Ready Reckoner

Snapshot of India's Oil & Gas data

October, 2018

Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

As on 20.11.2018

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Highlights for the month

- Indigenous crude oil and condensate production during October 2018 was lower by 5% than that of October 2017. PSC fields registered de-growth of 2.9% during the month over October 2017. PSU companies OIL and ONGC registered de-growth of 1.4% and 6.6% respectively during the month over October 2017. On cumulative basis de-growth of 3.6% was registered during April-October 2018 over the corresponding period of the previous year.
- Total crude oil processed during October 2018 was 21.9 MMT, which was a decrease of 1% over October 2017. PSU/JV refineries registered a decrease of 0.9% while private refineries registered a decrease of 1.2%. On cumulative basis an increase of 4.1% was registered in the total crude oil processed during April-October 2018 over the corresponding period of the previous year. Refineries processed 74.1% high sulphur crude oil during October 2018 against 75.6% during October 2017. Installed capacity of BORL Bina refinery increased to 7.8 MMTPA on 01.11.2018 from 6.0 MMTPA.
- Production of petroleum products during October 2018 saw a growth of 1.2% over October 2017. On cumulative basis an increase of 5.8% was registered in the total production of petroleum products during April-October 2018 over the corresponding period of the previous year.
- Crude oil imports during October 2018 and April-October 2018 increased by 10.5% and 6.4% respectively as compared to the same period of the previous year.
- Product imports decreased by 19.8% and 9.1% during October 2018 and April-October 2018 respectively over the corresponding period of the previous year. Decrease in POL product imports during April-October 2018 was due to decrease in imports of HSD and petcoke.
- Exports of products decreased by 4.3% and 6.0% during October 2018 and April-October 2018 respectively over the corresponding period of the previous year. Decrease in exports during April-October 2018 was mainly due to decrease in exports of MS, naphtha, HSD, fuel oil, bitumen and VGO.
- Petroleum product consumption registered a growth of 4% during October 2018 and a cumulative growth of 3.5% during April-October 2018. Last year during October 2017, a growth of 4.3% and cumulative growth of 3.5% during April-October 2017 was observed. Except for SKO (-7.3%), lubes & greases (-4.9%), FO/LSHS (-0.7%) and petcoke (-11%), all other products registered positive growth during October 2018.

•	Total LPG consumption continuously for the last sixty two months in a row recorded a positive growth of 4.8% during October 2018 and a cumulative growth of 6.9% during April-October 2018. This year, during April-October 2018, 31.4 lakh DBCs and 272.8 lakh new connections were released out of which 217.2 lakh were released under PMUY. Under PMUY, nearly 111.9 lakh new connections have been released more during the current year in this period as compared to last year. Total 573.2 lakh connections were released under PMUY till 31.10.2018 since inception. During October 2018, out of the five regions, Northern region had the highest share in consumption of 30.7% followed by Southern region at 28.7%, Western region at 22.5%, Eastern region at 15.4% and North Eastern region at 2.7%. North Eastern region had the highest growth of 17.8% in total LPG consumption during October 2018.
•	SKO consumption registered a de-growth of 7.3% during October 2018 and cumulative de-growth of 9.7% during April-October 2018. Last year during October 2018, a de-growth of 18.1% and cumulative de-growth of 33.7% during April-October 2017 was observed. The cumulative reduction in PDS SKO allocation was 12.2% during Q1 & Q2, 2018-19 compared to the same period of the previous year.
•	Gross production of natural gas during October 2018 was 2797.7 MMSCM which was lower by 0.4% compared with the corresponding month of the previous year. The cumulative gross production of natural gas during April-October 2018 of 19052.0 MMSCM was lower by 0.9% compared with the corresponding period of the previous year .
•	LNG import during October 2018 was 2281.4 MMSCM which was 5.8% lower than the corresponding month of the previous year. The cumulative import of 16465.0 MMSCM during April-October 2018 was higher by 12.6% compared with the corresponding period of the previous year.
•	The price of Brent Crude averaged $81.15/bbl during October 2018 as against $78.85/bbl during September 2018 and $57.36/bbl during October 2017. The Indian basket crude price averaged $80.08/bbl during October 2018 as against $77.88/bbl during September 2018 and $ 56.06/bbl during October 2017.
•	The import bill of crude oil is estimated to increase by 42% from $88 billion in 2017-18 to $125 billion in 2018-19 considering actuals upto September 2018 and Indian basket crude oil price at $77.88/bbl and exchange rate at Rs. 72.22/$ for October 2018-March 2019.

