Ready Reckoner

Snapshot of India's Oil & Gas data

December, 2017

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 December 2017 was lower by 2.1% than that of December 2016. PSU companies registered de-growth of 1.6% during the month over December 2016. PSC fields registered de-growth of 3.4% during the month over December 2016. On cumulative basis, there was a marginal decrease of 0.4% over April- December 2016 in the indigenous crude oil and condensate production.
- Total crude oil processed during December 2017 was 22.1 MMT, which was an increase of 3.2% over December 2016 mainly due to increase in crude oil processed by IOCL Paradip and BPCL Kochi refineries. On cumulative basis crude oil processed was higher by 2.2% over the period April- December 2016.
- Production of petroleum products during December 2017 saw a growth of 6.4% over December 2016. On cumulative basis a growth of 3.8% was recorded over the period April- December 2016.
- Crude oil imports increased by 9.1% during December 2017 as compared to December 2016. On cumulative basis crude oil imports increased by 1.6% over the corresponding period of the previous year. Product imports increased by 7.3% during December 2017 as compared to December 2016 mainly due to increase in LPG imports for domestic consumption. On cumulative basis, product imports decreased by 2.9% over the corresponding period of the previous year.
- Export of POL products increased by 10.9% during December 2017 as compared to December 2016. On cumulative basis, a increase of 2.3% was recorded in product exports over the period April- December 2016.
- Petroleum product consumption registered a growth of 7.5% during December 2017 as compared to 2.1% growth during December 2016. Except for naphtha, SKO & FO/LSHS all other products registered positive growth during December 2017. During the period April-December 2017-18, petroleum product consumption registered a growth of 4.0% as compared to 8.7% growth during the same period last year. Lower growth during the period April to December 2017 was mainly due to heavy rains in many states and high de-growth in consumption of SKO (-30.9%), naphtha (-8.8%), FO/LSHS (-9.1%) & bitumen (-3.1%).

•	Total LPG consumption continuously for the last fifty two months in a row recorded a positive growth of 6.0% during December 2017 and a cumulative growth of 8.4% for the period April to December 2017. Out of the five regions, Northern region had the highest share in consumption of 31.1% followed by Southern region at 28.7%, Western region at 22.2%, Eastern region at 15.7% and North Eastern region at 2.3% during the period April to December 2017. Eastern region had the highest growth of 16.6% in total LPG consumption during the period April to December 2017.
•	SKO consumption registered a drop of 18.4% during December 2017 and cumulative drop of 30.9% during the period April-December 2017-18. This was mainly because of reduced allocation to states during Q1, Q2 & Q3 of 2017-18 and voluntary surrender of PDS SKO quota by Haryana, Punjab, Dadra & Nagar Haveli, Daman & Diu, Puducherry and Andhra Pradesh.
•	Gross production of natural gas for the month of December 2017 was 2751.4 MMSCM which was higher by 0.5% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 24687.6 MMSCM for the current year till December 2017 was higher by 3.4% compared with the corresponding period of the previous year.
•	LNG import for the month of December 2017 was 2031.0 MMSCM which was 6.8% higher than the corresponding month of the previous year. The cumulative import of 19389.0 MMSCM for the current year till December 2017 was higher by 3.4% compared with the corresponding period of the previous year.
•	The price of Brent Crude averaged $ 64.19/bbl during December 2017 as against $ 62.62/bbl during November 2017. The Indian basket crude averaged $ 62.29/bbl during December 2017 as against $ 61.32/bbl during the previous month.
•	The import bill of crude oil is estimated to increase 25% from $ 70 billion in 2016-17 to $ 88 billion in 2017-18 considering Indian basket crude oil price of $ 65/bbl and $/Rs = 65 for the balance part of the year.

1. Selected indicators of the Indian economy

	Economic indicators	Unit/ Base	2013-14	2014-15	2015-16	2016-17 (P)	2017-18 (P)	
1	Population (as on 1st May, 2011)	Billion	1.2	-	-	-	-	
2	GDP at Factor Cost (Constant prices)*	Growth %	6.4	7.5	8.0	7.1 (PE)	5.7 Q1 (E)	6.3 Q2 (E)
3	Agricultural Production (Food grains)	MMT	265.0	252.0	251.6	275.7 4th AE	274.6 Target	134.7 1st AE
		Growth %	3.1	-4.9	-0.2	9.6	-0.4	-0.3
4	Gross Fiscal Deficit	%	-4.5	-4.1	-3.9	-3.5 (RE)	-3.2 (BE)	

