

# Ready Reckoner

Snapshot of India's Oil & Gas data

November, 2017



**Petroleum Planning & Analysis Cell**

(Ministry of Petroleum & Natural Gas)

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## Highlights for the month

- Indigenous crude oil and condensate production during November 2017 was marginally higher by 0.2% than that of November 2016. ONGC registered de-growth of 1.5% during the month over November 2016 while OIL registered a growth of 3.7%. However PSC fields registered growth of 2.9% during the month over November 2016. On cumulative basis, there was a marginal decrease of 0.2% over April-November 2016 in indigenous crude oil and condensate production.
- The total installed refinery capacity of the country increased to 247.6 MMTPA.
- Total crude oil processed during November 2017 was 21.2 MMT, which was an increase of 6.5% over November 2016 mainly due to increase in crude oil processed by PSU/JV refineries. On cumulative basis crude oil processed was higher by 2.1% over the period April- November 2016. Indigenous crude oil processed during April- November 2017 decreased by 1.1% over corresponding period of last year due to lower production by PSC fields.
- Production of petroleum products during November 2017 saw a growth of 8.3% over November 2016. On cumulative basis a growth of 3.4% was recorded in production over the period April- November 2016.
- Crude oil imports increased by 1.6% during November 2017 as compared to November 2016. On cumulative basis crude oil imports marginally increased by 0.6% over the corresponding period of the previous year. Product imports increased by 7.7% during November 2017 as compared to November 2016 mainly due to increase in LPG imports for domestic consumption. On cumulative basis, product imports decreased by 4.9% over the corresponding period of the previous year.
- Export of POL products increased by 3.1% during November 2017 as compared to November 2016 primarily due to higher surplus availability of MS, naphtha and HSD. On cumulative basis, a marginal increase of 1.0% was recorded in product exports over the period April- November 2016.
- Petroleum product consumption registered a growth of 6.2% during November 2017 as compared to 10.4% growth during November 2016. Except for naphtha & SKO all other products registered positive growth during November 2017. During the period April-November 2017, petroleum product consumption registered a growth of 3.4% as compared to 9.6% growth during the same period last year. Lower growth during the period April to November 2017 was mainly due to heavy rains in many states and high de-growth in consumption of SKO (-32.2%), naphtha (-10.6%), FO/LHSH (-8.5%) & bitumen (-3.8).

•	Total LPG consumption continuously for the last fifty one months in a row recorded a positive growth. There was a growth of 6.7% during November 2017 and a cumulative growth of 8.8% for the period April-November 2017. Out of the five regions, Northern region had the highest share in consumption of 31.0% followed by Southern region at 28.7%, Western region at 22.1%, Eastern region at 15.8% and North Eastern region at 2.3% during the period April-November 2017. Eastern region had the highest growth of 18.2% in total LPG consumption during the period April-November 2017.
•	SKO registered a de-growth of 18.8 % during November 2017 and cumulative de-growth of 33.2% during the period April-November 2017. 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 during November 2017 was 2714.9 MMSCM which was higher by 1.7% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 21936.2 MMSCM for the current year till November 2017 was higher by 5.6% compared with the corresponding period of the previous year (21148.6 MMSCM).
•	LNG import for the month of November 2017 was 2581.0 MMSCM which was 27.8% higher than the corresponding month of the previous year. The cumulative import of 17357.5 MMSCM for the current year till November 2017 was higher by 3.0% compared with the corresponding period of the previous year (16852.4 MMSCM).
•	The price of Brent Crude averaged \$ 62.62/bbl during November 2017 as against \$ 57.36/bbl during October 2017. The Indian basket crude price averaged \$ 61.32/bbl during November 2017 as against \$ 56.06/bbl during the previous month.
•	The import bill of crude oil is estimated to increase 15 % from \$ 70 billion in 2016-17 to \$ 81 billion in 2017-18 considering Indian basket crude oil price of \$ 55/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 1 <sup>st</sup> 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 4 <sup>th</sup> AE	274.6 Target	134.7 1 <sup>st</sup> 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)	November (P)		April-November (P)		
				2016	2017	2016-17	2017-18	
5	Index of Industrial Production <sup>#</sup>	Growth %	3.3	4.6	4.2	2.2	5.5	2.5
6	Imports	\$ Billion	381.0	384.4	33.5	40.0	243.3	296.5
7	Exports	\$ Billion	262.3	275.9	20.1	26.2	175.4	196.5
8	Trade Balance	\$ Billion	-118.7	-108.5	-13.4	-13.8	-67.9	-100.0
9	Foreign Exchange Reserves <sup>@</sup>	\$ Billion	355.6	370.0	365.3	400.7	-	-