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	141.6 1st AE (Kharif)
		Growth %	3.1	-4.9	-0.2	9.4	3.5	0.6$
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	October		April-October	
					2017-18	2018-19 (P)	2017-18	2018-19 (P)
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.6	4.4	4.1#	4.5# QE	2.6*	5.1*
6	Imports	$ Billion	384.4	465.6	37.5	44.1	259.9	302.5
7	Exports	$ Billion	275.9	303.5	22.9	27.0	168.6	191.0
8	Trade Balance	$ Billion	-108.5	-162.1	-14.6	-17.1	-91.3	-111.5
9	Foreign Exchange Reserves @	$ Billion	370.0	424.4	398.8	392.1	-	-

$Agricultural production (Kharif), 2017-18=140.73 (4th AE); IIP is for the month of #September and *April-September; @2016-17-as on March 31, 2017, 2017-18-as on March 30, 2018, October 2017- as on October 27, 2017 and October 2018-as on October 26, 2018; E-Estimates; AE-Advanced Estimates; RE-Revised Estimates; PE-Provisional Estimates; FE-Final Estimates; QE-Quick Estimates.

Source: Ministry of Commerce & Industry, 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	October		April-October	
					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	21.1	20.3
2	Consumption of petroleum products	MMT	194.6	206.2	17.3	18.0	118.0	122.1
3	Production of petroleum products	MMT	243.5	254.3	22.4	22.6	145.0	153.4
4	Gross natural gas production	MMSCM	31,897	32,648	2,808	2,798	19,221	19,052
5	Natural gas consumption	MMSCM	55,534	58,059	5,159	5,005	33,308	35,051
6	Imports & exports:							
	Crude oil imports	MMT	213.9	220.4	19.0	21.0	125.8	133.9
		$ Billion	70.2	87.8	7.5	11.7	45.1	70.3
	Petroleum products (POL) imports	MMT	36.3	35.5	3.3	2.6	21.1	19.2
		$ Billion	10.6	13.6	1.3	1.3	7.2	9.6
	Gross petroleum imports (Crude + POL)	MMT	250.2	255.9	22.3	23.7	146.9	153.1
		$ Billion	80.8	101.4	8.9	13.0	52.3	79.9
	Petroleum products exports	MMT	65.5	66.8	6.0	5.7	38.8	36.4
		$ Billion	29.0	34.9	3.1	4.0	18.6	24.4
	LNG imports	MMSCM	24,686	26,328	2,422	2,281	14,617	16,465
		$ Billion	6.1	7.7	0.7	0.9	3.8	5.8
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.0	21.8	23.6	29.5	20.1	26.4
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	11.5	13.7	14.9	11.1	12.8
9	Import dependency of crude (on consumption basis)	%	81.7	82.9	82.1	83.5	82.6	83.3

Crude oil imports ($ Billion) during 2018-19 does not include value of crude imported at ISPRL, Mangalore.

