April-August 2018 increased by 2.9% and 6.5% respectively as compared to the same period of the previous year.
- Product imports decreased by 10.3% and 5.7% during August 2018 and April-August 2018 respectively over the corresponding period of the previous year. Decrease in POL product imports during April-August 2018 was mainly due to decrease in imports of MS, HSD and petcoke.
- Exports of products decreased by 4.4% and 7.1% during August 2018 and April-August 2018 respectively over the corresponding period of the previous year. Decrease in exports during April-August 2018 was mainly due to decrease in exports of MS, naphtha and fuel oil.
- Petroleum product consumption registered a growth of 0.8% during August 2018 and a cumulative growth of 3.9% during April-August 2018. Last year during August 2017, a de-growth of -2% and cumulative growth of 1.9% during the period April-August 2017 was observed. Except for petcoke (-19.2%) and products in ‘others’ category (-4.5%), all other products registered positive growth during August 2018.

•	Total LPG consumption continuously for the last sixty months in a row recorded a positive growth of 2.9% during August 2018 and a cumulative growth of 7.3% for the period April-August 2018 was observed. This year during the period April-August 2018, 22.9 lakh DBCs and 221.4 lakh new connections were released out of which 182.1 lakh were released under PMUY. Nearly 75 lakh new connections have been released more during the current year in this period compared to last year. Total 538.1 lakh connections were released under PMUY till 31.08.2018 since inception. Out of the five regions, Northern region had the highest share in consumption of 30.1% followed by Southern region at 28.5%, Western region at 22.9%, Eastern region at 16.1% and North Eastern region at 2.4% during August 2018. North Eastern region had the highest growth of 12.4% in total LPG consumption during August 2018.
•	SKO consumption registered a growth of 4.5% during August 2018 and a cumulative de-growth of -9.1% for the period April-August 2018. Growth in August 2018 was mainly because of high quantity of PDS SKO upliftment in West Bengal, Rajasthan and Odisha compared to August 2017. Last year during August 2017 a de-growth of -41.2% and cumulative de-growth -37.2% during the period April-August 2017 was observed. Cumulative reduction in PDS SKO allocation was -12.3% during Q1 & Q2, 2018-19 compared to the same period of the previous year. Out of total SKO consumption, PDS and non-PDS SKO share were 93% and 7% respectively during August 2018 whereas in August 2017 it was 93.4% and 6.6% respectively. During August 2018 non-PDS kerosene registered a growth of 12% whereas in August 2017 it was 10.8%.
•	Gross production of natural gas during August 2018 was 2789.3 MMSCM which was higher by 0.6% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 13571.7 MMSCM for the current financial year till August 2018 was lower by 0.9% compared with the corresponding period of the previous year .
•	LNG import for the month of August 2018 was 2308.3 MMSCM which was 9.9% higher than the corresponding month of the previous year. The cumulative import of 11753.5 MMSCM for the current year till August 2018 was higher by 18.1% compared with the corresponding period of the previous year.
•	The price of Brent Crude averaged \$72.62/bbl during August, 2018 as against \$74.35/bbl during July, 2018 and \$51.64/bbl during August, 2017. The Indian basket crude price averaged \$72.53/bbl during August, 2018 as against \$73.47/bbl during July, 2018 and \$ 50.63/bbl during August, 2017.

1. Selected indicators of the Indian economy

	Economic indicators	Unit/ Base	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Population (as on 1st May, 2011)	Billion	1.2	-	-	-	-	-
2	GDP at constant (2011-12 Prices)	Growth %	6.4	7.4	8.2	7.1	6.7 PE	8.2 E (Q1)
3	Agricultural Production (Food grains)	MMT	265.0	252.0	251.6	275.1 FE	284.8 4th AE	- -
		Growth %	3.1	-4.9	-0.2	9.4	3.5	-
4	Gross Fiscal Deficit	%	-4.5	-4.1	-3.9	-3.5	-3.5 RE	3.3 BE

	Economic indicators	Unit/ Base	2016-17	2017-18 (P)	August (P)		April-August (P)	
					2017-18	2018-19	2017-18	2018-19
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.6	4.3	1.0#	1.7#	6.6* QE	5.4* QE
6	Imports	$ Billion	384.4	465.6	36.1	45.2	184.5	216.4
7	Exports	$ Billion	275.9	303.5	23.4	27.8	117.2	136.1
8	Trade Balance	$ Billion	-108.5	-162.1	-12.7	-17.4	-67.3	-80.3
9	Foreign Exchange Reserves @	$ Billion	370.0	424.4	394.6	400.1	-	-

IIP is for the month of #July and *April-July; @2016-17-as on March 31, 2017, 2017-18-as on March 30, 2018, August 2017- as on August 25, 2017 and August 2018-as on August 31, 2018; E-Estimates; AE-Advanced Estimates; RE-Revised Estimates; PE-Provisional Estimates; FE-Final Estimates; QE-Quick Estimates.

