Ready Reckoner

Snapshot of India's Oil & Gas data

May, 2018

Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

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Highlights for the month

- Indigenous crude oil and condensate production during May 2018 was lower by 2.9% than that of May 2017. While PSC fields registered growth of 0.6% PSU companies registered de-growth of 4.3% during the month over May 2017. The percentage share of PSU companies in crude oil and condensate production decreased to 70.5% during May 2018 against 71.9% during May 2017. However, share of PSC fields increased to 29.5% during % during May 2018 against 28.1% during May 2017.
- Total crude oil processed during May 2018 was 22.2 MMT, which was an increase of 6.8% over May 2017 mainly due to increase in crude oil processed by PSU/JV refineries. Indian refineries processed 76.2% high sulphur crude oil during May 2018 against 74.2% during May 2017.
- Production of petroleum products during May 2018 saw a growth of 4.9% over May 2017. LPG, ATF, HSD and petcoke production registered a growth of 13.5%, 14.9%, 8.6% and 11.8% respectively during May 2018 as compared to May 2017. Fractionators achieved 14.0% growth in production during May 2018 as compared to May 2017.
- Crude oil imports increased by 10.9% during May 2018 as compared to May 2017. On cumulative basis, crude oil imports increased by 3.1% during April-May 2018 as compared to April-May 2017.
- Product imports decreased by 3.3% during May 2018 as compared to May 2017. On cumulative basis, product imports increased by 6.2% during April-May 2018 as compared to April-May 2017. Increase in POL product imports during April-May 2018 was mainly due to increase in imports of naphtha, fuel oil and MS.
- Product exports decreased by 8.4 % during May 2018 as compared to May 2017. On cumulative basis, product exports decreased by 17.6% during April-May 2018 as compared to April-May 2017.
- Petroleum product consumption registered a growth of 3.4% during May 2018 and a cumulative growth of 3.9% during April-May 2018. Last year during May 2017 a growth of 6.9% and cumulative growth of 4.9% during period April-May 2017 was observed. Except for SKO (-19.8%) and FO/LSHS (-13.6%) all other products registered positive growth during May 2018. Consumption of MS & HSD during the month was the highest recorded during any month.

- Total LPG consumption continuously for the last fifty seven months in a row recorded a positive growth. Growth of 14.4% during May 2018 and a cumulative growth of 13.7% during April to May 2018 was observed. This year during the period April 2018 to May 2018, 8.6 lakh DBCs and 71.8 lakh new connections were released out of which 56.7 lakh were released under PMUY. Nearly 19 lakh new connections have been released more during the current year in this period compared to last year. Total 412.8 lakh connections were released under PMUY till 31.05.2018 since inception. Out of the five regions, Northern region had the highest share in consumption of 31.3% followed by Southern region at 28.3%, Western region at 21.2%, Eastern region at 16.5% and North Eastern region at 2.8% during the period May 2018. North Eastern region had the highest growth of 29.4% in total LPG consumption during the period May 2018.
- SKO consumption registered a de-growth of -19.8% during May 2018 as compared to de-growth of -33.4% during May 2017. This was mainly because of reduced Q1, 2018-19 allocation to the states and voluntary surrender of PDS SKO quota by Haryana, Punjab, Dadra & Nagar Haveli, Daman & Diu, Puducherry and Andhra Pradesh and voluntary surrender of some allocation quantity from Q1, 2018-19 by Gujarat.
- Gross production of natural gas for the month of May, 2018 was 2728.0 MMSCM which was lower by 1.5% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 5391.0 MMSCM for the current financial year till May, 2018 was higher by 1.7% compared with the corresponding period of the previous year (5302.3 MMSCM).
- LNG import for the month of May, 2018 was 2260.1 MMSCM which was 16.4 % higher than the corresponding month of the previous year. The cumulative import of 4540.2 MMSCM for the current year till May, 2018 was higher by 10.2% compared with the corresponding period of the previous year (4118.7 MMSCM).
- The price of Brent Crude averaged $76.93/bbl during May 2018 as against $71.80/bbl during April 2018. Brent crude price was $50.43/bbl during May 2017. The Indian basket crude price averaged $75.31/bbl during May 2018 as against $69.30/bbl during the previous month. The Indian basket crude price during May 2017 was $50.57/bbl.
- The import bill of crude oil is estimated to increase by 24% from $88 billion in 2017-18 to $109 billion in 2018-19 considering average Indian basket crude oil price of $65/bbl and $/Rs = 65 for 2018-19.