\*Revised on account of using new series of IIP and WPI with base 2011-12. <sup>#</sup>IIP is for the month of October 2017 & cumulative for Apr-Oct'17, Base year of IIP changed to 2011-12; <sup>@</sup>2015-16-as on Mar 25, 2016; 2016-17-as on Mar 31, 2017, November 2016- as on November 25, 2016 and November 2017-as on November 24, 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	November		April-November	
					2016	2017 (P)	2016-17	2017-18 (P)
1	Crude oil production in India	MMT	36.9	36.0	2.9	2.9	24.0	23.9
2	Consumption of petroleum products	MMT	184.7	194.6	16.4	17.4	130.2	134.6
3	Production of petroleum products	MMT	231.9	243.5	19.7	21.3	160.9	166.4
4	Imports & exports:							
Crude oil imports		MMT	202.9	213.9	18.8	19.1	143.8	144.7
		\$ Billion	64.0	70.2	6.0	8.1	44.3	53.1
Petroleum products (POL) imports		MMT	29.5	36.3	2.8	3.0	25.0	23.8
		\$ Billion	10.0	10.6	0.9	1.1	6.5	8.2
Gross petroleum imports (Crude + POL)		MMT	232.3	250.2	21.5	22.0	168.8	168.5
		\$ Billion	73.9	80.8	6.9	9.2	50.8	61.3
Petroleum products exports		MMT	60.5	65.5	5.3	5.5	43.9	44.3
		\$ Billion	27.1	29.0	2.3	3.1	18.6	21.7
LNG imports		\$ Billion	6.7	6.1	0.5	0.8	3.8	4.6
5	Petroleum imports as percentage (%) of India's gross imports (in value)	%	19.4	21.0	20.6	23.1	20.9	20.7
6	Petroleum exports as percentage (%) of India's gross exports (in value)	%	10.3	10.5	11.6	11.9	10.6	11.1
7	Import dependency of crude (on consumption basis)	%	80.6%	81.7%	82.4%	83.7%	82.0%	82.6%

### 3. Indigenous crude oil production (Million Metric Tonne)

Details	2015-16	2016-17	November			April-November		
			2016 (Actual)	2017 (P) (Target)*	2017 (P)	2016-17 (Actual)	2017-18 (P) (Target)*	2017-18 (P)
ONGC	21.1	20.9	1.7	1.9	1.7	13.8	15.3	14.0
Oil India Limited (OIL)	3.2	3.3	0.3	0.3	0.3	2.1	2.4	2.3
Private / Joint Ventures (JVs)	11.2	10.4	0.8	0.9	0.8	7.0	7.2	6.6
<b>Total Crude Oil</b>	<b>35.5</b>	<b>34.5</b>	<b>2.8</b>	<b>3.1</b>	<b>2.8</b>	<b>23.0</b>	<b>24.9</b>	<b>22.9</b>
Condensate	1.4	1.5	0.1		0.1	1.0		1.1
<b>Total (Crude + Condensate) (MMT)</b>	<b>36.9</b>	<b>36.0</b>	<b>2.9</b>	<b>3.1</b>	<b>2.9</b>	<b>24.0</b>	<b>24.9</b>	<b>23.9</b>
<b>Total (Crude + Condensate) (Million Bbl)</b>	<b>270.8</b>	<b>263.9</b>	<b>21.1</b>	<b>22.7</b>	<b>21.1</b>	<b>175.8</b>	<b>182.6</b>	<b>175.5</b>