Source: Ministry of Commerce & Industry (MoC&I), Ministry of Agriculture & Farmer's Welfare (MoA&FW), Reserve Bank of India (RBI)

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

	Details	Unit/ Base	2016-17	2017-18	August		April-August	
					2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	Crude oil production in India	MMT	36.0	35.7	3.0	2.9	15.1	14.6
2	Consumption of petroleum products*	MMT	194.6	204.9	16.5	16.6	83.9	87.2
3	Production of petroleum products	MMT	243.5	254.3	20.6	21.6	101.9	109.5
4	Gross natural gas production	MMSCM	31,897	32,648	2,773	2,789	13,690	13,572
5	Natural gas consumption	MMSCM	55,534	58,059	4,779	5,028	20,826	24,999
6	Imports & exports:							
	Crude oil imports	MMT	213.9	220.4	18.1	18.6	89.1	94.9
		$ Billion	70.2	87.8	6.4	9.8	31.0	48.9
	Petroleum products (POL) imports	MMT	36.3	35.9	3.3	3.0	15.2	14.3
		$ Billion	10.6	13.4	1.1	1.4	5.0	6.8
	Gross petroleum imports (Crude + POL)	MMT	250.2	256.3	21.4	21.6	104.3	109.3
		$ Billion	80.8	101.2	7.5	11.2	36.0	55.7
	Petroleum products exports	MMT	65.5	66.8	5.9	5.6	26.5	24.6
		$ Billion	29.0	34.9	2.8	3.7	12.4	16.3
	LNG imports	MMSCM	24,686	26,328	2,101	2,308	9,952	11,754
		$ Billion	6.1	7.8	0.5	0.9	2.6	4.1
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.0	21.7	20.7	24.7	19.5	25.7
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	11.5	11.8	13.2	10.6	12.0
9	Import dependency of crude (on consumption basis)	%	81.7	82.8	83.0	82.7	82.4	83.2

* Consumption of petroleum products for FY 2017-18 are provisional

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2016-17	2017-18	August			April-August		
			2017-18	2018-19 (Target)*	2018-19 (P)	2017-18	2018-19 (Target)*	2018-19 (P)
ONGC	20.9	20.8	1.8	1.9	1.7	8.9	9.4	8.3
Oil India Limited (OIL)	3.3	3.4	0.3	0.3	0.3	1.4	1.5	1.4
Private / Joint Ventures (JVs)	10.4	9.9	0.8	0.9	0.8	4.2	4.3	4.1
Total Crude Oil	**34.5**	**34.0**	**2.9**	**3.1**	**2.8**	**14.4**	**15.1**	**13.9**
ONGC condensate	1.4	1.5	0.1		0.1	0.6		0.6
PSC condensate	0.1	0.2	0.01		0.02	0.08		0.10
Total condensate	**1.5**	**1.6**	**0.1**	**0.0**	**0.1**	**0.7**	**0.0**	**0.7**
Total (Crude + Condensate) (MMT)	**36.0**	**35.7**	**3.0**	**3.1**	**2.9**	**15.1**	**15.1**	**14.6**
Total (Crude + Condensate) (Million Bbl)	**263.9**	**261.6**	**22.1**	**22.8**	**21.3**	**110.7**	**111.0**	**107.1**

*Target is inclusive of condensate. **Note:** Some sub-totals/ totals may not add-up due to rounding off at individual levels

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

Details	2016-17	2017-18	August		April-August	
			2017-18	2018-19 (P)	2017-18	2018-19 (P)
Total domestic production (MMTOE)	67.9	68.3	5.8	5.7	28.8	28.2
Overseas production (MMTOE)	17.3	21.7	1.8	2.0	8.7	9.2
Overseas production as percentage of domestic production	**25.5%**	**31.7%**	**30.5%**	**35.0%**	**30.2%**	**32.8%**

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

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

Details		2016-17	2017-18	August		April-August	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	High Sulphur crude	177.4	188.4	15.3	16.2	74.8	82.3
2	Low Sulphur crude	67.9	63.6	5.2	5.2	27.1	25.5
Total crude processed		**245.4**	**251.9**	**20.4**	**21.4**	**101.9**	**107.8**
Percentage share of HS crude in total crude oil processing		**72.3%**	**74.8%**	**74.8%**	**75.6%**	**73.4%**	**76.4%**

6. Quantity and value of crude oil imports

Year	Quantity (MMT)	$ Million	Rs. Crore
2017-18 (P)	220.4	87,776	5,65,951
2018-19 (Estimated)	228.6	108,916	7,07,957

Note: Imports are estimated considering average crude oil price at $ 65/bbl and exchange rate of Rs. 65/$ for 2018-19.