1. Selected indicators of the Indian economy							
Economic indicators		Unit/ Base	2013-14	2014-15	2015-16	2016-17	2017-18 (P)
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
3	Agricultural Production (Food grains)	MMT	265.0	252.0	251.6	275.1 FE	279.5 3rd AE
		Growth %	3.1	-4.9	-0.2	9.4	1.6
4	Gross Fiscal Deficit	%	-4.5	-4.1	-3.9	-3.5	-3.5 RE

Economic indicators		Unit/ Base	2016-17	2017-18 (P)	May (P)		April-May (P)	
					2017-18	2018-19	2017-18	2018-19
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.6	4.3	3.2#	4.9#	-	-
6	Imports	$ Billion	384.4	465.6	37.9	43.5	75.7	83.1
7	Exports	$ Billion	275.9	303.4	24.0	28.9	48.7	54.8
8	Trade Balance	$ Billion	-108.5	-162.2	-13.9	-14.6	-27.1	-28.3
9	Foreign Exchange Reserves @	$ Billion	370.0	424.4	378.8	412.8	-	-

#IIP is for the month of April; @2016-17-as on March 31, 2017, 2017-18-as on March 30, 2018, May 2017- as on May 26, 2017 and May 2018-as on May 25, 2018; AE-Advanced Estimates; RE-Revised Estimates; PE-Provisional Estimates; FE-Final 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 (P)	May (P)		April-May (P)	
					2017-18	2018-19	2017-18	2018-19
1	Crude oil production in India	MMT	36.0	35.7	3.1	3.0	6.0	5.9
2	Consumption of petroleum products	MMT	194.6	204.9	18.1	18.7	35.0	36.4
3	Production of petroleum products	MMT	243.5	254.4	21.2	22.3	40.9	42.5
4	Imports & exports:							
	Crude oil imports	MMT	213.9	220.4	17.9	19.9	36.0	37.1
		$ Billion	70.2	87.8	6.3	10.2	13.0	18.5
	Petroleum products (POL) imports	MMT	36.3	35.9	3.1	3.0	5.7	6.1
		$ Billion	10.6	13.4	1.0	1.2	1.9	2.4
	Gross petroleum imports (Crude + POL)	MMT	250.2	256.3	21.0	22.8	41.7	43.2
		$ Billion	80.8	101.2	7.3	11.5	14.9	20.9
	Petroleum products exports	MMT	65.5	66.8	4.9	4.5	10.1	8.3
		$ Billion	29.0	34.9	2.4	3.1	4.9	5.6
	LNG imports	$ Billion	6.1	7.8	0.5	0.7	1.1	1.5
5	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.0	21.7	19.3	26.3	19.6	25.2
6	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	11.5	10.0	10.8	10.1	10.1
7	Import dependency of crude (on consumption basis)	%	81.7	82.8	83.9	83.9	83.5	83.8

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2016-17	2017-18 (P)	May (P)			April -May (P)		
			2017-18	2017-18 (Target)*	2018-19	2017-18	2017-18 (Target)*	2018-19
ONGC	20.9	20.8	1.8	1.7	1.7	3.6	3.4	3.4
Oil India Limited (OIL)	3.3	3.4	0.3	0.3	0.3	0.6	0.6	0.6
Private / Joint Ventures (JVs)	10.4	9.9	0.9	0.9	0.9	1.7	1.7	1.7
Total Crude Oil	**34.5**	**34.0**	**3.0**	**2.9**	**2.9**	**5.8**	**5.6**	**5.6**
ONGC condensate	1.4	1.5	0.1	0.1	0.1	0.2	0.2	0.3
PSC condensate	0.1	0.2	0.02	0.01	0.02	0.03	0.03	0.04
Total condensate	**1.5**	**1.6**	**0.1**	**0.1**	**0.1**	**0.3**	**0.2**	**0.3**
Total (Crude + Condensate) (MMT)	**36.0**	**35.7**	**3.1**	**3.0**	**3.0**	**6.0**	**5.9**	**5.9**
Total (Crude + Condensate) (Million Bbl)	**263.9**	**261.6**	**22.7**	**22.1**	**22.0**	**44.3**	**43.1**	**43.4**