	Economic indicators	Unit/ Base	2015-16	2016-17 (P)	December (P)		April-December (P)	
					2016	2017	2016-17	2017-18
5	Index of Industrial Production#	Growth %	3.3	4.6	5.1	8.4	5.5	3.2
6	Imports	$ Billion	381.0	384.4	34.6	41.9	277.9	338.4
7	Exports	$ Billion	262.3	275.9	24.1	27.0	199.5	223.5
8	Trade Balance	$ Billion	-118.7	-108.5	-10.5	-14.9	-78.4	-114.9
9	Foreign Exchange Reserves @	$ Billion	355.6	370.0	360.3	409.4	-	-

*Revised on account of using new series of IIP and WPI with base 2011-12. #IIP is for the month of November 2017 & cumulative for Apr-Nov'17, Base year of IIP changed to 2011-12; @2015-16-as on Mar 25, 2016; 2016-17-as on Mar 31, 2017, December 2016- as on December 30, 2016 and December 2017-as on December 29, 2017; E-Estimates; AE-Advanced Estimates; BE-Budget Estimates; RE-Revised Estimates

2. Crude oil, LNG and petroleum products at a glance									
Details		**Unit/ Base**	**2015-16**	**2016-17**	**December**		**April-December**		
					2016	**2017 (P)**	**2016-17**	**2017-18 (P)**
1	Crude oil production in India	MMT	36.9	36.0	3.1	3.0	27.0	26.9
2	Consumption of petroleum products	MMT	184.7	194.6	16.2	17.4	146.4	152.3
3	Production of petroleum products	MMT	231.9	243.5	21.2	22.5	182.0	188.9
4	Imports & exports:							
Crude oil imports		MMT	202.9	213.9	18.0	19.6	161.8	164.4
		$ Billion	64.0	70.2	6.3	8.7	50.6	61.8
Petroleum products (POL) imports		MMT	29.5	36.3	2.8	3.0	27.8	27.0
		$ Billion	10.0	10.6	1.0	1.2	7.5	9.7
Gross petroleum imports (Crude + POL)		MMT	232.3	250.2	20.8	22.7	189.6	191.3
		$ Billion	73.9	80.8	7.3	9.9	58.1	71.4
Petroleum products exports		MMT	60.5	65.5	5.3	5.9	49.2	50.3
		$ Billion	27.1	29.0	2.6	3.3	21.1	25.1
LNG imports		$ Billion	6.7	6.1	0.5	0.7	4.3	5.3
5	Petroleum imports as percentage (%) of India's gross imports (in value)	%	19.4	21.0	21.0	23.6	20.9	21.1
6	Petroleum exports as percentage (%) of India's gross exports (in value)	%	10.3	10.5	10.6	12.4	10.6	11.2
7	Import dependency of crude (on consumption basis)	%	80.6%	81.7%	80.9%	82.8%	81.9%	82.7%

3. Indigenous crude oil production (Million Metric Tonne)

Details	2015-16	2016-17	December			April-December		
			2016 (Actual)	2017 (P) (Target)*	2017 (P)	2016-17 (Actual)	2017-18 (P) (Target)*	2017-18 (P)
ONGC	21.1	20.9	1.8	2.0	1.7	15.6	17.3	15.8
Oil India Limited (OIL)	3.2	3.3	0.3	0.3	0.3	2.4	2.8	2.5
Private / Joint Ventures (JVs)	11.2	10.4	0.9	0.9	0.8	7.9	8.0	7.4
Total Crude Oil	**35.5**	**34.5**	**2.9**	**3.2**	**2.9**	**25.9**	**28.2**	**25.7**
Condensate	1.4	1.5	0.1		0.1	1.1		1.2
Total (Crude + Condensate) (MMT)	**36.9**	**36.0**	**3.1**	**3.2**	**3.0**	**27.0**	**28.2**	**26.9**
Total (Crude + Condensate) (Million Bbl)	**270.8**	**263.9**	**22.4**	**23.5**	**21.9**	**198.2**	**206.4**	**197.4**

*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	2015-16	2016-17	December		April-December	
			2016	2017 (P)	2016-17	2017-18 (P)
Total domestic production (MMTOE)	69.2	67.9	5.8	5.7	50.9	51.6
Overseas production (MMTOE)	10.1	16.2	1.8	1.6	11.0	14.4
Overseas production as percentage (%) of domestic production	**14.6%**	**23.9%**	**30.4%**	**28.7%**	**21.7%**	**27.8%**