\*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	November		April-November	
			2016	2017 (P)	2016-17	2017-18 (P)
Total domestic production (MMTOE)	69.2	67.9	5.5	5.6	45.1	45.9
Overseas production (MMTOE)	10.1	16.2	1.7	1.6	9.1	12.7
<b>Overseas production as percentage (%) of domestic production</b>	<b>14.6%</b>	<b>23.9%</b>	<b>30.1%</b>	<b>27.9%</b>	<b>20.1%</b>	<b>27.7%</b>

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

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

Details		2015-16	2016-17	November		April-November	
				2016	2017 (P)	2016-17	2017-18 (P)
1	High Sulphur crude	166.1	177.4	14.5	16.2	117.6	123.4
2	Low Sulphur crude	66.7	67.9	5.5	5.0	44.8	42.5
<b>Total crude processed</b>		<b>232.9</b>	<b>245.4</b>	<b>19.9</b>	<b>21.2</b>	<b>162.4</b>	<b>165.8</b>
<b>Share of HS crude in total crude oil processing</b>		<b>71.3%</b>	<b>72.3%</b>	<b>72.6%</b>	<b>76.3%</b>	<b>72.4%</b>	<b>74.4%</b>

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)	213.50	80,997	5,23,974

**Note:** April-November 2017 imports are based on actuals and for the balance period, imports are estimated at crude oil price \$ 55/bbl and exchange rate Rs. 65/\$.

Impact of variation in crude oil price & exchange rate on value of crude oil imports for December, 2017- March, 2018 :

If crude prices changes by one \$/bbl - Net Import bill changes by Rs. 3,296 crores (\$0.51 bn)

If exchange rate of Rs./\$ changes by Rs. 1/\$ - Net Import bill changes by Rs. 2,789 crores (\$0.43 bn)

7. Self-sufficiency in petroleum products (Million Metric Tonnes)							
Particulars		2015-16	2016-17	November		April-November	
				2016	2017 (P)	2016-17	2017-18 (P)
1	Indigenous crude oil processing :	34.1	33.5	2.7	2.6	22.1	21.8
2	Products from indigenous crude (93.3% of crude oil processed)	31.8	31.3	2.5	2.4	20.6	20.4
3	Products from fractionators (Including LPG and Gas)	4.0	4.3	0.4	0.4	2.8	3.0
4	Total production from indigenous crude & condensate (2 + 3)	35.8	35.6	2.9	2.8	23.4	23.4
5	Total domestic consumption	184.7	194.6	16.4	17.4	130.2	134.6
<b>% Self-sufficiency (4 / 5)</b>		<b>19.4%</b>	<b>18.3%</b>	<b>17.6%</b>	<b>16.3%</b>	<b>18.0%</b>	<b>17.4%</b>



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

Com-pany	Refinery	Installed capacity (1.12.2017) (MMTPA)	Crude oil processing (MMT)							
			2015-16	2016-17	November			April-November		
					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	0.5	0.5	0.5	4.3	3.6	3.6
	Koyali (1965)	13.7	13.8	14.0	1.2	0.8	1.3	9.6	8.3	8.8
	Haldia (1975)	7.5	7.8	7.7	0.5	0.2	0.7	5.3	4.8	5.4
	Mathura (1982)	8.0	8.9	9.2	0.7	0.8	0.8	6.1	5.6	5.9
	Panipat (1998)	15.0	15.3	15.6	1.3	1.3	1.4	10.3	10.0	10.3
	Guwahati (1962)	1.0	0.9	0.9	0.07	0.07	0.09	0.6	0.6	0.7
	Digboi (1901)	0.65	0.6	0.5	0.05	0.04	0.06	0.3	0.3	0.4
	Bongaigaon(1979)	2.35	2.4	2.5	0.2	0.2	0.1	1.7	1.5	1.5
	Paradip (2016)	15.0	1.8	8.2	0.6	1.2	1.2	4.2	8.0	9.2
	<b>IOCL TOTAL</b>	<b>69.2</b>	<b>58.0</b>	<b>65.2</b>	<b>5.1</b>	<b>5.1</b>	<b>6.1</b>	<b>42.4</b>	<b>42.6</b>	<b>45.9</b>
CPCL	Manali (1969)	10.5	9.1	9.8	0.8	0.9	0.8	7.1	6.3	6.7
	CBR (1993)	1.0	0.5	0.5	0.04	0.04	0.03	0.4	0.3	0.3
	<b>CPCL-TOTAL</b>	<b>11.5</b>	<b>9.6</b>	<b>10.3</b>	<b>0.9</b>	<b>0.9</b>	<b>0.8</b>	<b>7.4</b>	<b>6.6</b>	<b>7.0</b>
BPCL	Mumbai (1955)	12.0	13.4	13.5	1.2	1.2	1.3	9.5	8.5	9.0
	Kochi (1966)	15.5	10.7	11.8	1.0	1.2	1.2	7.5	8.8	9.0
BORL	Bina (2011)	6.0	6.4	6.4	0.2	0.5	0.2	4.1	3.9	4.4
NRL	Numaligarh (1999)	3.0	2.5	2.7	0.3	0.2	0.2	1.7	1.8	1.9
	<b>BPCL-TOTAL</b>	<b>36.5</b>	<b>33.0</b>	<b>34.4</b>	<b>2.7</b>	<b>3.1</b>	<b>2.9</b>	<b>22.8</b>	<b>23.0</b>	<b>24.2</b>