*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 (P)	May (P)		April-May (P)	
			2017-18	2018-19	2017-18	2018-19
Total domestic production (MMTOE)	67.9	68.3	5.9	5.7	11.3	11.3
Overseas production (MMTOE)	16.1	19.6	1.7	1.8	3.6	3.7
Overseas production as percentage of domestic production	**23.8%**	**28.7%**	**29.0%**	**32.2%**	**31.4%**	**32.5%**

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

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

Details		2016-17	2017-18 (P)	May (P)		April-May (P)	
				2017-18	2018-19	2017-18	2018-19
1	High Sulphur crude	177.4	188.4	15.5	16.9	30.2	31.6
2	Low Sulphur crude	67.9	63.6	5.4	5.3	10.6	10.5
Total crude processed		**245.4**	**251.9**	**20.8**	**22.2**	**40.9**	**42.1**
Percentage share of HS crude in total crude oil processing		**72.3%**	**74.8%**	**74.2%**	**76.2%**	**74.0%**	**75.1%**

6. Quantity and value of crude oil imports			
Year	**Quantity (MMT)**	**$ Million**	**Rs. Crore**
2017-18 (P)	220.43	87,776	5,65,951
2018-19 (Estimated)	227.00	108,793	7,08,136

Note: Imports are estimated considering average crude oil price $ 65/bbl and exchange rate 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. 10,880 crores

If exchange rate of Rs./$ changes by Rs. 1/$ - Crude oil import bill changes by Rs. 10,880 crores

7. Self-sufficiency in petroleum products (Million Metric Tonnes)							
Particulars		**2016-17**	**2017-18 (P)**	**May (P)**		**April-May (P)**	
				2017-18	**2018-19**	**2017-18**	**2018-19**
1	Indigenous crude oil processing	33.5	32.8	2.8	2.8	5.5	5.5
2	Products from indigenous crude (93.3% of crude oil processed)	31.3	30.6	2.6	2.6	5.1	5.1
3	Products from fractionators (Including LPG and Gas)	4.3	4.6	0.3	0.4	0.7	0.8
4	Total production from indigenous crude & condensate **(2 + 3)**	35.6	35.2	2.9	3.0	5.8	5.9
5	Total domestic consumption	194.6	204.9	18.1	18.7	35.0	36.4
% Self-sufficiency (4 / 5)		**18.3%**	**17.2%**	**16.1%**	**16.1%**	**16.5%**	**16.2%**