Impact of variation in crude oil price & exchange rate on value of crude oil imports for 2018-2019 :

If crude prices changes by one $/bbl - Crude oil import bill changes by Rs. 10,892 crores

If exchange rate of Rs./$ changes by Rs. 1/$ - Crude oil import bill changes by Rs. 10,892 crores

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

Particulars		2016-17	2017-18	August		April-August	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	Indigenous crude oil processing	33.5	32.8	2.6	2.6	13.8	13.6
2	Products from indigenous crude (93.3% of crude oil processed)	31.3	30.6	2.4	2.4	12.9	12.7
3	Products from fractionators (Including LPG and Gas)	4.3	4.6	0.4	0.4	1.9	2.0
4	Total production from indigenous crude & condensate **(2 + 3)**	35.6	35.2	2.8	2.9	14.8	14.7
5	Total domestic consumption*	194.6	204.9	16.5	16.6	83.9	87.2
% Self-sufficiency (4 / 5)		**18.3%**	**17.2%**	**17.0%**	**17.3%**	**17.6%**	**16.8%**

* Total domestic consumption of petroleum products for FY 2017-18 are provisional

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

Company	Refinery	Installed capacity (1.9.2018) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	August			April-August		
					2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)	2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)
IOCL	Barauni (1964)	6.0	6.5	5.8	0.1	0.4	0.5	2.1	2.7	2.7
	Koyali (1965)	13.7	14.0	13.8	1.2	1.1	1.0	5.2	5.3	5.6
	Haldia (1975)	7.5	7.7	7.7	0.7	0.6	0.6	3.4	3.1	3.4
	Mathura (1982)	8.0	9.2	9.2	0.7	0.3	0.8	4.0	3.4	4.1
	Panipat (1998)	15.0	15.6	15.7	1.1	1.3	1.4	6.2	6.6	6.9
	Guwahati (1962)	1.0	0.86	1.02	0.09	0.08	0.09	0.41	0.40	0.45
	Digboi (1901)	0.65	0.53	0.67	0.06	0.06	0.05	0.28	0.27	0.28
	Bongaigaon(1979)	2.35	2.5	2.4	0.2	0.2	0.2	1.0	0.9	1.0
	Paradip (2016)	15.0	8.2	12.7	1.1	1.2	1.3	5.7	5.6	5.4
	IOCL-TOTAL	**69.2**	**65.2**	**69.0**	**5.3**	**5.4**	**6.0**	**28.2**	**28.3**	**29.8**
CPCL	Manali (1969)	10.5	9.8	10.3	0.9	0.7	1.0	4.3	4.0	4.4
	CBR (1993)	1.0	0.53	0.50	0.03	0.04	0.00	0.20	0.19	0.14
	CPCL-TOTAL	**11.5**	**10.3**	**10.8**	**0.9**	**0.7**	**1.0**	**4.5**	**4.2**	**4.6**
BPCL	Mumbai (1955)	12.0	13.5	14.1	1.2	1.1	1.1	5.5	5.7	6.1
	Kochi (1966)	15.5	11.8	14.1	0.9	1.4	1.5	5.3	6.7	6.8
BORL	Bina (2011)	6.0	6.4	6.7	0.6	0.4	0.2	3.0	2.7	2.5
NRL	Numaligarh (1999)	3.0	2.7	2.8	0.2	0.2	0.3	1.2	1.2	1.2
	BPCL-TOTAL	**36.5**	**34.4**	**37.7**	**3.0**	**3.1**	**2.9**	**15.0**	**16.3**	**16.6**

Company	Refinery	Installed capacity (1.9.2018) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	August			April-August		
					2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)	2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)
ONGC	Tatipaka (2001)	0.066	0.085	0.080	0.005	0.005	0.005	0.031	0.023	0.024
MRPL	Mangalore (1996)	15.0	16.0	16.1	1.0	1.1	1.1	6.4	6.3	6.3
	ONGC-TOTAL	**15.1**	**16.1**	**16.2**	**1.0**	**1.1**	**1.1**	**6.5**	**6.3**	**6.3**
HPCL	Mumbai (1954)	7.5	8.5	8.6	0.7	0.7	0.8	3.6	3.6	3.6
	Visakh (1957)	8.3	9.3	9.6	0.8	0.8	0.8	4.0	3.9	4.1
HMEL	Bathinda (2012)	11.3	10.5	8.8	0.9	0.9	1.0	1.9	4.5	5.2
	HPCL- TOTAL	**27.1**	**28.3**	**27.1**	**2.5**	**2.5**	**2.6**	**9.5**	**12.1**	**12.9**
RIL	Jamnagar (DTA) (1999)	33.0	32.8	33.2	2.8	2.8	2.8	13.6	13.6	13.8
	Jamnagar (SEZ) (2008)	35.2	37.4	37.3	3.2	3.2	3.2	15.9	15.9	15.0
NEL#	Vadinar (2006)	20.0	20.9	20.7	1.8	1.4	1.8	8.7	7.8	8.8
All India		**247.6**	**245.4**	**251.9**	**20.4**	**20.2**	**21.4**	**101.9**	**104.4**	**107.8**