Com-pany	Refinery	Installed capacity (1.12.2017) (MMTPA)	Crude oil processing (MMT)							
			2015-16	2016-17	November			April-November		
					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	0.04	0.05
MRPL	Mangalore (1996)	15.0	15.5	16.0	1.4	1.4	1.4	10.5	10.3	10.4
	<b>ONGC TOTAL</b>	<b>15.1</b>	<b>15.6</b>	<b>16.1</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>10.5</b>	<b>10.4</b>	<b>10.5</b>
HPCL	Mumbai (1954)	7.5	8.0	8.5	0.7	0.7	0.7	5.6	5.7	5.7
	Visakh (1957)	8.3	9.2	9.3	0.8	0.8	0.6	6.0	6.3	6.4
HMEL	Bathinda (2012)	11.3	10.7	10.5	0.8	0.9	1.0	7.1	5.5	4.9
	<b>HPCL- TOTAL</b>	<b>27.1</b>	<b>27.9</b>	<b>28.3</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>18.6</b>	<b>17.5</b>	<b>17.0</b>
RIL*	Jamnagar (DTA) (1999)	33.0	32.4	32.8	2.7	2.7	2.7	22.0	22.0	22.1
	Jamnagar (SEZ) (2008)	35.2	37.1	37.4	3.2	3.2	3.1	24.7	24.7	25.4
EOL	Vadinar (2006)	20.0	19.1	20.9	1.7	1.7	1.7	14.0	13.6	13.8
<b>All India</b>		<b>247.6</b>	<b>232.9</b>	<b>245.4</b>	<b>19.9</b>	<b>20.5</b>	<b>21.2</b>	<b>162.4</b>	<b>160.4</b>	<b>165.8</b>

\* 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	Length (KM)	1,191	1,193	660	1,017	5,301	937	-	-	10,299
(as on 1.12.2017)	Cap (MMTPA)	58.5	8.4	8.7	9.0	48.6	6.0	-	-	139.2
Products	Length (KM)	-	654	-	-	7,950	1,936	3,354	2,688	16,582
(as on 1.12.2017)	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
	<b>Weighted average</b>	<b>0.27</b>	<b>5.06</b>	<b>7.77</b>	<b>6.08</b>
BPCL	Kochi	3.17	6.87	5.16	5.69
	Mumbai	3.97	6.37	5.36	7.25
	<b>Weighted average</b>	<b>3.62</b>	<b>6.59</b>	<b>5.26</b>	<b>6.48</b>
HPCL	Mumbai	4.88	8.09	6.95	7.89
	Visakhapatnam	1.12	5.46	5.51	5.75
	<b>Weighted average</b>	<b>2.84</b>	<b>6.68</b>	<b>6.20</b>	<b>6.75</b>
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 not declared; \*\* GRM of North Eastern refineries are including excise duty benefit;