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2016-17	2017-18	October			April-October		
			2017-18	2018-19 (Target)*	2018-19 (P)	2017-18	2018-19 (Target)*	2018-19 (P)
ONGC	20.9	20.8	1.8	2.0	1.6	12.3	13.2	11.6
Oil India Limited (OIL)	3.3	3.4	0.3	0.3	0.3	2.0	2.1	2.0
Private / Joint Ventures (JVs)	10.4	9.9	0.8	0.9	0.8	5.8	6.0	5.7
Total Crude Oil	**34.5**	**34.0**	**2.9**	**3.1**	**2.7**	**20.1**	**21.3**	**19.3**
ONGC condensate	1.4	1.5	0.1		0.1	0.8		0.9
PSC condensate	0.1	0.2	0.01		0.02	0.11		0.13
Total condensate	**1.5**	**1.6**	**0.1**	**0.0**	**0.1**	**1.0**	**0.0**	**1.0**
Total (Crude + Condensate) (MMT)	**36.0**	**35.7**	**3.0**	**3.1**	**2.9**	**21.1**	**21.3**	**20.3**
Total (Crude + Condensate) (Million Bbl)	**263.9**	**261.6**	**22.3**	**23.0**	**21.1**	**154.4**	**156.0**	**148.8**

*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	October		April-October	
			2017-18	2018-19 (P)	2017-18	2018-19 (P)
Total domestic production (MMTOE)	67.9	68.3	5.8	5.7	40.3	39.3
Overseas production (MMTOE)	17.4	21.7	1.8	2.0	12.6	14.0
Overseas production as percentage of domestic production	**25.6%**	**31.8%**	**31.3%**	**35.4%**	**31.2%**	**35.6%**

Source: ONGC Videsh, GAIL, OIL , IOCL, HPCL & BPRL; **Note:** IOCL data for 2016-17 & 2017-18 revised.

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

Details		2016-17	2017-18	October		April-October	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	High Sulphur crude	177.4	188.4	16.7	16.2	107.2	114.4
2	Low Sulphur crude	67.9	63.6	5.4	5.7	37.4	36.2
Total crude processed		**245.4**	**251.9**	**22.1**	**21.9**	**144.6**	**150.5**
Percentage share of HS crude in total crude oil processing		**72.3%**	**74.8%**	**75.6%**	**74.1%**	**74.1%**	**76.0%**

6. Quantity and value of crude oil imports

Year	Quantity (MMT)	$ Million	Rs. Crore
2017-18 (P)	220.4	87,803	5,66,450
2018-19 (Estimated)	228.6	124,738	8,81,282

Note: April - September, 2018 imports are based on actuals and for October 2018- March 2019 imports are estimated at average price of Indian basket crude oil for September 2018 i.e. $77.88/bbl and average exchange rate for September 2018 i.e. Rs.72.22/$.

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

If crude price changes by one $/bbl - Crude oil import bill changes by Rs. 6,158 crores

If exchange rate of Rs./$ changes by Rs. 1/$ - Crude oil import bill changes by Rs. 6,639 crores

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

Particulars		2016-17	2017-18	October		April-October	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	Indigenous crude oil processing	33.5	32.8	2.9	2.7	19.2	18.8
2	Products from indigenous crude (93.3% of crude oil processed)	31.3	30.6	2.7	2.5	17.9	17.5
3	Products from fractionators (Including LPG and Gas)	4.3	4.6	0.4	0.4	2.7	2.9
4	Total production from indigenous crude & condensate **(2 + 3)**	35.6	35.2	3.1	3.0	20.6	20.4
5	Total domestic consumption	194.6	206.2	17.3	18.0	118.0	122.1
% Self-sufficiency (4 / 5)		**18.3%**	**17.1%**	**17.9%**	**16.5%**	**17.4%**	**16.7%**

