

# Ready Reckoner

Snapshot of India's Oil & Gas data

January, 2019



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

As on 20.02.2019

## Index of Tables

Table	Description	Page
	Highlights for the month	<b>2-3</b>
1	Selected indicators of the Indian economy	<b>4</b>
2	Crude oil, LNG and petroleum products at a glance	<b>5</b>
3	Indigenous crude oil production	<b>6</b>
4	Domestic oil & gas production vis-à-vis overseas production	<b>6</b>
5	High Sulphur (HS) & Low Sulphur (LS) Crude Oil processing	<b>6</b>
6	Quantity and value of crude oil imports	<b>7</b>
7	Self-sufficiency in petroleum products	<b>7</b>
8	Refineries: Installed capacity and crude oil processing	<b>8-9</b>
9	Major crude oil and product pipeline network	<b>9</b>
10	Gross Refining Margins (GRM) of refineries	<b>10</b>
11	GRM of North-East refineries excluding excise duty benefit	<b>11</b>
12	Production and consumption of petroleum products	<b>11</b>
13	LPG consumption	<b>12</b>
14	Kerosene allocation vs upliftment	<b>12</b>
15	Industry marketing infrastructure	<b>12</b>
16	Natural gas at a glance	<b>13</b>
17	Coal Bed Methane (CBM) gas development in India	<b>13</b>
18	Major natural gas pipeline network	<b>14</b>
19	Gas pipelines under execution/ construction	<b>14</b>
20	Existing LNG terminals	<b>14</b>
21	Status of PNG connections, CNG stations and CNG vehicles across India	<b>15-17</b>
22	Domestic natural gas price and gas price ceiling	<b>17</b>
23	Information on prices, taxes and under-recoveries/subsidies	<b>18-19</b>
24	Capital expenditure of PSU oil companies	<b>20</b>
25	Conversion factors and volume conversion	<b>21</b>

## Highlights for the month

- Indigenous crude oil and condensate production during January 2019 was lower by 4.3% than that of January 2018. ONGC, OIL and PSC fields registered de-growth of 3.8%, 10.7% and 3.3% respectively during January 2019 as compared to January 2018. On cumulative basis de-growth of 3.8% was registered during April 2018-January 2019 over the corresponding period of the previous year.
- Total crude oil processed during January 2019 was 21.9 MMT, which was a decrease of 3.6% over January 2018. PSU/JV refineries registered a marginal increase of 0.3% while private refineries registered a decrease of 10.9%. On cumulative basis an increase of 1.8% was registered in the total crude oil processed during April 2018-January 2019 over the corresponding period of the previous year. Refineries processed 74.4% high sulphur crude oil during January 2019 against 77.1% during January 2018.
- Production of petroleum products during January 2019 saw a de-growth of 2.6% over January 2018. On cumulative basis an increase of 3.4% was registered in the total production of petroleum products during April 2018-January 2019 over the corresponding period of the previous year.
- Crude oil imports decreased by 1.9% during January 2019 and increased by 3.2% during April 2018-January 2019 as compared to the same period of the previous year.
- Product imports decreased by 3.6% during January 2019 and 10.1% during April 2018-January 2019 over the corresponding period of the previous year. Decrease in POL product imports during April 2018-January 2019 was mainly due to decrease in imports of HSD and petcoke.
- Exports of products decreased by 24.3% during January 2019 and 8.6% during April 2018-January 2019 over the corresponding period of the previous year. Decrease in POL product exports during April 2018-January 2019 was due to decrease in exports of MS, naphtha, HSD, LOBS/lube oil, FO, bitumen and VGO.
- Petroleum product consumption registered a growth of 6.4% during January 2019 and a cumulative growth of 3.2% during the period April 2018-January 2019. Last year during January 2018, a growth of 12.4% and cumulative growth of 5.6% during period April 2017-January 2018 was observed. Except for naphtha (-1.2%), SKO (-16.7%), lubes & greases (-5.3%) and petcoke (-2.9%) all other products registered a growth during January 2019.