# Commissioned on 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		November 2016		November 2017 (P)		April-November 2016		April-November 2017 (P)	
	Prod <sup>n</sup>	Consump <sup>n</sup>	Prod <sup>n</sup>	Consump <sup>n</sup>	Prod <sup>n</sup>	Consump <sup>n</sup>	Prod <sup>n</sup>	Consump <sup>n</sup>	Prod <sup>n</sup>	Consump <sup>n</sup>
LPG	11.3	21.6	0.9	1.9	1.1	2.0	7.2	14.0	8.0	15.2
MS	36.6	23.8	2.9	2.0	3.1	2.1	24.1	16.0	24.8	17.4
NAPHTHA	19.7	13.2	1.6	1.1	1.6	1.0	13.0	9.1	13.3	8.1
ATF	13.8	7.0	1.1	0.6	1.3	0.6	9.0	4.5	9.4	4.9
SKO	6.0	5.4	0.4	0.4	0.3	0.3	4.2	3.8	2.9	2.6
HSD	102.1	76.0	8.5	6.7	9.0	7.3	67.4	50.7	70.7	53.4
LDO	0.6	0.4	0.07	0.04	0.04	0.1	0.3	0.3	0.3	0.3
LUBES	1.0	3.5	0.08	0.3	0.08	0.3	0.7	2.3	0.7	2.4
FO/LSHS	12.0	7.2	1.0	0.6	0.8	0.6	8.2	4.9	7.3	4.5
BITUMEN	5.2	5.9	0.5	0.5	0.5	0.6	3.3	3.6	3.1	3.4
PET COKE	12.9	24.0	1.1	1.7	1.2	1.9	8.5	16.6	9.1	17.6
OTHERS	22.3	6.6	1.5	0.5	2.4	0.6	14.9	4.4	16.8	4.8
<b>ALL INDIA</b>	<b>243.5</b>	<b>194.6</b>	<b>19.7</b>	<b>16.4</b>	<b>21.3</b>	<b>17.4</b>	<b>160.9</b>	<b>130.2</b>	<b>166.4</b>	<b>134.6</b>
<b>Growth (%)</b>	<b>5.0%</b>	<b>5.4%</b>	<b>0.8%</b>	<b>10.4%</b>	<b>8.3%</b>	<b>6.2%</b>	<b>7.1%</b>	<b>9.6%</b>	<b>3.4%</b>	<b>3.4%</b>

Note: Prod<sup>n</sup> - Production; Consump<sup>n</sup> - Consumption

13. LPG consumption (Thousand Metric Tonne)								
LPG category	2015-16	2016-17	November			April-November		
			2016	2017 (P)	Gr (%)	2016-17	2017-18 (P)	Gr (%)
<b>1. PSU Sales :</b>								
LPG-Packed Domestic	17,181.7	18,871.4	1,643.1	1,738.9	5.8	12,205.2	13,257.3	8.6
LPG-Packed Non-Domestic	1,464.4	1,775.9	157.5	185.0	17.5	1,145.1	1,341.7	17.2
LPG-Bulk	317.2	364.3	30.7	29.0	-5.5	239.4	239.2	-0.1
Auto LPG	170.9	167.3	13.9	14.7	5.4	110.2	123.3	11.9
<b>Sub-Total (PSU Sales)</b>	<b>19134.2</b>	<b>21178.9</b>	<b>1845.2</b>	<b>1967.6</b>	<b>6.6</b>	<b>13699.9</b>	<b>14961.5</b>	<b>9.2</b>
<b>2. Direct Private Imports</b>	<b>489.0</b>	<b>358.4</b>	<b>27.7</b>	<b>31.7</b>	<b>14.2</b>	<b>288.2</b>	<b>262.1</b>	<b>-9.1</b>
<b>Total (1+2)</b>	<b>19,623.2</b>	<b>21,537.3</b>	<b>1,872.9</b>	<b>1,999.2</b>	<b>6.7</b>	<b>13,988.0</b>	<b>15,223.5</b>	<b>8.8</b>