8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)										
Company	Refinery	Installed capacity (1.11.2018) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	October			April-October		
					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	0.5	0.6	0.6	3.0	3.8	3.8
	Koyali (1965)	13.7	14.0	13.8	1.2	1.2	1.3	7.6	7.8	7.8
	Haldia (1975)	7.5	7.7	7.7	0.7	0.7	0.7	4.8	4.4	4.7
	Mathura (1982)	8.0	9.2	9.2	0.8	0.8	0.9	5.1	4.9	5.7
	Panipat (1998)	15.0	15.6	15.7	1.4	1.3	1.4	8.9	8.6	9.6
	Guwahati (1962)	1.0	0.9	1.0	0.10	0.08	0.07	0.6	0.6	0.6
	Digboi (1901)	0.65	0.5	0.7	0.06	0.06	0.06	0.4	0.4	0.4
	Bongaigaon(1979)	2.35	2.5	2.4	0.2	0.2	0.2	1.4	1.2	1.4
	Paradip (2016)	15.0	8.2	12.7	1.1	1.2	1.3	8.0	8.1	7.9
	IOCL-TOTAL	**69.2**	**65.2**	**69.0**	**6.1**	**6.1**	**6.4**	**39.7**	**39.7**	**41.9**
CPCL	Manali (1969)	10.5	9.8	10.3	0.9	0.9	0.6	5.9	5.8	6.0
	CBR (1993)	1.0	0.5	0.5	0.04	0.04	0.04	0.3	0.3	0.2
	CPCL-TOTAL	**11.5**	**10.3**	**10.8**	**1.0**	**1.0**	**0.7**	**6.2**	**6.1**	**6.2**
BPCL	Mumbai (1955)	12.0	13.5	14.1	1.0	1.1	1.3	7.7	7.9	8.5
	Kochi (1966)	15.5	11.8	14.1	1.2	1.1	1.3	7.7	9.1	9.5
BORL	Bina (2011)	7.8	6.4	6.7	0.6	0.5	0.1	1.7	3.2	2.6
NRL	Numaligarh (1999)	3.0	2.7	2.8	0.2	0.2	0.3	4.2	1.7	1.7
	BPCL-TOTAL	**38.3**	**34.4**	**37.7**	**3.0**	**3.0**	**2.9**	**21.3**	**21.9**	**22.2**

Company	Refinery	Installed capacity (1.11.2018) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	October			April-October		
					2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)	2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)
ONGC	Tatipaka (2001)	0.066	0.09	0.08	0.007	0.005	0.005	0.05	0.03	0.03
MRPL	Mangalore (1996)	15.0	16.0	16.1	1.5	1.5	1.5	9.0	9.1	9.1
	ONGC-TOTAL	**15.1**	**16.1**	**16.2**	**1.5**	**1.5**	**1.5**	**9.1**	**9.1**	**9.2**
HPCL	Mumbai (1954)	7.5	8.5	8.6	0.7	0.7	0.7	5.0	4.9	5.1
	Visakh (1957)	8.3	9.3	9.6	0.9	0.8	0.9	5.7	5.5	5.8
HMEL	Bathinda (2012)	11.3	10.5	8.8	1.0	0.9	1.1	3.9	6.3	7.3
	HPCL- TOTAL	**27.1**	**28.3**	**27.1**	**2.6**	**2.5**	**2.6**	**14.6**	**16.8**	**18.1**
RIL	Jamnagar (DTA) (1999)	33.0	32.8	33.2	2.9	2.9	2.8	19.3	19.3	19.2
	Jamnagar (SEZ) (2008)	35.2	37.4	37.3	3.3	3.3	3.2	22.3	22.3	21.4
NEL#	Vadinar (2006)	20.0	20.9	20.7	1.7	1.4	1.8	12.1	10.6	12.3
All India		**249.4**	**245.4**	**251.9**	**22.1**	**21.6**	**21.9**	**144.6**	**145.8**	**150.5**

*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 01.11.2018)

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	9.1	11.3	48.6	6.0	-	-	**141.9**
Products	Length (KM)	-	654	-	-	7,909	2,241	3,371	2,395	**16570**
	Cap (MMTPA)	-	1.7	-	-	45.4	19.5	38.1	6.0	**110.6**