*Targets are as received from oil companies. RIL target for 2018-19 is previous year crude processing; #Nayara Energy Limited (formerly Essar Oil Limited). **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 01.09.2018)

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,192	1,193	688	1,017	5,301	937	-	-	**10328**
	Cap (MMTPA)	58.5	8.4	10.7	11.3	48.6	6.0	-	-	**143.5**
Products	Length (KM)	-	654	-	-	7,909	1,948	3,371	2,688	**16570**
	Cap (MMTPA)	-	1.7	-	-	45.4	16.2	38.1	9.3	**110.6**

***Other** includes GAIL and Petronet India. HPCL and BPCL lubes pipeline included in products pipeline data

10. Gross Refining Margins (GRM) of refineries ($/bbl)					
Company	**Refinery**	**2015-16**	**2016-17**	**2017-18**	**Q1, 2018-19**
IOCL	Barauni	2.93	6.52	6.60	8.78
	Koyali	6.80	7.55	9.44	9.37
	Haldia	3.96	6.80	6.86	9.78
	Mathura	3.30	7.01	7.09	9.03
	Panipat	4.15	7.95	7.74	10.04
	Guwahati **	15.88	22.14	21.88	19.80
	Digboi **	16.17	24.49	24.86	27.07
	Bongaigaon **	11.09	20.15	20.62	25.37
	Paradip #	-0.65	4.22	7.02	8.69
	Weighted average	**5.06**	**7.77**	**8.49**	**10.21**
BPCL	Kochi	6.87	5.16	6.44	6.79
	Mumbai	6.37	5.36	7.26	8.23
	Weighted average	**6.59**	**5.26**	**6.85**	**7.49**
HPCL	Mumbai	8.09	6.95	8.35	6.91
	Visakhapatnam	5.46	5.51	6.55	7.36
	Weighted average	**6.68**	**6.20**	**7.40**	**7.15**
CPCL	Chennai	5.27	6.05	6.42	7.11
MRPL	Mangalore	5.20	7.75	7.54	8.28
NRL	Numaligarh **	23.68	28.56	31.92	30.18
BORL	Bina	11.70	11.80	11.70	15.00
RIL	Jamnagar	10.80	11.00	11.60	10.50
NEL@	Vadinar	10.81	9.14	8.95	*

*Accounts not finalised till date; ** GRM of North Eastern refineries are including excise duty benefit. For GRM excluding excise duty benefit, refer table 11; # Commissioned in February, 2016; @Nayara Energy Limited (formerly Essar Oil Limited)

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

Company	Refinery	2015-16	2016-17	2017-18	Q1, 2018-19
IOCL	Guwahati	1.26	1.12	3.70	3.99
	Digboi	4.16	7.73	8.27	12.42
	Bongaigaon	0.08	6.03	6.22	12.38
NRL	Numaligarh	8.06	8.50	11.43	13.21

12. Production and consumption of petroleum products (Million Metric Tonnes)

Products	2017-18		August 2017		August 2018 (P)		April-August 2017		April-August 2018 (P)	
	Prod	Cons (P)	Prod	Cons (P)	Prod	Cons	Prod	Cons (P)	Prod	Cons
LPG	12.4	23.3	1.0	2.0	1.0	2.1	4.8	9.3	5.3	10.0
MS	37.8	26.2	3.0	2.2	3.0	2.4	15.4	10.9	16.0	11.8
NAPHTHA	20.0	12.5	1.6	1.1	1.8	1.1	8.2	4.8	8.1	5.4
ATF	14.7	7.6	1.1	0.6	1.2	0.7	5.7	3.0	6.5	3.4
SKO	4.3	3.8	0.4	0.3	0.4	0.3	1.9	1.7	1.8	1.5
HSD	108.1	81.1	9.0	5.9	8.9	6.2	43.6	33.5	46.3	34.8
LDO	0.6	0.5	0.04	0.04	0.06	0.05	0.2	0.2	0.2	0.2
LUBES	1.0	3.8	0.1	0.3	0.1	0.3	0.4	1.4	0.4	1.6
FO/LSHS	10.3	6.8	1.1	0.5	1.0	0.6	4.6	2.8	4.0	2.7
BITUMEN	5.3	6.0	0.2	0.2	0.2	0.3	2.0	2.1	2.2	2.5
PET COKE	13.9	26.2	1.1	2.6	1.2	2.1	5.6	11.2	5.9	10.1
OTHERS	26.2	7.1	2.0	0.6	2.7	0.6	9.5	3.0	12.7	3.1
ALL INDIA	**254.3**	**204.9**	**20.6**	**16.5**	**21.6**	**16.6**	**101.9**	**83.9**	**109.5**	**87.2**
Growth (%)	**4.5%**	**5.3%**	**7.5%**	**-2.0%**	**5.1%**	**0.8%**	**1.0%**	**1.9%**	**7.5%**	**3.9%**