8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)										
Company	**Refinery**	**Installed capacity (1.6.2018) (MMTPA)**	**Crude oil processing (MMT)**							
			2016-17	**2017-18 (P)**	**May (P)**			**April-May (P)**		
					2017-18 (Actual)	**2018-19 (Target)***	**2018-19**	**2017-18 (Actual)**	**2018-19 (Target)***	**2018-19**
IOCL	Barauni (1964)	6.0	6.5	5.8	0.5	0.6	0.6	1.1	1.1	1.2
	Koyali (1965)	13.7	14.0	13.8	1.2	1.0	1.2	2.3	2.2	2.4
	Haldia (1975)	7.5	7.7	7.7	0.7	0.7	0.6	1.4	1.2	1.3
	Mathura (1982)	8.0	9.2	9.2	0.8	0.8	0.9	1.6	1.5	1.7
	Panipat (1998)	15.0	15.6	15.7	1.4	1.3	1.4	2.7	2.6	2.7
	Guwahati (1962)	1.0	0.86	1.02	0.09	0.08	0.09	0.17	0.16	0.18
	Digboi (1901)	0.65	0.53	0.67	0.05	0.06	0.06	0.11	0.10	0.11
	Bongaigaon(1979)	2.35	2.5	2.4	0.2	0.2	0.2	0.4	0.4	0.4
	Paradip (2016)	15.0	8.2	12.7	1.3	1.2	1.3	2.0	1.9	1.5
	IOCL TOTAL	**69.2**	**65.2**	**69.0**	**6.3**	**5.9**	**6.3**	**11.8**	**11.3**	**11.6**
CPCL	Manali (1969)	10.5	9.8	10.3	0.9	0.9	0.8	1.5	1.7	1.6
	CBR (1993)	1.0	0.53	0.50	0.04	0.04	0.03	0.08	0.08	0.07
	CPCL-TOTAL	**11.5**	**10.3**	**10.8**	**0.9**	**0.9**	**0.8**	**1.6**	**1.8**	**1.7**
BPCL	Mumbai (1955)	12.0	13.5	14.1	1.0	1.1	1.2	2.0	2.2	2.5
	Kochi (1966)	15.5	11.8	14.1	1.1	1.4	1.4	2.1	2.7	2.7
BORL	Bina (2011)	6.0	6.4	6.7	0.6	0.6	0.6	1.2	1.1	1.1
NRL	Numaligarh (1999)	3.0	2.7	2.8	0.2	0.2	0.2	0.5	0.5	0.4
	BPCL-TOTAL	**36.5**	**34.4**	**37.7**	**3.0**	**3.3**	**3.5**	**5.8**	**6.5**	**6.7**

Company	Refinery	Installed capacity (1.6.2018) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18 (P)	May (P)			April-May (P)		
					2017-18 (Actual)	2018-19 (Target)*	2018-19	2017-18 (Actual)	2018-19 (Target)*	2018-19
ONGC	Tatipaka (2001)	0.066	0.085	0.080	0.007	0.005	0.006	0.013	0.010	0.013
MRPL	Mangalore (1996)	15.0	16.0	16.1	1.4	1.3	1.2	2.6	2.5	2.5
	ONGC TOTAL	**15.1**	**16.1**	**16.2**	**1.4**	**1.3**	**1.2**	**2.6**	**2.5**	**2.5**
HPCL	Mumbai (1954)	7.5	8.5	8.6	0.7	0.7	0.7	1.4	1.4	1.4
	Visakh (1957)	8.3	9.3	9.6	0.8	0.8	0.8	1.6	1.6	1.6
HMEL	Bathinda (2012)	11.3	10.5	8.8	0.0	0.9	1.1	0.8	1.8	2.1
	HPCL- TOTAL	**27.1**	**28.3**	**27.1**	**1.6**	**2.5**	**2.6**	**3.8**	**4.9**	**5.1**
RIL	Jamnagar (DTA) (1999)	33.0	32.8	33.2	2.7	2.7	2.8	5.4	5.4	5.5
	Jamnagar (SEZ) (2008)	35.2	37.4	37.3	3.2	3.2	3.2	6.4	6.4	5.5
NEL#	Vadinar (2006)	20.0	20.9	20.7	1.8	1.7	1.8	3.5	3.3	3.5
All India		**247.6**	**245.4**	**251.9**	**20.8**	**21.5**	**22.2**	**40.9**	**42.0**	**42.1**

*Targets are as recived 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

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,191	1,193	688	1,017	5,301	937	-	-	**10327**
(as on 1.6.2018)	Cap (MMTPA)	58.5	8.4	10.7	9.0	48.6	6.0	-	-	**141.2**
Products	Length (KM)	-	654	-	-	7,950	1,948	3,371	2,688	**16611**
(as on 1.6.2018)	Cap (MMTPA)	-	1.7	-	-	46.2	16.2	38.1	9.3	**111.4**