***Others** 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**	**H1, 2018-19**
IOCL	Barauni	2.93	6.52	6.60	6.83
	Koyali	6.80	7.55	9.44	7.73
	Haldia	3.96	6.80	6.86	7.67
	Mathura	3.30	7.01	7.09	7.54
	Panipat	4.15	7.95	7.74	8.39
	Guwahati **	15.88	22.14	21.88	18.52
	Digboi **	16.17	24.49	24.86	25.70
	Bongaigaon **	11.09	20.15	20.62	22.09
	Paradip #	-0.65	4.22	7.02	6.99
	Weighted average	**5.06**	**7.77**	**8.49**	**8.45**
BPCL	Kochi	6.87	5.16	6.44	6.23
	Mumbai	6.37	5.36	7.26	6.85
	Weighted average	**6.59**	**5.26**	**6.85**	**6.52**
HPCL	Mumbai	8.09	6.95	8.35	6.20
	Visakhapatnam	5.46	5.51	6.55	5.69
	Weighted average	**6.68**	**6.20**	**7.40**	**5.93**
CPCL	Chennai	5.27	6.05	6.42	5.98
MRPL	Mangalore	5.20	7.75	7.54	6.29
NRL	Numaligarh **	23.68	28.56	31.92	27.73
BORL	Bina	11.70	11.80	11.70	13.70
RIL	Jamnagar	10.80	11.00	11.60	9.90
NEL@	Vadinar	10.81	9.14	8.95	*

*Data not available; ** 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	H1, 2018-19
IOCL	Guwahati	1.26	1.12	3.70	1.51
	Digboi	4.16	7.73	8.27	10.87
	Bongaigaon	0.08	6.03	6.22	8.73
NRL	Numaligarh	8.06	8.50	11.43	12.06

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

Products	2017-18		Oct-2017		Oct-2018 (P)		Apr-Oct 2017		Apr-Oct 2018 (P)	
	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.4	23.3	1.1	2.0	1.1	2.1	6.9	13.2	7.4	14.1
MS	37.8	26.2	3.2	2.2	3.3	2.3	21.7	15.3	22.4	16.4
NAPHTHA	20.0	12.9	1.9	1.2	1.8	1.2	11.7	7.2	11.6	8.1
ATF	14.7	7.6	1.2	0.6	1.3	0.7	8.1	4.3	9.0	4.8
SKO	4.3	3.8	0.4	0.3	0.3	0.3	2.6	2.3	2.4	2.1
HSD	108.1	81.1	9.4	6.5	9.5	7.0	61.9	46.1	64.5	47.8
LDO	0.6	0.5	0.04	0.03	0.09	0.05	0.3	0.3	0.4	0.3
LUBES	1.0	3.9	0.1	0.3	0.1	0.3	0.6	2.0	0.6	2.3
FO/LSHS	10.3	6.7	1.0	0.6	0.9	0.6	6.4	4.0	5.8	3.8
BITUMEN	5.3	6.1	0.3	0.4	0.4	0.6	2.6	2.8	2.9	3.4
PET COKE	13.9	25.7	1.2	2.3	1.3	2.0	8.0	15.9	8.4	13.2
OTHERS	26.2	8.3	2.4	0.8	2.8	0.9	14.2	4.6	18.1	5.8
ALL INDIA	**254.3**	**206.2**	**22.4**	**17.3**	**22.6**	**18.0**	**145.0**	**118.0**	**153.4**	**122.1**
Growth (%)	**4.4%**	**5.9%**	**6.5%**	**4.3%**	**1.2%**	**4.0%**	**2.7%**	**3.5%**	**5.8%**	**3.5%**

Note: Prod - Production; Cons - Consumption

13. LPG consumption (Thousand Metric Tonne)

LPG category	2016-17	2017-18	October			April-October		
			2017-18	2018-19 (P)	Gr (%)	2017-18	2018-19 (P)	Gr (%)
1. PSU Sales :								
LPG-Packed Domestic	18871.4	20,351.8	1725.4	1799.0	4.3	11,518.4	12,315.7	6.9
LPG-Packed Non-Domestic	1775.9	2,085.8	181.2	197.5	9.0	1,156.8	1,311.8	13.4
LPG-Bulk	364.3	355.4	28.9	26.5	-8.3	210.6	192.8	-8.4
Auto LPG	167.3	184.4	15.6	14.6	-6.4	108.9	107.0	-1.7
Sub-Total (PSU Sales)	**21,178.9**	**22,977.4**	**1,951.0**	**2,037.5**	**4.4**	**12,994.7**	**13,927.3**	**7.2**
2. Direct Private Imports*	429.3	364.5	19.4	27.2	40.1	218.1	191.3	-12.3
Total (1+2)	**21,608.2**	**23,341.8**	**1,970.4**	**2,064.7**	**4.8**	**13,212.8**	**14,118.6**	**6.9**