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

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

Details		2015-16	2016-17	December		April-December	
				2016	2017 (P)	2016-17	2017-18 (P)
1	High Sulphur crude	166.1	177.4	15.8	16.5	133.4	139.9
2	Low Sulphur crude	66.7	67.9	5.6	5.6	50.4	48.1
Total crude processed		**232.9**	**245.4**	**21.4**	**22.1**	**183.9**	**188.0**
Share of HS crude in total crude oil processing		**71.3%**	**72.3%**	**73.8%**	**74.6%**	**72.6%**	**74.4%**

6. Quantity and value of crude oil imports			
Year	**Quantity (MMT)**	**$ Million**	**Rs. Crore**
2016-17	213.93	70,196	4,70,159
2017-18 (Estimated)	219.15	88,032	5,69,015

Note: April-December 2017 imports are based on actuals and for the balance period, imports are estimated at crude oil price $ 65/bbl and exchange rate Rs. 65/$.

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

If crude prices changes by one $/bbl - Net Import bill changes by Rs. 2,626 crores ($0.41 bn)

If exchange rate of Rs./$ changes by Rs. 1/$ - Net Import bill changes by Rs. 2,626 crores ($0.40 bn)

7. Self-sufficiency in petroleum products (Million Metric Tonnes)								
Particulars		**2015-16**	**2016-17**	**December**		**April-December**		
				2016	**2017 (P)**	**2016-17**	**2017-18 (P)**
1	Indigenous crude oil processing :	34.1	33.5	2.9	2.8	25.0	24.6
2	Products from indigenous crude (93.3% of crude oil processed)	31.8	31.3	2.7	2.6	23.3	23.0
3	Products from fractionators (Including LPG and Gas)	4.0	4.3	0.4	0.4	3.2	3.4
4	Total production from indigenous crude & condensate **(2 + 3)**	35.8	35.6	3.1	3.0	26.5	26.4
5	Total domestic consumption	184.7	194.6	16.2	17.4	146.4	152.3
% Self-sufficiency (4 / 5)		**19.4%**	**18.3%**	**19.1%**	**17.2%**	**18.1%**	**17.3%**

8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)										
Company	Refinery	Installed capacity (1.01.2018) (MMTPA)	Crude oil processing (MMT)							
			2015-16	2016-17	December			April-December		
					2016 (Actual)	2017 (P) (Target)	2017 (P)	2016-17 (Actual)	2017-18 (P) (Target)	2017-18 (P)
IOCL	Barauni (1964)	6.0	6.5	6.5	0.6	0.6	0.6	4.9	4.1	4.2
	Koyali (1965)	13.7	13.8	14.0	1.1	0.9	1.3	10.7	9.2	10.1
	Haldia (1975)	7.5	7.8	7.7	0.5	0.7	0.2	5.8	5.5	5.6
	Mathura (1982)	8.0	8.9	9.2	0.8	0.8	0.9	6.9	6.4	6.8
	Panipat (1998)	15.0	15.3	15.6	1.3	1.3	1.4	11.7	11.3	11.6
	Guwahati (1962)	1.0	0.9	0.9	0.07	0.07	0.09	0.7	0.6	0.8
	Digboi (1901)	0.65	0.6	0.5	0.05	0.04	0.05	0.4	0.4	0.5
	Bongaigaon(1979)	2.35	2.4	2.5	0.2	0.2	0.3	1.9	1.7	1.8
	Paradip (2016)	15.0	1.8	8.2	1.0	1.3	1.3	5.2	9.3	10.5
	IOCL TOTAL	**69.2**	**58.0**	**65.2**	**5.7**	**5.9**	**6.0**	**48.1**	**48.5**	**51.8**
CPCL	Manali (1969)	10.5	9.1	9.8	0.7	0.9	0.9	7.8	7.2	7.6
	CBR (1993)	1.0	0.5	0.5	0.04	0.04	0.05	0.4	0.4	0.4
	CPCL-TOTAL	**11.5**	**9.6**	**10.3**	**0.7**	**0.9**	**0.9**	**8.2**	**7.6**	**8.0**
BPCL	Mumbai (1955)	12.0	13.4	13.5	1.3	1.2	1.3	10.8	9.7	10.3
	Kochi (1966)	15.5	10.7	11.8	1.0	1.2	1.2	8.5	10.0	10.2
BORL	Bina (2011)	6.0	6.4	6.4	0.6	0.5	0.6	4.7	4.4	5.0
NRL	Numaligarh (1999)	3.0	2.5	2.7	0.3	0.2	0.2	2.0	2.0	2.1
	BPCL-TOTAL	**36.5**	**33.0**	**34.4**	**3.2**	**3.1**	**3.4**	**26.0**	**26.2**	**27.6**