Note: Prod - Production; Cons - Consumption

13. LPG consumption (Thousand Metric Tonne)

LPG category	2016-17	2017-18 (P)	August 2018 (P)			April-August (P)		
			2017-18	2018-19	Gr (%)	2017-18	2018-19	Gr (%)
1. PSU Sales :								
LPG-Packed Domestic	18871.4	20,351.8	1781.9	1840.8	3.3	8,100.6	8,716.3	7.6
LPG-Packed Non-Domestic	1775.9	2,085.8	188.1	197.0	4.7	802.3	924.5	15.2
LPG-Bulk	364.3	354.4	39.0	26.1	-33.0	152.4	140.0	-8.2
Auto LPG	167.3	184.3	16.7	16.1	-3.6	77.6	77.5	-0.1
Sub-Total (PSU Sales)	**21,178.9**	**22,976.4**	**2,025.6**	**2,080.0**	**2.7**	**9,132.9**	**9,858.3**	**7.9**
2. Direct Private Imports*	429.3	367.0	23.2	27.3	17.7	175.6	133.9	-23.7
Total (1+2)	**21,608.2**	**23,343.3**	**2,048.8**	**2,107.3**	**2.9**	**9,308.5**	**9,992.2**	**7.3**

*April & June 2018 import data are actuals provided by DGCIS and July & August 2018 import data are prorated on the basis of July 2017 to June 2018 actual data provided by DGCIS.

14. Kerosene allocation vs upliftment (Kilo Litres)

Product	2015-16		2016-17		2017-18		Q1, 2018-19 (P)	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
PDS Kerosene	86,85,384	85,36,752	69,33,030	66,78,447	50,21,828	46,69,164	11,74,808	11,04,241

15. Industry marketing infrastructure (as on 01.09.2018) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL	NEL[##]	SHELL	Others	Total
POL Terminal/ Depots **(Nos.)**[$]	125	78	83	18	2	-	6	**312**
Aviation Fuel Stations **(Nos.)**[@]	111	52	42	28	-	-	1	**234**
Retail Outlets (total) **(Nos.)**[^]	27,281	14,527	15,191	1,400	4,756	114	6	**63,275**
out of which, Rural ROs	7,656	2,643	3,361	127	1,709	15	-	**15,511**
SKO/LDO agencies **(Nos.)**	3,892	1,001	1,638	-	-	-	-	**6,531**
LPG Distributors (total) **(Nos.) (PSUs only)**	10,666	5,337	5,203	-	-	-	-	**21,206**
LPG Bottling plants **(Nos.) (PSUs only)**[#]	91	50	48	-	-	-	1	**190**
LPG Bottling capacity **(TMTPA) (PSUs only)**[&]	9,434	3,933	4,047	-	-	-	30	**17,444**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	11.5	6.3	6.7	-	-	-	-	**24.5**

[$](RIL= 5 terminals and 13 mini depots, Others=4 MRPL & 2 NRL); [@](Others=ShellMRPL -1); [^](Others=MRPL-6); [#](Others=NRL-1); [&](Others=NRL-30); [##]Nayara Energy Limited (formerly Essar Oil Limited).