14. Kerosene allocation vs upliftment (Kilo Litres)										
Product	2014-15		2015-16		2016-17		H1, 2016-17		H1, 2017-18 (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	39,75,216	38,30,874	26,22,056	24,12,360

15. Industry marketing infrastructure (as on 01.12.2017) (Provisional)									
Particulars	IOCL	BPCL	HPCL	RIL	ESSAR	SHELL	Others	Total	
POL Terminal/ Depots (Nos.)	127	77	81	18	2	-	6*	311	
Aviation Fuel Stations (Nos.)	106	50	38	28	-	-	1 <sup>@</sup>	223	
Retail Outlets (total) (Nos.)	26,578	14,197	14,720	1,400	4,087	93	4 <sup>^</sup>	61,079	
out of which, Rural ROs	7,289	2,563	3,177	127	1,424	12	-	14,592	
SKO/LDO agencies (Nos.)	3,899	1,001	1,638	-	-	-	-	6,538	
LPG Distributors (total) (Nos.) (PSUs only)	9,863	4,848	4,664	-	-	-	-	19,375	
LPG Bottling plants (Nos.) (PSUs only)	91	50	47	-	-	-	1 <sup>#</sup>	189	
LPG Bottling capacity (TMTPA) (PSUs only)	9,025	3,723	3,762	-	-	-	24 <sup>~</sup>	16,534	
LPG registered domestic consumers (Nos. crore) (PSUs only)	12.3	6.5	6.7	-	-	-	-	25.5	
LPG active domestic consumers (Nos. crore) (PSUs only)	10.2	5.6	5.9	-	-	-	-	21.7	

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

## 16. Natural gas at a glance

(MMSCM)

Details	2015-16	2016-17	November			April-November		
			2016 (Actual)	2017 (P) (Target)	2017 (P)	2016-17 (Actual)	2017-18 (P) (Target)	2017-18 (P)
(a) Gross production	32,249	31,897	2,670	2,891	2,715	21,149	23,153	21,936
- ONGC	21,177	22,088	1,867	1,988	1,958	14,494	15,857	15,650
- Oil India Limited (OIL)	2,838	2,937	245	251	235	1,965	2,007	1,960
- Private / Joint Ventures (JVs)	8,235	6,872	558	652	522	4,690	5,289	4,326
(b) Net availability (excluding flare gas and loss)	31,129	30,848	2,584		2,642	20,445		21,334
(c) LNG import	21,388	24,686	2,019		2,581	16,852		17,357
(d) Total consumption including internal consumption (Net availability+Import) (b+c)	52,517	55,534	4,603		5,223	37,297		38,692
(e) Total consumption (in BCM)	52.5	55.5	4.6		5.2	37.3		38.7
(f) Import dependency based on consumption (%), {c/d*100}	40.7	44.5	43.9		49.4	45.2		44.9

**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	November 2017 (P)	68.6
Production of CBM gas-Cumulative	April-November 2017 (P)	470.1
		MMSCM
		MMSCM

### 18. Gas pipelines under execution / construction as on 01.11.2017

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"
<b>Total</b>		<b>13,489</b>		

### 19. Existing LNG terminals

Location	Promoters	Capacity (MMTPA) as on 01.11.2017	Capacity utilisation in % April-October 2017 (P)
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	102.76
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	56.76
Dabhol	RGPPL (GAIL - NTPC JV)	1.692 MMTPA in phase-1 without break water-to be increased to 5 MMTPA	21.52
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	12.32
<b>Total Capacity</b>		<b>26.692 MMTPA</b>	

## 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 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017
<b>Haryana</b>	Haryana City Gas, Adani Gas Limited, GAIL Gas Ltd.	Sonepat, Faridabad, Gurgaon	40	68,351	283	203	1,25,227
<b>Andhra Pradesh</b>	Bhagyanagar Gas Ltd	Kakinada, Vijayawada	15	7,009	1	41	16,244
<b>Telangana</b>	Bhagyanagar Gas Ltd	Hyderabad	32	4,846	5	6	24,007
<b>Assam</b>	Assam Gas Co. Ltd	Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat	0	30,888	405	1,039	0
<b>Gujarat</b>	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	405	17,58,914	4,435	17,545	887,262
<b>Madhya Pradesh</b>	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampura	26	25,818	116	81	26,348
<b>Rajasthan</b>	GAIL Gas Ltd	Kota	3	242	15	2	6,624