Company	Refinery	Installed capacity (1.1.2018) (MMTPA)	Crude oil processing (MMT)							
			2015-16	2016-17	December			April-December		
					2016 (Actual)	2017 (P) (Target)	2017 (P)	2016-17 (Actual)	2017-18 (P) (Target)	2017-18 (P)
ONGC	Tatipaka (2001)	0.1	0.07	0.09	0.007	0.005	0.007	0.06	0.05	0.06
MRPL	Mangalore (1996)	15.0	15.5	16.0	1.5	1.5	1.5	11.9	11.8	12.0
	ONGC TOTAL	**15.1**	**15.6**	**16.1**	**1.5**	**1.5**	**1.5**	**12.0**	**11.8**	**12.0**
HPCL	Mumbai (1954)	7.5	8.0	8.5	0.8	0.7	0.8	6.3	6.4	6.5
	Visakh (1957)	8.3	9.2	9.3	0.9	0.8	0.8	6.9	7.1	7.2
HMEL	Bathinda (2012)	11.3	10.7	10.5	0.9	0.9	1.0	8.0	6.5	5.9
	HPCL- TOTAL	**27.1**	**27.9**	**28.3**	**2.6**	**2.5**	**2.6**	**21.2**	**20.0**	**19.6**
RIL*	Jamnagar (DTA) (1999)	33.0	32.4	32.8	2.8	2.8	2.7	24.8	24.8	24.7
	Jamnagar (SEZ) (2008)	35.2	37.1	37.4	3.2	3.2	3.3	27.9	27.9	28.7
EOL	Vadinar (2006)	20.0	19.1	20.9	1.8	1.7	1.8	15.8	15.3	15.5
All India		**247.6**	**232.9**	**245.4**	**21.4**	**21.6**	**22.1**	**183.9**	**182.0**	**188.0**

* RIL target for 2017-18 is previous year crude processing. **Note:** Some sub-totals/ totals may not add up due to rounding off at individual levels.

9. Major crude oil and product pipeline network

		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Other	Total
Crude Oil (as on 1.1.2018)	Length (KM)	1,191	1,193	660	1,017	5,301	937	-	-	**10299**
	Cap (MMTPA)	58.5	8.4	8.7	9.0	48.6	6.0	-	-	**139.2**
Products (as on 1.1.2018)	Length (KM)	-	654	-	-	7,950	1,936	3,354	2,688	**16582**
	Cap (MMTPA)	-	1.7	-	-	46.2	14.9	36.1	9.3	**108.2**

Other includes GAIL and Petronet India.

10. Gross Refining Margins (GRM) of refineries ($/bbl)					
Company	**Refinery**	**2014-15**	**2015-16**	**2016-17**	**Apr-Sep'2017**
IOCL	Barauni	-1.20	2.93	6.52	2.50
	Koyali	4.79	6.80	7.55	7.74
	Haldia	-1.51	3.96	6.80	3.97
	Mathura	-2.19	3.30	7.01	4.34
	Panipat	-1.97	4.15	7.95	4.86
	Guwahati **	8.68	15.88	22.14	20.97
	Digboi **	13.73	16.17	24.49	23.39
	Bongaigaon **	-0.26	11.09	20.15	16.50
	Paradip #	-	-0.65	4.22	5.80
	Weighted average	**0.27**	**5.06**	**7.77**	**6.08**
BPCL	Kochi	3.17	6.87	5.16	5.69
	Mumbai	3.97	6.37	5.36	7.25
	Weighted average	**3.62**	**6.59**	**5.26**	**6.48**
HPCL	Mumbai	4.88	8.09	6.95	7.89
	Visakhapatnam	1.12	5.46	5.51	5.75
	Weighted average	**2.84**	**6.68**	**6.20**	**6.75**
CPCL	Chennai	1.97	5.27	6.05	5.67
MRPL	Mangalore	-0.64	5.20	7.75	6.30
NRL	Numaligarh **	16.67	23.68	28.56	29.13
BORL	Bina	6.10	11.70	11.80	10.60
RIL	Jamnagar	8.60	10.80	11.00	11.90
Essar	Vadinar	8.37	10.81	9.14	*

*Being unlisted company, quarterly results are not declared; ** GRM of North Eastern refineries are including excise duty benefit, for GRM excluding excise duty benefit refer table 11; # Commissioned in February 2016.