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

14. Kerosene allocation vs upliftment (Kilo Litres)

Product	2015-16		2016-17		2017-18		H1, 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	23,02,452	21,55,933

15. Industry marketing infrastructure (as on 01.11.2018) (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.)**[@]	113	52	42	28	-	-	1	**236**
Retail Outlets (total) **(Nos.),**[^]	27,377	14,593	15,287	1,400	4,895	116	6	**63,674**
out of which Rural ROs	7,708	2,662	3,406	127	1,752	15	-	**15,670**
SKO/LDO agencies **(Nos.)**	3,891	1,001	1,638	-	-	-	-	**6,530**
LPG Distributors (total) **(Nos.) (PSUs only)**	11,040	5,521	5,392	-	-	-	-	**21,953**
LPG Bottling plants **(Nos.) (PSUs only)**[#]	89	51	48	-	-	-	3	**191**
LPG Bottling capacity **(TMTPA) (PSUs only)**[&]	9,291	3,963	4,137	-	-	-	173	**17,564**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	11.7	6.4	6.8	-	-	-	-	**24.9**

[$](RIL= 5 terminals and 13 mini depots, Others=4 MRPL & 2 NRL); [@](Others=ShellMRPL -1); [^](Others=MRPL-6); [#](Others=NRL-1, OIL-1, CPCL-1); [&](Others=NRL-30, OIL-23, CPCL-120); [##]Nayara Energy Limited (formerly Essar Oil Limited).

16. Natural gas at a glance

(MMSCM)

Details	2016-17	2017-18	October			April-October		
			2017-18	2018-19 (Target)	2018-19 (P)	2017-18	2018-19 (Target)	2018-19 (P)
(a) Gross production	31,897	32,648	2,808	3,010	2,798	19,221	20,630	19,052
- ONGC	22,088	23,429	2,018	2,224	2,110	13,693	15,008	14,128
- Oil India Limited (OIL)	2,937	2,881	243	271	235	1,725	1,862	1,601
- Private / Joint Ventures (JVs)	6,872	6,338	548	514	452	3,804	3,760	3,323
(b) Net availability (excluding flare gas and loss)	30,848	31,731	2,738		2,723	18,692		18,586
(c) LNG import	24,686	26,328	2,422		2,281	14,617		16,465
(d) Total consumption including internal consumption (b+c)	55,534	58,059	5,159		5,005	33,308		35,051
(e) Total consumption **(in BCM)**	55.5	58.1	5.2		5.0	33.3		35.1
(f) Import dependency based on consumption (%), {c/d*100}	44.5	45.3	46.9		45.6	43.9		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	October 2018 (P)	57.5	MMSCM
Production of CBM gas	April-October 2018 (P)	410.3	MMSCM

18. Major natural gas pipeline network as on 01.11.2018

Nature of pipeline		GAIL	Reliance	GSPL	ARN	IOCL	Total
Natural gas	Length (KM)	11,410	1,784	2,593	299	140	**16,226**
	Cap (MMSCMD)*	230	84	43	3	10	**368.5**

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

19. Gas pipelines under execution / construction as on 01.11.2018

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) Spur Lines, Phase-2	GAIL(India) Ltd.	302	16	36"/30"/24"/18"
Jagdishpur- Haldia-Bokaro-Dhamra (JHBDPL)	GAIL(India) Ltd.	2,539	16	30”/24"/18"/12”/8”/4”
Mallavaram-Bhopal-Bhilwara-Vijaipur	GSPL India Transco Ltd.	1,881	78.25	42”/36"/30"/24"/18"/12”
Mehsana - Bathinda	GSPL India Gasnet Ltd.	2,052	77.1	36”/24”/18”/12”
Bathinda -Jammu-Srinagar	GSPL India Gasnet Ltd.	725	42.4	24”/18”/16”/12”/8”/6”
Kakinada - Vizag-Srikakulam	AP Gas Distribution	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 Ltd.	1,385	84.7	28”/24”/16”/12” /10”
Jaigarh-Mangalore	H-Energy Pvt. Ltd.	635	17	24"
Total		**11,216**		