***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**	**2014-15**	**2015-16**	**2016-17**	**2017-18**
IOCL	Barauni	-1.20	2.93	6.52	6.60
	Koyali	4.79	6.80	7.55	9.44
	Haldia	-1.51	3.96	6.80	6.86
	Mathura	-2.19	3.30	7.01	7.09
	Panipat	-1.97	4.15	7.95	7.74
	Guwahati **	8.68	15.88	22.14	21.88
	Digboi **	13.73	16.17	24.49	24.86
	Bongaigaon **	-0.26	11.09	20.15	20.62
	Paradip #	-	-0.65	4.22	7.02
	Weighted average	**0.27**	**5.06**	**7.77**	**8.49**
BPCL	Kochi	3.17	6.87	5.16	6.44
	Mumbai	3.97	6.37	5.36	7.26
	Weighted average	**3.62**	**6.59**	**5.26**	**6.85**
HPCL	Mumbai	4.88	8.09	6.95	8.35
	Visakhapatnam	1.12	5.46	5.51	6.55
	Weighted average	**2.84**	**6.68**	**6.20**	**7.40**
CPCL	Chennai	1.97	5.27	6.05	6.42
MRPL	Mangalore	-0.64	5.20	7.75	7.54
NRL	Numaligarh **	16.67	23.68	28.56	31.92
BORL	Bina	6.10	11.70	11.80	11.70
RIL	Jamnagar	8.60	10.80	11.00	11.60
NEL@	Vadinar	8.37	10.81	9.14	*

*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**	**2014-15**	**2015-16**	**2016-17**	**2017-18**
IOCL	Guwahati	0.96	1.26	1.12	3.70
	Digboi	5.42	4.16	7.73	8.27
	Bongaigaon	-6.51	0.08	6.03	6.22
NRL	Numaligarh	9.46	8.06	8.50	11.43

12. Production and consumption of petroleum products (Million Metric Tonnes)										
Products	**2017-18**		**May 2017 (P)**		**May 2018 (P)**		**April-May 2017 (P)**		**April-May 2018 (P)**	
	Prod^n	**Consump^n**	**Prod^n**	**Consump^n**	**Prod^n**	**Consump^n**	**Prod^n**	**Consump^n**	**Prod^n**	**Consump^n**
LPG	12.4	23.3	1.0	1.8	1.1	2.0	1.9	3.4	2.1	3.9
MS	37.8	26.2	3.2	2.4	3.3	2.5	6.3	4.5	6.3	4.7
NAPHTHA	19.9	12.5	1.8	1.0	1.6	1.0	3.4	2.0	3.1	2.1
ATF	14.7	7.6	1.1	0.6	1.3	0.7	2.3	1.2	2.5	1.4
SKO	4.3	3.8	0.4	0.4	0.3	0.3	0.8	0.7	0.7	0.6
HSD	107.9	81.1	8.9	7.5	9.7	7.5	17.4	14.5	18.0	14.7
LDO	0.55	0.52	0.06	0.03	0.04	0.04	0.08	0.07	0.08	0.10
LUBES	1.04	3.8	0.08	0.3	0.09	0.3	0.2	0.6	0.2	0.6
FO/LSHS	10.3	6.8	1.0	0.6	0.7	0.5	1.6	1.2	1.4	1.1
BITUMEN	5.3	6.0	0.6	0.7	0.6	0.7	1.1	1.3	1.2	1.4
PET COKE	13.9	26.2	1.1	2.2	1.3	2.4	2.2	4.4	2.3	4.6
OTHERS	26.3	7.1	1.9	0.6	2.3	0.6	3.8	1.1	4.7	1.2
ALL INDIA	**254.4**	**204.9**	**21.2**	**18.1**	**22.3**	**18.7**	**40.9**	**35.0**	**42.5**	**36.4**
Growth (%)	**4.5%**	**5.3%**	**5.4%**	**6.9%**	**4.9%**	**3.4%**	**2.8%**	**4.9%**	**3.9%**	**3.9%**