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

Company	Refinery	2014-15	2015-16	2016-17	Apr-Sep'2017
IOCL	Guwahati	0.96	1.26	1.12	2.82
	Digboi	5.42	4.16	7.73	5.61
	Bongaigaon	-6.51	0.08	6.03	2.34
NRL	Numaligarh	9.46	8.06	8.50	8.54

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

Products	2016-17		December 2016		December 2017 (P)		April-December 2016		April-December 2017 (P)	
	Prod^n	Consump^n	Prod^n	Consump^n	Prod^n	Consump^n	Prod^n	Consump^n	Prod^n	Consump^n
LPG	11.3	21.6	1.1	1.9	1.1	2.1	8.3	15.9	9.1	17.3
MS	36.6	23.8	3.0	2.0	3.3	2.2	27.1	18.0	28.2	19.5
NAPHTHA	19.7	13.2	1.7	1.0	1.7	1.0	14.7	10.1	15.0	9.2
ATF	13.8	7.0	1.2	0.6	1.3	0.7	10.3	5.2	10.7	5.6
SKO	6.0	5.4	0.4	0.4	0.3	0.3	4.6	4.2	3.3	2.9
HSD	102.1	76.0	9.1	6.6	9.7	7.1	76.5	57.3	80.4	60.5
LDO	0.6	0.4	0.07	0.04	0.06	0.1	0.4	0.3	0.4	0.4
LUBES	1.0	3.5	0.08	0.3	0.09	0.3	0.8	2.6	0.7	2.7
FO/LSHS	12.0	7.2	1.3	0.6	0.7	0.5	9.5	5.5	8.0	5.0
BITUMEN	5.2	5.9	0.4	0.6	0.5	0.6	3.7	4.1	3.6	4.0
PET COKE	12.9	24.0	1.2	1.6	1.2	1.9	9.7	18.2	10.4	19.6
OTHERS	22.3	6.6	1.6	0.5	2.4	0.6	16.5	4.8	19.3	5.5
ALL INDIA	**243.5**	**194.6**	**21.2**	**16.2**	**22.5**	**17.4**	**182.0**	**146.4**	**188.9**	**152.3**
Growth (%)	**5.0%**	**5.4%**	**5.6%**	**2.1%**	**6.4%**	**7.5%**	**6.9%**	**8.7%**	**3.8%**	**4.0%**

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

13. LPG consumption (Thousand Metric Tonne)

LPG category	2015-16	2016-17	December			April-December		
			2016	2017 (P)	Gr (%)	2016-17	2017-18 (P)	Gr (%)
1. PSU Sales :								
LPG-Packed Domestic	17,181.7	18,871.4	1,697.6	1,781.6	4.9	13,902.8	15,038.9	8.2
LPG-Packed Non-Domestic	1,464.4	1,775.9	159.6	198.4	24.3	1,304.7	1,540.2	18.0
LPG-Bulk	317.2	364.3	30.4	29.0	-4.5	269.8	268.2	-0.6
Auto LPG	170.9	167.3	14.5	15.4	6.1	124.6	138.7	11.3
Sub-Total (PSU Sales)	**19134.2**	**21178.9**	**1902.1**	**2024.4**	**6.4**	**15602.0**	**16985.9**	**8.9**
2. Direct Private Imports	489.0	358.4	36.9	30.9	-16.3	325.0	279.9	-13.9
Total (1+2)	**19,623.2**	**21,537.3**	**1,939.0**	**2,055.3**	**6.0**	**15,927.0**	**17,265.8**	**8.4**

14. Kerosene allocation vs upliftment (Kilo Litres)

Product	2014-15		2015-16		2016-17		April-December 2016		April-December 2017 (P)	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
Kerosene	89,75,538	88,78,352	86,85,384	85,36,752	69,33,030	66,78,447	54,62,868	52,62,830	38,35,820	35,66,538