20. Existing LNG terminals

Location	Promoters	Capacity (MMTPA) as on 01.10.2018	Capacity utilisation in % Apri-Sept 2018 (P)
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	109.5%
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	93.9%
Dabhol	RGPPL (GAIL - NTPC JV)	1.692 MMTPA*	4.4%
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	9.9%
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 01.11.2018

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	27	19,563	17,258	94	2
Assam	Assam Gas Co. Ltd	Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat	0	0	31,932	1,070	411
Chandigarh	IndianOil- Adani Gas	Chandigarh	4	7,500	7,638	0	1
Dadra & Nagar Haveli	Gujarat Gas Ltd.	Dadra & Nagar Haveli	3	831	1,453	10	12
Daman and Diu	Indian Oil- Adani Gas	Daman and Diu	2	1,000	489	23	9
Delhi	Indraprastha Gas Ltd .	NCT of Delhi (Including Noida & Ghaziabad)	450	10,52,911	9,90,254	2,401	1,499
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	469	8,60,084	19,53,860	18,235	4,732

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.11.2018							
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	55	1,48,381	83,981	266	416
Karnataka	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	Bengaluru, Tumkur, Belgaum	9	686	9,231	94	50
Kerala	Indian Oil- Adani Gas	Ernakulam	4	500	902	3	0
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampur	32	35,237	39,334	111	165
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	282	8,67,722	13,32,895	3,942	241
Odisha	GAIL (India) Ltd.	Bhubaneswar	4	1,590	170	0	0
Punjab	IRM Energy Pvt. Ltd.	Fatehgarh Sahib	1	415	120	1	4

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.11.2018

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	8,039	864	4	14
Telangana	Bhagyanagar Gas Ltd.	Hyderabad	34	24,630	8,294	9	13
Tripura	Tripura Natural Gas Co. Ltd	Agartala	8	11,153	37,224	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, Varanasi	94	1,46,950	1,24,851	419	659
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd.	Udham Singh Nagar, Haridwar	1	50	248	0	1
West Bengal	Great Eastern Energy Corporation Ltd.	Kultora, Asansol, Raniganj, Durgapur	7	3,594	0	0	0
Total			**1,491**	**3,190,836**	**4,640,998**	**27,097**	**8,278**

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
October 2018 - March 2019	3.36	7.67

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

International FOB prices/ Exchange rates ($/bbl)

Particulars	2016-17	2017-18	Apr-Oct'18
Crude oil (Indian Basket)	47.56	56.43	74.70
Petrol	58.10	67.83	83.15
Diesel	56.59	68.19	87.91
Kerosene	56.81	67.65	87.42
LPG ($/MT)	393.17	485.92	566.29
FO ($/MT)	258.92	327.50	440.13
Naphtha ($/MT)	415.17	494.73	634.78
Exchange (Rs./$)	67.09	64.45	69.27

Customs, excise duty & GST rates (as on 11.10.2018)

Product	Basic customs duty #	Excise duty	GST rates
Petrol	2.50%	Rs 17.98/Ltr	**
Diesel	2.50%	Rs 13.83/Ltr	**
PDS SKO	Nil	Not Applicable	5.00%
Non-PDS SKO	5.00%	Not Applicable	18.00%
Domestic LPG	Nil***	Not Applicable	5.00%
Non Domestic LPG	5.00%	Not Applicable	18.00%
Furnace Oil (Non-Fert)	5.00%	Not Applicable	18.00%
Naphtha (Non-Fert)	5.00%	Not Applicable	18.00%
ATF	5.00%	11% *	**
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)	39.45	45.31
Excise Duty	17.98	13.83
Dealer Commission (Average)	3.64	2.55
VAT (incl VAT on dealer commission)	16.49	10.62
Retail selling price (RSP) -Rounded	**77.56**	**72.31**
Particulars	**PDS SKO***	**Sub. Dom LPG***
Price before taxes and dealer/distributor commission	24.55	846.41
Dealer/distributor commission	2.04	51.21
GST (incl GST on dealer/distributor commission)	1.33	44.88
Retail Selling Price	**27.92**	**942.50**
Less: Cash Compensation on LPG to consumers under DBTL		435.08
Effective cost to consumer after subsidy		**507.42**