Note: Prod^n - Production; Consump^n - Consumption

13. LPG consumption (Thousand Metric Tonne)								
LPG category	**2016-17**	**2017-18 (P)**	**May 2018**			**April-May (P)**		
			2017-18	**2018-19**	**Gr (%)**	**2017-18**	**2018-19**	**Gr (%)**
1. PSU Sales :								
LPG-Packed Domestic	18871.4	20,351.8	1561.1	1783.2	14.2	3,004.7	3,402.1	13.2
LPG-Packed Non-Domestic	1775.9	2,085.8	153.1	187.9	22.7	294.7	366.1	24.2
LPG-Bulk	364.3	354.4	25.3	30.9	22.0	46.6	60.6	30.0
Auto LPG	167.3	184.3	15.7	15.7	0.02	30.1	30.1	0.2
Sub-Total (PSU Sales)	**21,178.9**	**22,976.4**	**1,755.2**	**2,017.7**	**58.9**	**3,376.2**	**3,858.9**	**14.3**
2. Direct Private Imports	429.3	367.0	34.9	30.4	-13.0	71.1	60.7	-14.6
Total (1+2)	**21,608.2**	**23,343.3**	**1,790.2**	**2,048.1**	**45.9**	**3,447.3**	**3,919.7**	**13.7**

14. Kerosene allocation vs upliftment (Kilo Litres)										
Product	**2013-14**		**2014-15**		**2015-16**		**2016-17**		**2017-18 (P)**	
	Allocation	**Upliftment**	**Allocation**	**Upliftment**	**Allocation**	**Upliftment**	**Allocation**	**Upliftment**	**Allocation**	**Upliftment**
PDS Kerosene	90,55,068	89,96,251	89,75,538	88,78,352	86,85,384	85,36,752	69,33,030	66,78,447	50,21,828	46,69,164

15. Industry marketing infrastructure (as on 01.05.2018) (Provisional)								
Particulars	**IOCL**	**BPCL**	**HPCL**	**RIL**	**NEL##**	**SHELL**	**Others**	**Total**
POL Terminal/ Depots **(Nos.)**$	125	78	82	18	2	-	6	**311**
Aviation Fuel Stations **(Nos.)**@	107	52	42	28	-	-	1	**230**
Retail Outlets (total) **(Nos.)**^	27,143	14,477	15,098	1,400	4,575	109	6	**62,808**
out of which, Rural ROs	7,565	2,632	3,329	127	1,618	14	-	**15,285**
SKO/LDO agencies **(Nos.)**	3,892	1,001	1,638	-	-	-	-	**6,531**
LPG Distributors (total) **(Nos.) (PSUs only)**	10,276	5,164	4,918	-	-	-	-	**20,358**
LPG Bottling plants **(Nos.) (PSUs only)**#	91	50	48	-	-	-	1	**190**
LPG Bottling capacity **(TMTPA) (PSUs only)**&	9,385	3,933	4,047	-	-	-	30	**17,395**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	10.9	5.9	6.26	-	-	-	-	**23.1**

$(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 (P)	May			April-May		
			2017-18 (P)	2018-19 (Target)	2018-19 (P)	2017-18 (P)	2018-19 (Target)	2018-19 (P)
(a) Gross production	31,897	32,648	2,768	2,942	2,728	5,302	5,743	5,392
- ONGC	22,088	23,429	1,963	2,115	1,982	3,754	4,140	3,954
- Oil India Limited (OIL)	2,937	2,881	245	266	227	486	521	449
- Private / Joint Ventures (JVs)	6,872	6,338	560	561	519	1,062	1,082	989
(b) Net availability (excluding flare gas and loss)	30,848	31,731	2,697		2,662	5,153		5,261
(c) LNG import	24,686	26,328	1,936		2,260	4,119		4,540
(d) Total consumption including internal consumption (b+c)	55,534	58,059	4,633		4,922	9,272		9,801
(e) Total consumption **(in BCM)**	55.5	58.1	4.6		4.9	9.3		9.8
(f) Import dependency based on consumption (%), {c/d*100}	44.5	45.3	41.8		45.9	44.4		46.3

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	May 2018 (P)	62.6	MMSCM
Production of CBM gas	April-May 2018 (P)	125.6	MMSCM

18. Gas pipelines under execution / construction as on 01.06.2018

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. Ltd	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**		