15. Industry marketing infrastructure (as on 01.1.2018) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL	ESSAR	SHELL	Others	Total
POL Terminal/ Depots **(Nos.)**	127	78	81	18	2		6*	**312**
Aviation Fuel Stations **(Nos.)**	106	50	39	28			1@	**224**
Retail Outlets (total) **(Nos.)**	26,663	14,255	14,783	1,400	4,175	100	5^	**61,381**
out of which, Rural ROs	7,333	2,577	3,199	127	1,467	12		**14,715**
SKO/LDO agencies **(Nos.)**	3,899	1,001	1,638					**6,538**
LPG Distributors (total) **(Nos.) (PSUs only)**	9,911	4,868	4,690					**19,469**
LPG Bottling plants **(Nos.) (PSUs only)**	91	50	47				1#	**189**
LPG Bottling capacity **(TMTPA) (PSUs only)**	9,085	3,723	3,882				24~	**16,714**
LPG registered domestic consumers **(Nos. crore) (PSUs only)**	12.4	6.5	6.7					**25.7**
LPG active domestic consumers **(Nos. crore) (PSUs only)**	10.3	5.6	6.0					**21.9**

$ RIL= 5 Terminals and 13 Mini Depots; * 4 MRPL & 2 NRL; @ ShellMRPL -1, ^ MRPL-5 # NRL-1; ~ NRL-24

16. Natural gas at a glance

(MMSCM)

Details	2015-16	2016-17	December 2016 (Actual)	December 2017 (P) (Target)	December 2017 (P)	April-December 2016-17 (Actual)	April-December 2017-18 (P) (Target)	April-December 2017-18 (P)
(a) Gross production	32,249	31,897	2,737	2,972	2,751	23,885	26,124	24,688
- ONGC	21,177	22,088	1,927	2,046	2,001	16,420	17,902	17,651
- Oil India Limited (OIL)	2,838	2,937	246	252	237	2,212	2,260	2,197
- Private / Joint Ventures (JVs)	8,235	6,872	564	674	514	5,254	5,962	4,839
(b) Net availability (excluding flare gas and loss)	31,129	30,848	2,643		2,673	23,087		24,008
(c) LNG import	21,388	24,686	1,903		2,031	18,755		19,389
(d) Total consumption including internal consumption (Net availability+Import) (b+c)	52,517	55,534	4,545		4,705	41,843		43,396
(e) Total consumption (in BCM)	52.5	55.5	4.5		4.7	41.8		43.4
(f) Import dependency based on consumption (%), {c/d*100}	40.7	44.5	41.9		43.2	44.8		44.7

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		17,200	Sq. KM
Blocks awarded		33	Nos.
Production of CBM gas	December 2017 (P)	70.8	MMSCM
Production of CBM gas-Cumulative	April-December 2017 (P)	540.9	MMSCM

18. Gas pipelines under execution / construction as on 01.12.2017

Network/ Region	Entity	Length sanctioned (KM)	Design cap. (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"
Surat - Paradip	GAIL (India) Ltd	2,112	74.81	36"/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		**13,489**		

19. Existing LNG terminals

Location	Promoters	Capacity (MMTPA) as on 01.12.2017	Capacity utilisation in % April-November 2017 (P)
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	103.84
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	57.47
Dabhol	RGPPL (GAIL - NTPC JV)	1.692 MMTPA in phase-1 without break water-to be increased to 5 MMTPA	30.62
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	13.8
Total Capacity		**26.692 MMTPA**	

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

State	Entity operating	Geographical region	CNG stations	PNG connections			No. of CNG vehicles
				Domestic	Industrial	Commercial	
			As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017
Haryana	Haryana City Gas, Adani Gas Limited, GAIL Gas Ltd.	Sonepat, Faridabad, Gurgaon	42	69,811	214	294	1,25,227
Andhra Pradesh	Bhagyanagar Gas Ltd	Kakinada, Vijayawada	15	9,959	50	1	16,519
Telangana	Bhagyanagar Gas Ltd	Hyderabad	32	6,252	8	5	24,191
Assam	Assam Gas Co. Ltd	Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat	0	30,953	1,039	405	0
Gujarat	Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Energy Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd	Gandhinagar, Mehsana, Sabarkantha, Nadiad, Halol, Hazira, Rajkot, Khambhat, Karjan-Palej, Valsad, Navsari, Surendernagar, Vadodara, Ahmedabad, Surat, Ankleshwar, Bharuch & surrounding areas, Bhavnagar, Jamnagar, Vapi, Anand	409	17,70,167	17,606	4,447	8,99,086
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampura	26	27,688	84	117	26,418
Rajasthan	GAIL Gas Ltd	Kota	3	242	2	15	6,710