<ul style="list-style-type: none"> <li>Total LPG consumption recorded a positive growth of 11.1% during January 2019 and a cumulative growth of 5.7% for the period April 2018-January 2019. Last year, during January 2018, a growth of 4.7% was observed and the cumulative growth during April 2017-January 2018 was 8.0%. This year, during the period April 2018-January 2019, 44.1 lakh DBCs and 356.4 lakh new connections were released out of which 275.8 lakh were released under PMUY. Under PMUY, nearly 141.6 lakh new connections have been released more during the current year in this period as compared to last year. Total 631.8 lakh connections were released under PMUY till 31.01.2019 since inception. During January 2019, out of the five regions, Northern region had the highest share in total LPG consumption of 32.8% followed by Southern region at 27.2%, Western region at 22.9%, Eastern region at 15% and North Eastern region at 2%. Northern region had the highest growth of 14.8% in total LPG consumption during January 2019.</li> </ul>
<ul style="list-style-type: none"> <li>SKO consumption registered a de-growth of 16.7% during January 2019 and cumulative de-growth of 11% during the period April 2018-January 2019. Last year, during January 2018, a de-growth of 13.2% and cumulative de-growth of 29.5% during the period April 2017-January 2018 was observed. The cumulative reduction in PDS SKO allocation was 11.9% during Q1, Q2 &amp; Q3 2018-19 compared to the same period of the previous year.</li> </ul>
<ul style="list-style-type: none"> <li>Gross production of natural gas in January 2019 was 2841.5 MMSCM which was higher by 5.4% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 27491.7 MMSCM for the current financial year till January 2019 was higher by 0.4% compared with the corresponding period of the previous year.</li> </ul>
<ul style="list-style-type: none"> <li>LNG import in January 2019 was 2131.4 MMSCM which was 11.6% lower than the corresponding month of the previous year. The cumulative import of 22848.8 MMSCM for the current year till January 2019 was higher by 5.6% compared with the corresponding period of the previous year.</li> </ul>
<ul style="list-style-type: none"> <li>The price of Brent Crude averaged \$59.46/bbl during January 2019 as against \$57.39/bbl during December 2018 and \$69.18/bbl during January 2018. The Indian basket crude price averaged \$59.27/bbl during January 2019 as against \$57.77/bbl during December 2018 and \$ 67.06/bbl during January 2018.</li> </ul>
<ul style="list-style-type: none"> <li>The import bill of crude oil is estimated to increase by 27% from \$88 billion in 2017-18 to \$112 billion in 2018-19 considering actuals upto December 2018 and Indian basket crude oil price at \$57.77/bbl and exchange rate at Rs. 70.73/\$ for January 2019-March 2019.</li> </ul>

## 1. Selected indicators of the Indian economy

Economic indicators		Unit/ Base	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Population (as on 1 <sup>st</sup> May, 2011)	Billion	1.2	-	-	-	-	-
2	GDP at constant (2011-12 Prices)	Growth %	6.4	7.4	8.0 3 <sup>rd</sup> RE	8.2 2 <sup>nd</sup> RE	7.2 1 <sup>st</sup> RE	7.2 1 <sup>st</sup> AE
3	Agricultural Production (Food grains)	MMT	265.0	252.0	251.6	275.1	284.8 4 <sup>th</sup> AE	141.6 1 <sup>st</sup> AE (Kharif)
		Growth %	3.1	-4.9	-0.2	9.4	3.5	0.6 <sup>§</sup>
4	Gross Fiscal Deficit	%	-4.5	-4.1	-3.9	-3.5	-3.5	-3.4 RE

Economic indicators		Unit/ Base	2016-17	2017-18	January		April-January	
					2017-18	2018-19 (P)	2017-18	2018-19 (P)
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.6	4.4	<sup>#</sup> 7.3	<sup>#</sup> 2.4 QE	<sup>*</sup> 3.7	<sup>*</sup> 4.6
6	Imports	\$ Billion	384.4	465.6	41.1	41.1	384.4	427.7
7	Exports	\$ Billion	275.9	303.5	25.4	26.4	248.2	271.8
8	Trade Balance	\$ Billion	-108.5	-162.1	-15.7	-14.7	-136.2	-155.9
9	Foreign Exchange Reserves <sup>@</sup>	\$ Billion	370.0	424.4	417.8	398.2	-	-

<sup>§</sup>Agricultural production (Kharif), 2017-18=140.73 (4<sup>th</sup> AE); IIP is for the month of <sup>#</sup>December and <sup>\*</sup>April-December; <sup>@</sup>2016-17-as on March 31, 2017, 2017-18-as on March 30, 2018, January 2018- as on January 26, 2018 and January 2019-as on January 25, 2019; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates.

**Source:** Ministry of Commerce & Industry, Ministry of Agriculture & Farmer's Welfare, Reserve Bank of India

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

Details		Unit/ Base	2016-17	2017-18	January		April-January	
					2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	Crude oil production in India	MMT	36.0	35.7	3.0	2.8	29.9	28.8
2	Consumption of petroleum products	MMT	194.6	206.2	17.2	18.3	170.8	176.1
3	Production of petroleum products	MMT	243.5	254.3	22.9	22.3	211.8	219.0
4	Gross natural gas production	MMSCM	31,897	32,648	2,695	2,842	27,382	27,492
5	Natural gas consumption	MMSCM	55,534	58,059	5,028	4,903	48,264	49,669
6	Imports & exports:							
	Crude oil imports	MMT	213.9	220.4	20.1	19.7	184.4	190.2
		\$ Billion	70.2	87.8	9.6	8.3	71.4	95.2
	Petroleum products (POL) imports	MMT	36.3	35.5	2.9	2.8	30.1	27.1
		\$ Billion	10.6	13.6	1.4	1.2	11.2	13.3
	Gross petroleum imports (Crude + POL)	MMT	250.2	255.9	23.0	22.5	214.5	217.3
		\$ Billion	80.8	101.4	11.0	9.5	82.6	108.5
	Petroleum products exports	MMT	65.5	66.8	6.0	4.5	56.3	51.4
		\$ Billion	29.0	34.9	3.6	2.4	28.7	32.6
	LNG imports	MMSCM	24,686	26,328	2,411	2,131	21,640	22,849
		\$ Billion	6.1	7.7	0.8	0.8	6.1	8.3
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.0	21.8	26.9	23.1	21.5	25.4
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	10.5	11.5	14.1	9.0	11.6	12.0
9	Import dependency of crude (on consumption basis)	%	81.7	82.9	83.1	84.7	82.8	83.7