19. Existing LNG terminals

Location	Promoters	Capacity (MMTPA) as on 01.06.2018	Capacity utilisation in % April-May 2018 (P)
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	110.5
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	85.6
Dabhol	RGPPL (GAIL - NTPC JV)	1.692 MMTPA*	3.4
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	9.7
Total Capacity		**26.7 MMTPA**	

* To increase to 5 MMTPA with breakwater

20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.06.2018

State	Entity operating	Geographical area	CNG stations	PNG connections			No. of CNG vehicles
				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	51	75,874	241	364	1,26,627
Andhra Pradesh	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	Kakinada, Vijayawada, East/ West Godavari, Krishna	24	15,929	55	2	18,453
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	458	18,67,768	17,956	4,598	9,34,103

20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.06.2018							
State	**Entity operating**	**Geographical area**	**CNG stations**	**PNG connections**			**No. of CNG vehicles**
				Domestic	**Commercial**	**Industrial**	
Telangana	Bhagyanagar Gas Ltd.	Hyderabad	33	7,887	9	5	24,518
Assam	Assam Gas Co. Ltd	Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat	0	31,764	1,045	409	0
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampur	30	31,041	98	133	30,729
Rajasthan	Rajasthan State Gas Limited	Kota, Neemrana & Kukas	5	462	4	16	7,143
Delhi	Indraprastha Gas Ltd .	NCT of Delhi (Including Noida & Ghaziabad)	438	9,08,632	2,222	1,269	10,32,315
Karnataka	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	Bengaluru, Tumkur	7	5,783	60	31	379
Chandigarh	IndianOil- Adani Gas	Chandigarh	4	22,757	0	0	4,000
Kerala	Indian Oil- Adani Gas	Ernakulam	4	5,219	3	0	100
Daman and Diu	Indian Oil- Adani Gas	Daman and Diu	2	2,556	17	6	550
Dadra & Nagar Haveli	Gujarat Gas Ltd.	Dadra & Nagar Haveli	3	621	9	9	209
Punjab	IRM Energy Pvt. Ltd.	Fatehgarh Sahib	0	0	0	1	0
Odisha	GAIL (India) Ltd.	Bhubaneswar	2	102	0	0	594
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd.	Udham Singh Nagar	0	992	0	0	0

20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.06.2018

State	Entity operating	Geographical area	CNG stations	PNG connections			No. of CNG vehicles
				Domestic	Commercial	Industrial	
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	272	12,41,170	3,817	228	8,15,807
Tripura	Tripura Natural Gas Co. Ltd	Agartala	6	35,286	49	415	10,760
West Bengal	Great Eastern Energy Corporation Ltd.	Kultora, Asansol, Raniganj, Durgapur	7	0	0	0	3,523
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	86	1,12,286	383	643	1,40,328
Total			**1,432**	**43,66,129**	**25,968**	**8,129**	**31,50,138**

21. Major natural gas pipeline network as on 01.06.2018

Nature of pipeline		GAIL	Reliance	GSPL	ARN	IOCL	ONGC	Total
Natural gas	Length (KM)	11,410	1,784	2,618	817	140	16,770	**33,540**
	Cap (MMSCMD)*	229.5	83.5	43.0	3.2	9.5	368.8	**737.5**

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

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	May-18
Crude oil (Indian Basket)	47.56	56.43	75.31
Petrol	58.10	67.83	85.31
Diesel	56.59	68.19	88.62
Kerosene	56.81	67.65	88.25
LPG ($/MT)	393.31	486.04	503.00
FO ($/MT)	258.92	327.50	432.25
Naphtha ($/MT)	415.17	494.73	648.76
Exchange (Rs./$)	67.09	64.45	67.54

Customs & excise duty 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.*** 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)	36.96	39.96
Excise Duty	19.48	15.33
Dealer Commission (Average)	3.62	2.52
VAT (incl VAT on dealer commission)	16.21	9.97
Retail selling price (RSP) -Rounded	**76.27**	**67.78**
Particulars	**PDS SKO***	**Sub. Dom LPG***
Price before taxes and dealer/distributor commission	22.05	616.05
Dealer/distributor commission	2.03	49.18
GST (incl GST on dealer/distributor commission)	1.20	33.27
Retail Selling Price	**25.29**	**698.50**
Less: Cash Compensation on LPG to consumers under DBTL		204.95
Effective cost to consumer after subsidy		**493.55**

*Petrol and diesel at Delhi as per IOCL are as on 19th June, 2018. SKO at Mumbai is as on 16th June, 2018 and Sub. Dom LPG at Delhi is as on 1st June, 2018. RSP of Subsidized Dom LPG rounded.