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

State	Entity operating	Geographical region	CNG stations	PNG connections			No. of CNG vehicles
				Domestic	Industrial	Commercial	
			As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017
Maharashtra	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, GAIL Gas Ltd , Gujarat Gas Limited	Mumbai, Greater Mumbai, Thane & adjoining contiguous areas including Mira Bhayender, Navi Mumbai, Thane City, Ambernath, Bhiwandi, Kalyan, Dombivily, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Pune City including Pimpri-Chinchwad and adjoining contiguous areas of Chakan, Hinjewadi, Talegaon GA & Thane Rural.	254	11,25,068	3,628	211	7,56,364
Tripura	Tripura Natural Gas Co. Ltd	Agartala	6	31,551	399	50	10,294
West Bengal	Great Eastern Energy Corporation Ltd	Kolkata	7	0	0	0	3,349
Uttar Pradesh	GAIL Gas Ltd, Sanwariya Gas, Green Gas, Central U.P. Gas, Siti Energy Ltd	Agra, Allahabad, Bareilly, Divyapur, Firozabad, Kanpur, Khurja, Lucknow, Mathura, Meerut & Moradabad	66	74,053	335	595	1,25,999

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

State	Entity operating	Geographical region	CNG stations	PNG connections			No. of CNG vehicles
				Domestic	Industrial	Commercial	
			As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017	As on 01.12.2017
New Delhi	Indraprastha Gas Ltd	NCT of Delhi (Including Noida & Ghaziabad)	424	8,25,109	2,099	1,130	9,93,893
Karnataka	Gail Gas Ltd.	Bengaluru	3	4,170	31	14	271
Chandigarh	IndianOil- Adani Gas	Chandigarh	2	5,319	0	0	2,500
Kerala	IndianOil- Adani Gas	Ernakulam		1,025	2	0	
Daman and Diu	IndianOil- Adani Gas	Daman and Diu	1	351	6	1	325
Dadra & Nagar Haveli	Gujarat Gas Ltd.	Dadra & Nagar Haveli	1	280	0	6	0
Total			**1,291**	**39,81,998**	**25,503**	**7,291**	**29,91,146**

21. Major natural gas pipeline network

Nature of pipeline		GAIL	Reliance	GSPL	ARN	IOCL	ONGC	Total
Natural gas	Length (KM)	11092	1784	2613	817	140	24	**16470**
As on 01.12.2017	Cap (MMSCMD)	242.0*	83.5	43.0	3.24	9.5	6.0	**387.3**

*GAIL's pipeline cap. 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

Period	Domestic Natural Gas price in US$/MMBTU (GCV basis)	Gas price ceiling in US$/MMBTU (GCV basis)
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

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

International FOB prices/ Exchange rates ($/bbl)

Particulars	2015-16	2016-17	Apr-Dec'17
Crude oil (Indian Basket)	46.17	47.56	53.56
Petrol	61.72	58.10	65.43
Diesel	55.02	56.59	65.04
Kerosene	55.71	56.81	64.08
LPG ($/MT)	394.71	393.31	474.17
FO ($/MT)	235.13	258.92	314.97
Naphtha ($/MT)	420.14	415.17	473.19
Exchange (Rs./$)	65.46	67.09	64.49

Customs & excise duty rates (w.e.f. 04.10.2017)

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%
Sub. Dom 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	**

*8% for scheduled commuter airlines from regional connectivity scheme airports; ** Crude oil, Petrol, Diesel, ATF and Natural Gas are outside GST levy; # 2 % Education Cess and 1 % Seconday & Higher Education Cess is levied on Customs duty.

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

Particulars	Petrol*	Diesel*
Price before taxes (Excise Duty and VAT) and dealer commission	32.43	34.23
Excise Duty	20.10	16.00
State taxes (incl state taxes on dealer commission)	15.15	9.13
Dealer commission	3.59	2.52
Retail selling price (RSP)	**71.27**	**61.88**
Particulars	**PDS SKO***	**Sub. Dom LPG***
Price before taxes and dealer/distributor commission	19.55	656.93
GST (incl GST on dealer/distributor comm.)	1.08	35.31
Dealer/distributor commission	2.02	49.24
Retail Selling Price	**22.65**	**741.00**
Less:Cash Compensation on LPG to consumers under DBTL		245.36
Effective cost to consumer after subsidy		**495.64**