16. Natural gas at a glance

(MMSCM)

Details	2016-17	2017-18	August			April-August		
			2017-18	2018-19 (Target)	2018-19 (P)	2017-18	2018-19 (Target)	2018-19 (P)
(a) Gross production	31,897	32,648	2,773	3,036	2,789	13,690	14,716	13,572
- ONGC	22,088	23,429	1,953	2,206	2,062	9,738	10,660	10,013
- Oil India Limited (OIL)	2,937	2,881	261	272	237	1,235	1,328	1,137
- Private / Joint Ventures (JVs)	6,872	6,338	558	558	490	2,717	2,728	2,421
(b) Net availability (excluding flare gas and loss)	30,848	31,731	2,678		2,719	10,873		13,246
(c) LNG import	24,686	26,328	2,101		2,308	9,952		11,754
(d) Total consumption including internal consumption (b+c)	55,534	58,059	4,779		5,028	20,826		24,999
(e) Total consumption **(in BCM)**	55.5	58.1	4.8		5.0	20.8		25.0
(f) Import dependency based on consumption (%), {c/d*100}	44.5	45.3	44.0		45.9	47.8		47.0

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

17. 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	August 2018 (P)	57.2	MMSCM
Production of CBM gas	April-August 2018 (P)	298.6	MMSCM

18. Major natural gas pipeline network as on 01.09.2018							
Nature of pipeline		**GAIL**	**Reliance**	**GSPL**	**ARN**	**IOCL**	**Total**
Natural gas	Length (KM)	11,410	1,784	2,620	817	140	**16,771**
	Cap (MMSCMD)*	229.5	83.5	43.0	3	9.5	**368.7**

*GAIL's pipeline capacity is inclusive of CJPL (5 MMSCMD) and DBPL (31 MMSCMD) which is the extension of DVPL-2 / VDPL.

19. Gas pipelines under execution / construction as on 01.09.2018				
Network/ Region	**Entity**	**Length sanctioned (KM)**	**Design capacity (MMSCMD)**	**Pipeline size**
Kochi-Kottanad-Bengaluru-Mangalore	GAIL (India) Ltd	1,056	16	24"/18"/12"
Dabhol - Bengaluru (DBPL)	GAIL (India) Ltd	302	16	36"/30"/24"/18"
Jagdishpur- Haldia-Bokaro-Dhamra	GAIL (India) Ltd	2,539	16	30”/24"/18"/12”/8”/4”
Mallavaram – Bhopal - Bhilwara	GSPC India Transco Ltd	2,042	78.25	42”/36"/30"/24"/18"/12”
Mehsana - Bathinda	GSPC India Gasnet Ltd	2,052	77.11	36”/24”/18”/12”
Bathinda - Jammu - Srinagar	GSPC India Gasnet Ltd	725	42.42	24”/18”/16”/12”/8”/6”
Kakinada - Vizag - Srikakulam	AP Gas Distribution Co.	391	90	24”/18”/8”/4”
Ennore - Nellore	Gas Transmission India Pvt.	250	36	24”/18”
Ennore-Thiruvallur-Bengaluru-Puducherry-Nagapattinam-Madurai-Tuticorin	Indian Oil Corporation Limited	1,385	84.67	28”/24”/16”/12” /10”
Jaigarh-Mangalore	H-Energy Pvt. Ltd	635	17	24"
Total		**11,377**		

20. Existing LNG terminals			
Location	**Promoters**	**Capacity (MMTPA) as on 01.09.2018**	**Capacity utilisation in % April-August 2018 (P)**
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	109.8
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	95.2
Dabhol	RGPPL (GAIL - NTPC JV)	1.692 MMTPA*	3.9
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	10.1
Total Capacity		**26.7 MMTPA**	

* To increase to 5 MMTPA with breakwater

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.09.2018

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Andhra Pradesh	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	Kakinada, Vijayawada, East/ West Godavari, Krishna	26	19,369	16,213	62	1
Assam	Assam Gas Co. Ltd	Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat	0	0	31,943	1,061	411
Chandigarh	IndianOil- Adani Gas	Chandigarh	4	4,500	45,006	0	0
Dadra & Nagar Haveli	Gujarat Gas Ltd.	Dadra & Nagar Haveli	3	843	1,084	9	10
Daman and Diu	Indian Oil- Adani Gas	Daman and Diu	2	750	2,755	23	9
Delhi	Indraprastha Gas Ltd .	NCT of Delhi (Including Noida & Ghaziabad)	447	10,43,639	9,36,802	2,277	1,330
Gujarat	Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Gas Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd, IRM Energy Ltd.	Gandhinagar, Mehsana, Sabarkantha and Patan, Surat-Bharuch-Ankleswar GA, Nadiad GA,Navsari GA, Rajkot GA, Surendra Nagar GA, Hazira GA, Valsad GA, Jamnagar GA, Bhavnagar GA, Kutch (West) GA, UT of Dadra and Nagar Haveli GA, Amreli District GA, Dahej-Vagra Taluka GA, Dahod District GA, Panchmahal District GA, Anand (Exclusive area authorised) district GA, Ahmedabad (Excluding area already authorised) district GA, Vadodara, Vadodara Rural and Ahmedabad Urban, Anand and Palanpur	465	8,58,102	19,23,576	18,152	4,671