## 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 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017
<b>Maharashtra</b>	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, Dombivli, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Pune City including Pimpri-Chinchwad and adjoining contiguous areas of Chakan, Hinjewadi, Talegaon GA & Thane Rural.	253	11,05,915	208	3,610	7,47,251
<b>Tripura</b>	Tripura Natural Gas Co. Ltd	Agartala	6	31,134	50	399	10,208
<b>West Bengal</b>	Great Eastern Energy Corporation Ltd	Kolkata	7	0	0	0	3,302
<b>Uttar Pradesh</b>	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	65	69,116	514	322	1,25,280

## 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 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017	As on 01.11.2017
<b>New Delhi</b>	Indraprastha Gas Ltd	NCT of Delhi (Including Noida & Ghaziabad)	424	8,10,311	1,085	2,053	9,91,385
<b>Karnataka</b>	Gail Gas Ltd.	Bengaluru	3	3,908	13	29	253
<b>Chandigarh</b>	IndianOil- Adani Gas	Chandigarh	2	4,784	0	0	2,500
<b>Kerala</b>	IndianOil- Adani Gas	Ernakulam	0	883	0	3	0
<b>Daman and Diu</b>	IndianOil- Adani Gas	Daman and Diu	1	161	1	3	325
<b>Dadra &amp; Nagar Haveli</b>	Gujarat Gas Ltd.	Dadra & Nagar Haveli	0	184	6	0	0
<b>Total</b>			<b>1,282</b>	<b>39,22,464</b>	<b>7,137</b>	<b>25,336</b>	<b>29,66,216</b>

## 21. Major natural gas pipeline network

Nature of pipeline		GAIL	Reliance	GSPL	ARN	IOCL	ONGC	Total
<b>Natural gas</b>	Length (KM)	11091.8	1784	2613.2	816.8	140.413	24	16470
	As on 01.11.2017	Cap (MMSCMD)	242*	83.5	43	3.24	9.5	6

\*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-Nov'17
Crude oil (Indian Basket)	46.17	47.56	52.55
Petrol	61.72	58.10	64.49
Diesel	55.02	56.59	63.95
Kerosene	55.71	56.81	62.91
LPG (\$/MT)	394.71	393.31	461.73
FO (\$/MT)	235.13	258.92	310.02
Naphtha (\$/MT)	420.14	415.17	461.72
Exchange (Rs./\$)	65.46	67.09	64.52

Price buildup of petroleum products (Rs./litre/Cylinder)		
Particulars	Petrol*	Diesel*
Price before taxes and dealer commission	30.76	31.34
Central taxes	20.10	15.95
State taxes	14.7	8.63
Dealer commission	3.57	2.52
<b>Retail selling price (RSP)</b>	<b>69.13</b>	<b>58.44</b>
Particulars	PDS SKO*	Sub. Dom LPG*
Price before taxes and dealer/distributor commission	19.05	662.64
GST (incl GST on dealer/distributor comm.)	1.05	35.59
Dealer/distributor commission	2.01	49.25
<b>Retail Selling Price</b>	<b>22.12</b>	<b>747.00</b>
Less: Cash Compensation on LPG to consumers under DBTL		251.31
<b>Effective cost to consumer after subsidy</b>		<b>495.69</b>

Customs & excise duty rates (w.e.f. 04.10.2017)			
Product	Basic Customs	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 % Secondary & Higher Education Cess is levied on Customs duty.