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

Impact of change in product price $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 $1/bbl & $10/MT.		Impact of change in exchange rate by ₹ 1/$	
	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)
PDS SKO	0.4	190	0.47	220
Domestic LPG	9.22	1130	8.17	1,000
Total		**1320**		**1,220**

Note: The above calculations are based on RTP for January 2018

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

Under-recoveries/subsidy & burden sharing

Product	2015-16	2016-17	Apr-Sep'2017
Per unit under-recovery/subsidy (Rs./litre/Cylinder)			
PDS SKO	13.47	11.39	8.79
Sub. Dom LPG	150.82*	108.78	128.86
Total under-recoveries including DBTL Subsidy (Rs. Crores)			
PDS SKO	11496	7595	2066
Sub. Dom LPG	# 16074	12133	7502
Total	**27,570**	**19,728**	**9,568**
Burden sharing (Rs. Crores)			
Government	26,301	19,728	9568**
Upstream	1,251	0	0
OMCs	18	0	0

* Average of DBTL subsidy and under-recovery towards non-DBTL domestic LPG;

Includes under recovery towards non-DBTL domestic LPG (2015-16: Rs.18 Cr);

** Pending sanction for 2017-18 (H1) -Sub.Dom LPG Rs.1,445 Cr; PDS-SKO Rs. 786 Cr.

Sales & profit of petroleum sector (Rs. Crores)

Apr-Sep'2017	Turnover	PAT
Upstream/midstream Companies (PSU)	66,279	12,447
Downstream Companies (PSU)	4,78,222	14,006
Standalone Refineries (PSU)	45,374	1,899
Private-RIL	1,42,195	16,461

Borrowings of OMCs (Rs. Crores)

Company	As on Mar`16	As on Mar`17	As on Sep`17
IOCL	52,469	54,820	38,805
BPCL	15,976	23,159	18,191
HPCL	21,337	21,250	14,188

Petroleum sector contribution to Central/State Govt.

Particulars	2015-16	2016-17	Apr-Sep'2017
Central Government	2,58,443	3,34,534	1,44,857
% to total revenue receipt	21%	24%	-
State Governments	1,60,209	1,89,770	1,01,086
% to total revenue receipt	8%	8%	-
Total (Rs. Crores)	**4,18,652**	**5,24,304**	**2,45,943**

Subsidy as a % 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	2013-14	2014-15	2015-16 (P)	2016-17 (P)	2017-18	
					Target*	Actual (Apr-Dec) (P)
ONGC Ltd	32,470	29,997	29,502	28,010	29,968	26,498
ONGC Videsh Ltd (OVL)	35,357	7,172	6,783	18,360	7,088	4,042
Oil India Ltd (OIL)	9,351	3,774	3,550	10,514	9,252	7,214
GAIL (India) Ltd	4,070	1,632	1,880	2,180	2,053	2,040
Indian Oil Corp. Ltd. (IOCL)	16,661	14,314	14,368	21,918	20,162	12,569
Hindustan Petroleum Corp. Ltd (HPCL)	2,642	2,670	5,459	5,861	7,110	3,959
Bharat Petroleum Corp. Ltd (BPCL)	4,374	6,875	10,926	16,810	7,101	4,372
Mangalore Refinery & Petrochem Ltd (MRPL)	1,449	2,747	1,550	614	1,138	594
Chennai Petroleum Corp. Ltd (CPCL)	229	466	1,318	1,293	845	648
Numaligarh Refinery Ltd (NRL)	372	103	237	500	1,261	230
Balmer Lawrie Co. Ltd (BL)	120	80	38	73	50	66
Total	**1,07,095**	**69,830**	**75,611**	**106,133**	**86,028**	**62,232**

* Targets are for full financial year 2017-18

(P) Provisional

- Includes expenditure on investment in JV/subsidiaries.

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 BCM/year of Gas	2.74 MMSCMD
1 TCF of Gas Reserve	3.88 MMSCMD
1 MMTPA of LNG	3.60 MMSCMD
1 MT of LNG	1,314 SCM

1 MMBTU	25.2 SCM @10000 kcal/SCM
GCV (Gross Calorific Value)	10,000 kcal/SCM
NCV (Net Calorific Value)	90% of GCV
Gas required for 1 MW power generation	4,541 SCM/day
Power generation from 1 MMSCMD of gas	220 MW