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.09.2018

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Haryana	Haryana City Gas Distribution Ltd, Adani Gas Limited, GAIL Gas Ltd., Indraprastha Gas Ltd. , Indian Oil-Adani Gas Pvt. Ltd.	Sonepat, Faridabad, Gurgaon, Rewari, Panipat	53	1,44,940	87,095	252	387
Karnataka	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	Bengaluru, Tumkur, Belgaum	9	560	7,701	76	35
Kerala	Indian Oil- Adani Gas	Ernakulam	4	250	12060	3	0
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampur	31	30,886	35,967	107	149
Maharashtra	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, Gujarat Gas Limited	Mumbai, Greater Mumbai including Thane City, Mira Bhayender, Navi Mumbai, Ambernath, Bhiwandi, Kalyan, Dombivli, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Pune City including Pimpri Chinchwad along with adjoining contiguous areas of Hinjewadi, Chakan & Talegaon GA, Raigarh District and Palghar and Thane Rural	274	8,48,693	12,92,974	3,885	237
Odisha	GAIL (India) Ltd.	Bhubaneswar	4	1,384	148	0	0
Punjab	IRM Energy Pvt. Ltd.	Fatehgarh Sahib	1	263	90	1	4

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.09.2018

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Rajasthan	Rajasthan State Gas Limited	Kota, Neemrana & Kukas	5	7,751	653	4	14
Telangana	Bhagyanagar Gas Ltd.	Hyderabad	33	24,555	8,094	9	9
Tripura	Tripura Natural Gas Co. Ltd	Agartala	6	10,902	36,373	415	49
Uttar Pradesh	GAIL Gas Ltd, Sanwariya Gas Ltd, Green Gas Ltd, Central U.P. Gas Ltd, Siti Energy Ltd, Adani Gas Ltd, Indian Oil-Adani Gas Pvt. Ltd.	Meerut, Dibiyapur, Mathura, Agra, Kanpur, Bareilly, Lucknow, Moradabad, Firozabad Geographical Area (TTZ), Khurja and Allahabad	89	1,43,674	1,31,862	403	652
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd.	Udham Singh Nagar	1	0	2,104	0	0
West Bengal	Great Eastern Energy Corporation Ltd.	Kultora, Asansol, Raniganj, Durgapur	7	3,564	0	0	0
Total			**1,464**	**31,44,625**	**45,72,500**	**26,739**	**7,968**

22. 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

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

International FOB prices/ Exchange rates ($/bbl)

Particulars	2016-17	2017-18	Apr-Aug'18
Crude oil (Indian Basket)	47.56	56.43	72.85
Petrol	58.10	67.83	81.76
Diesel	56.59	68.19	85.61
Kerosene	56.81	67.65	85.65
LPG ($/MT)	393.17	485.92	537.60
FO ($/MT)	258.92	327.50	428.69
Naphtha ($/MT)	415.17	494.73	623.11
Exchange (Rs./$)	67.09	64.45	67.87

Customs, excise duty & GST rates (w.e.f. 02.02.2018)

Product	Basic customs duty #	Excise duty	GST rates
Petrol	2.50%	Rs 19.48/Ltr	**
Diesel	2.50%	Rs 15.33/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)	5.00%		18.00%
ATF	Nil	14% *	**
Crude Oil	Nil+Rs.50/ -MT as NCCD	Nil+Cess@ 20% +Rs.50 /-MT NCCD	**

*2% for scheduled commuter airlines from regional connectivity scheme airports; ** Crude oil, Petrol, Diesel, ATF and Natural Gas are outside GST levy; # Social welfare surcharge @ 3% on petrol and diesel and 10% on other products is levied on aggregate duties of Customs excluding CVD in liue 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.

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

Particulars	Petrol*	Diesel*
Price charged to dealers (excluding Excise Duty and VAT)	41.48	45.09
Excise Duty	19.48	15.33
Dealer Commission (Average)	3.65	2.52
VAT (incl VAT on dealer commission)	17.45	10.84
Retail selling price (RSP) -Rounded	**82.06**	**73.78**
Particulars	**PDS SKO***	**Sub. Dom LPG***
Price before taxes and dealer/distributor commission	23.55	731.60
Dealer/distributor commission	2.04	49.35
GST (incl GST on dealer/distributor commission)	1.28	39.05
Retail Selling Price	**26.87**	**820.00**
Less: Cash Compensation on LPG to consumers under DBTL		320.49
Effective cost to consumer after subsidy		**499.51**

*Petrol and diesel at Delhi as per IOCL are as on 17th September 2018. SKO at Mumbai is as on 16th September 2018 and Sub. Dom LPG at Delhi is as on 1st September 2018.