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	0.42	180	0.57	250
Domestic LPG	9.68	1300	7.13	950
Total	-	**1,480**	-	**1,200**

Note: The above calculations are based on RTP for June, 2018

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

Under-recoveries/subsidy & burden sharing

PDS Kerosene

Product	2016-17	2017-18
	Rs./Crore	
Under Recovery	7595	4672
Subsidy under DBTK #	11	113
Total	**7605**	**4785**

#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
	Rs./Crore	
DBTL subsidy	12,905	20,880
PME &IEC^	-	25
Total	**12,905**	**20,905**

PMUY (Pradhan Mantri Ujjwala Yojana)

Particulars	2016-17	2017-18
	Rs./Crore	
PMUY claims	2999	2496
PME & IEC^	-	63
Total	**2999**	**2559**

^ on payment basis

Sales & profit of petroleum sector (Rs. Crores)

2017-18	Turnover	PAT
Upstream/midstream Companies (PSU)	148,473	27,231
Downstream Companies (PSU)	1,017,028	35,622
Standalone Refineries (PSU)	120,430	5,181
Private-RIL	380,615	33,612

Borrowings of OMCs (Rs. Crores)

Company	As on Mar`16*	As on Mar`17	As on Mar`18
IOCL	52,880	54,820	58,030
BPCL	15,857	23,159	23,351
HPCL	21,167	21,250	20,991

*Regrouped as per Ind AS

Petroleum sector contribution to Central/State Govt.

Particulars	2015-16	2016-17	2017-18
Central Government	2,53,615	3,34,534	3,43,858
% of total revenue receipts	21%	24%	-
State Governments	1,60,209	1,89,770	2,09,155
% of total revenue receipts	8%	8%	-
Total (Rs. Crores)	**4,13,824**	**5,24,304**	**5,53,013**

Subsidy as a percentage of GDP (at current prices)

Particulars	2014-15	2015-16	2016-17
Petroleum subsidy	0.62	0.25	0.18

Note: GDP figure for 2014-15 and 2015-16 are Revised Estimates and 2016-17 are Provisional Estimates

24. Capital expenditure of PSU oil companies						
						(Rs in crores)
Company	**2014-15**	**2015-16 (P)**	**2016-17 (P)**	**2017-18 (P)**	**2018-19**	
					Target	**April-May (P)**
ONGC Ltd	29,997	29,502	28,010	72,383	32,077	3,351
ONGC Videsh Ltd (OVL)	7,172	6,783	18,360	6,240	5,886	725
Oil India Ltd (OIL)	3,774	3,550	10,514	8,395	4,300	440
GAIL (India) Ltd	1,632	1,880	2,180	3,613	4,722	470
Indian Oil Corp. Ltd. (IOCL)	14,314	14,368	21,918	20,345	22,862	4,149
Hindustan Petroleum Corp. Ltd (HPCL)	2,670	5,459	5,861	7,134	8,425	584
Bharat Petroleum Corp. Ltd (BPCL)	6,875	10,926	16,810	8,161	7,400	1,120
Mangalore Refinery & Petrochem Ltd (MRPL)	2,747	1,550	614	1,281	744	76
Chennai Petroleum Corp. Ltd (CPCL)	466	1,318	1,293	963	1,010	126
Numaligarh Refinery Ltd (NRL)	103	237	500	387	428	42
Balmer Lawrie Co. Ltd (BL)	80	38	73	78	125	4
Engineers India Ltd (EIL) [#]	-	-	-	-	1356	1
Total	**69,830**	**75,611**	**106,133**	**128,981**	**89,335**	**11,088**

(P) Provisional & includes expenditure on investment in JV/subsidiaries.

[#] Included since 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