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	0.41	190	0.47	220
Domestic LPG	9.32	1140	8.20	1,000
<b>Total</b>		<b>1330</b>		<b>1,220</b>

Note: The above calculations are based on RTP for December 2017

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

Under-recoveries/subsidy & burden sharing			
Product	2015-16	2016-17	Apr-Sep'2017
<b>Per unit under-recovery/subsidy (Rs./litre/Cylinder)</b>			
PDS SKO	13.47	11.39	8.79
Sub. Dom LPG	150.82*	108.78	128.86
<b>Total under-recoveries including DBTL Subsidy (Rs. Crores)</b>			
PDS SKO	11,496	7,595	2,066
Sub. Dom LPG	# 16074	12,133	7,502
<b>Total</b>	<b>27,570</b>	<b>19,728</b>	<b>9,568</b>
<b>Burden sharing (Rs. Crores)</b>			
Particulars	2015-16	2016-17	Apr-Sep 2017
Government	26,301	19,728	9568**
Upstream	1,251	0	0
OMCs	18	0	0
<p>* Average of DBTL subsidy and under-recovery towards non-DBTL domestic LPG;</p> <p># Includes under recovery towards non-DBTL domestic LPG (2015-16: Rs.18 Cr).</p> <p>** Pending sanction for 2017-18 (H1) -Sub.Dom LPG Rs.1,445 Cr; PDS-SKO Rs 786 Cr.</p>			

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%	-
<b>Total (Rs. Crores)</b>	<b>4,18,652</b>	<b>5,24,304</b>	<b>2,45,943</b>
Subsidy as a % of GDP (at current prices)			
Particulars	2014-15	2015-16	2016-17
Petroleum subsidy	0.62	0.25	0.18
<b>Note-</b> GDP figure for 2014-15 and 2015-16 at Revised Estimates and 2016-17 at Provisional Estimates			

## 24. Capital expenditure of PSU oil companies

(Rs in crores)

Company	2013-14	2014-15	2015-16 <sup>(P)</sup>	2016-17 <sup>(P)</sup>	2017-18	
					Target*	Actual (Apr-Nov) <sup>(P)</sup>
ONGC Ltd	32,470	29,997	29,502	28,010	29,968	24,376
ONGC Videsh Ltd (OVL)	35,357	7,172	6,783	18,360	7,088	3,575
Oil India Ltd (OIL)	9,351	3,774	3,550	10,514	9,252	6,825
GAIL (India) Ltd	4,070	1,632	1,880	2,180	2,053	1,859
Indian Oil Corp. Ltd. (IOCL)	16,661	14,314	14,368	21,918	20,162	10,723
Hindustan Petroleum Corp. Ltd (HPCL)	2,642	2,670	5,459	5,861	7,110	3,241
Bharat Petroleum Corp. Ltd (BPCL)	4,374	6,875	10,926	16,810	7,101	3,815
Mangalore Refinery & Petrochem Ltd (MRPL)	1,449	2,747	1,550	614	1,138	411
Chennai Petroleum Corp. Ltd (CPCL)	229	466	1,318	1,293	845	577
Numaligarh Refinery Ltd (NRL)	372	103	237	500	1,261	205
Balmer Lawrie Co. Ltd (BL)	120	80	38	73	50	64
<b>TOTAL</b>	<b>1,07,095</b>	<b>69,830</b>	<b>75,611</b>	<b>106,133</b>	<b>86,028</b>	<b>55,671</b>

\* 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				Volume conversion	
Product	Weight (MT)	Volume (KL)	Barrel (bbl)	From	To
LPG	1	1.844	11.60	1 US Barrel (bbl)	159 litres
Petrol (MS)	1	1.411	8.50	1 US Barrel (bbl)	42 US Gallons
Diesel (HSD)	1	1.210	7.45	1 US Gallon	3.78 litres
Kerosene (SKO)	1	1.285	7.90	1 Kilo litre (KL)	6.29 bbl
ATF	1	1.288	8.10	1 Million barrels per day	49.8 MMTPA
Light Diesel Oil (LDO)	1	1.172	7.37	<b>Energy conversion</b>	
Furnace Oil (FO)	1	1.071	6.74	1 Kilocalorie (kcal)	4.187 kJ
Crude Oil	1	1.170	7.33	1 Kilocalorie (kcal)	3.968 Btu
Exclusive Economic Zone					
200 Nautical Miles	370.4 Kilometers				
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