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	0.43	180	0.55	240
Domestic LPG	9.94	1330	8.38	1,120
Total	-	**1,510**	-	**1,360**

Note: The above calculations are based on RTP for September 2018.

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

Under-recoveries/subsidy & burden sharing

PDS Kerosene

Product	2016-17	2017-18	Q1, 2018-19
	Rs./Crore		
Under Recovery	7,595	4,672	1,660
Subsidy under DBTK #	11	113	0
Total	**7,605**	**4,785**	**1,660**

#DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanisam for direct transfer of subsidy paid to States/UTs.

Domestic LPG under DBTL (Direct benefit transfer for LPG)

Particulars	2016-17	2017-18	Q1, 2018-19
	Rs./Crore		
DBTL subsidy	12,905	20,880	5,026
PME &IEC^	-	25	92
Total	**12,905**	**20,905**	**5,118**

PMUY (Pradhan Mantri Ujjwala Yojana)

Particulars	2016-17	2017-18	Q1, 2018-19
	Rs./Crore		
PMUY claims	2,999	2,496	1,372
PME & IEC^	-	63	34
Total	**2,999**	**2,559**	**1,406**

^ on payment basis

Sales & profit of petroleum sector (Rs. Crores)

Particulars	2017-18		Q1, 2018-19	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	1,48,473	27,231	47,693	8,106
Downstream Companies (PSU)	10,20,395	35,622	3,03,769	10,844
Standalone Refineries (PSU)	1,20,430	5,181	29,456	1,008
Private-RIL	3,15,357	33,612	99,318	8,820

Borrowings of OMCs (Rs. Crores), As on

Company	Mar\`16*	Mar\`17	Mar\`18
IOCL	54,820	58,030	44,797
BPCL	23,159	23,351	19,683
HPCL	21,250	20,991	14,842

*Regrouped as per Ind AS

Petroleum sector contribution to Central/State Govt.

Particulars	2016-17	2017-18	Q1, 2018-19
Central Government	3,34,534	3,43,858	66,379
% of total revenue receipts	24%	23%	-
State Governments	189770	2,09,155	57,685
% of total revenue receipts	9%	9%	-
Total (Rs. Crores)	**5,24,304**	**5,53,013**	**1,24,064**

Subsidy as a percentage of GDP (at current prices)

Particulars	2015-16	2016-17	2017-18
Petroleum subsidy	0.25	0.18	0.17

Note: GDP figure for 2015-16 and 2016-17 are Revised Estimates and 2017-18 are Provisional Estimates

24. Capital expenditure of PSU oil companies					
					(Rs in crores)
Company	2015-16 (P)	2016-17 (P)	2017-18 (P)	2018-19	
				Target	April-August (P)
ONGC Ltd	29,502	28,010	72,383	32,077	10,256
ONGC Videsh Ltd (OVL)	6,783	18,360	6,240	5,886	1,699
Oil India Ltd (OIL)	3,550	10,514	8,395	4,300	1,240
GAIL (India) Ltd	1,880	2,180	3,613	4,722	1,999
Indian Oil Corp. Ltd. (IOCL)	14,368	21,918	20,345	22,862	10,659
Hindustan Petroleum Corp. Ltd (HPCL)	5,459	5,861	7,134	8,425	2,708
Bharat Petroleum Corp. Ltd (BPCL)	10,926	16,810	8,161	7,400	3,639
Mangalore Refinery & Petrochem Ltd (MRPL)	1,550	614	1,281	744	256
Chennai Petroleum Corp. Ltd (CPCL)	1,318	1,293	963	1,010	400
Numaligarh Refinery Ltd (NRL)	237	500	387	428	122
Balmer Lawrie Co. Ltd (BL)	38	73	78	125	51
Engineers India Ltd (EIL) #	-	-	-	1356	59
Total	**75,611**	**106,133**	**128,981**	**89,335**	**33,087**

(P) Provisional; Includes expenditure on investment in JV/subsidiaries.

Included from 2018-19.

25. 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
ATF	1	1.288	8.10
Light Diesel Oil (LDO)	1	1.172	7.37
Furnace Oil (FO)	1	1.071	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	35.31 Cubic Feet	1 MMBTU	25.2 SCM @10000 kcal/SCM
1 BCM/year of Gas	2.74 MMSCMD	GCV (Gross Calorific Value)	10,000 kcal/SCM
1 TCF of Gas Reserve	3.88 MMSCMD	NCV (Net Calorific Value)	90% of GCV
1 MMTPA of LNG	3.60 MMSCMD	Gas required for 1 MW power generation	4,541 SCM/day
1 MT of LNG	1,314 SCM	Power generation from 1 MMSCMD of gas	220 MW