*Petrol and diesel at Delhi as per IOCL are as on 12th November 2018. PDS SKO at Mumbai and Sub. Dom LPG at Delhi are as on 16th November 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	0.46	200	0.60	260
Domestic LPG	10.54	1410	9.31	1,250
Total	-	**1,610**	-	**1,510**

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

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

Under-recoveries/subsidy & burden sharing

PDS Kerosene

Product	2016-17	2017-18	H1, 2018-19
	Rs./Crore		
Under Recovery	7,595	4,672	3,309
Subsidy under DBTK #	11	113	0
Total	**7,605**	**4,785**	**3,309**

#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	H1, 2018-19
	Rs./Crore		
DBTL subsidy	12,905	20,880	13,921
PME &IEC^	-	25	92
Total	**12,905**	**20,905**	**14,013**

PMUY (Pradhan Mantri Ujjwala Yojana)

Particulars	2016-17	2017-18	H1, 2018-19
	Rs./Crore		
PMUY claims	2,999	2,496	3,062
PME & IEC^	-	63	34
Total	**2,999**	**2,559**	**3,096**

^ on payment basis

Sales & profit of petroleum sector (Rs. Crores)

Particulars	2017-18		H1, 2018-19	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	1,48,473	27,231	98,341	19,198
Downstream Companies (PSU)	10,20,395	35,622	6,09,145	16,401
Standalone Refineries (PSU)	1,20,430	5,181	68,925	1,407
Private-RIL	3,15,357	33,612	202,404	17,679

Borrowings of OMCs (Rs. Crores), As on

Company	Mar`17	Mar`18	Sep`18
IOCL	54,820	58,030	59,409
BPCL	23,159	23,351	23,955
HPCL	21,250	20,991	17,852

Petroleum sector contribution to Central/State Govt.

Particulars	2016-17	2017-18	H1, 2018-19
Central Government	3,34,534	3,43,862	1,56,865
% of total revenue receipts	24%	23%	
State Governments	189770	2,09,155	1,15,499
% of total revenue receipts	9%	9%	
Total (Rs. Crores)	**5,24,304**	**5,53,017**	**2,72,364**

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	Apr-Oct (P)
ONGC Ltd	29,502	28,010	72,383	32,077	15,107
ONGC Videsh Ltd (OVL)	6,783	18,360	6,240	5,886	2,832
Oil India Ltd (OIL)	3,550	10,514	8,395	4,300	1,766
GAIL (India) Ltd	1,880	2,180	3,613	4,722	2,791
Indian Oil Corp. Ltd. (IOCL)	14,368	21,918	20,345	22,862	15,246
Hindustan Petroleum Corp. Ltd (HPCL)	5,459	5,861	7,134	8,425	5,056
Bharat Petroleum Corp. Ltd (BPCL)	10,926	16,810	8,161	7,400	6,022
Mangalore Refinery & Petrochem Ltd (MRPL)	1,550	614	1,281	744	433
Chennai Petroleum Corp. Ltd (CPCL)	1,318	1,293	963	1,010	568
Numaligarh Refinery Ltd (NRL)	237	500	387	428	178
Balmer Lawrie Co. Ltd (BL)	38	73	78	125	98
Engineers India Ltd (EIL) [#]	-	-	-	1356	70
Total	**75,611**	**106,133**	**128,981**	**89,335**	**50,166**

(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	1,325 SCM	Power generation from 1 MMSCMD of gas	220 MW