October 2018 to January 2019 private import (POL) quantity prorated on the basis of October 2017-September 2018 actual data provided by DGCIS.

Crude oil imports (\$ Billion) during 2018-19 does not include value of crude oil quantity of 0.8 MMT imported at ISPRIL, Mangalore.

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

Details	2016-17	2017-18	January			April-January		
			2017-18	2018-19 (Target)*	2018-19 (P)	2017-18	2018-19 (Target)*	2018-19 (P)
ONGC	20.9	20.8	1.7	2.0	1.6	17.5	19.1	16.4
Oil India Limited (OIL)	3.3	3.4	0.3	0.3	0.3	2.8	3.1	2.8
Private / Joint Ventures (JVs)	10.4	9.9	0.8	0.9	0.8	8.2	8.6	8.1
<b>Total Crude Oil</b>	<b>34.5</b>	<b>34.0</b>	<b>2.8</b>	<b>3.2</b>	<b>2.7</b>	<b>28.6</b>	<b>30.8</b>	<b>27.3</b>
ONGC condensate	1.4	1.5	0.1		0.1	1.2		1.3
PSC condensate	0.1	0.2	0.02		0.03	0.2		0.2
<b>Total condensate</b>	<b>1.5</b>	<b>1.6</b>	<b>0.1</b>		<b>0.2</b>	<b>1.3</b>		<b>1.4</b>
<b>Total (Crude + Condensate) (MMT)</b>	<b>36.0</b>	<b>35.7</b>	<b>3.0</b>	<b>3.2</b>	<b>2.8</b>	<b>29.9</b>	<b>30.8</b>	<b>28.8</b>
<b>Total (Crude + Condensate) (Million Bbl)</b>	<b>263.9</b>	<b>261.6</b>	<b>21.8</b>	<b>23.7</b>	<b>20.9</b>	<b>219.2</b>	<b>225.6</b>	<b>211.0</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	2016-17	2017-18	January		April-January	
			2017-18	2018-19 (P)	2017-18	2018-19 (P)
Total domestic production (MMTOE)	67.9	68.3	5.7	5.7	57.3	56.3
Overseas production (MMTOE)	17.4	21.7	1.9	2.2	18.1	20.5
<b>Overseas production as percentage of domestic production</b>	<b>25.6%</b>	<b>31.8%</b>	<b>33.5%</b>	<b>38.9%</b>	<b>31.6%</b>	<b>36.5%</b>

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

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

Details		2016-17	2017-18	January		April-January	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	High Sulphur crude	177.4	188.4	17.6	16.3	157.4	162.6
2	Low Sulphur crude	67.9	63.6	5.2	5.6	53.3	52.0
<b>Total crude processed</b>		<b>245.4</b>	<b>251.9</b>	<b>22.8</b>	<b>21.9</b>	<b>210.7</b>	<b>214.6</b>
<b>Percentage share of HS crude in total crude oil processing</b>		<b>72.3%</b>	<b>74.8%</b>	<b>77.1%</b>	<b>74.4%</b>	<b>74.7%</b>	<b>75.8%</b>

## 6. Quantity and value of crude oil imports

Year	Quantity (MMT)	\$ Million	Rs. Crore
2017-18 (P)	220.4	87,803	5,66,450
2018-19 (Estimated)	228.6	111,525	7,81,171

**Note:** April - December, 2018 Imports are based on actuals and for January 2019- March 2019 imports are estimated at average price of Indian basket crude oil for December 2018 i.e. \$57.77/bbl and average exchange rate for December 2018 i.e. Rs.70.73/\$.

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

If crude prices changes by one \$/bbl - Crude oil import bill changes by Rs. 3,029 crores

If exchange rate of Rs./\$ changes by Rs. 1/\$ - Crude oil import bill changes by Rs. 2,473 crores

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

Particulars		2016-17	2017-18	January		April-January	
				2017-18	2018-19 (P)	2017-18	2018-19 (P)
1	Indigenous crude oil processing	33.5	32.8	2.7	2.6	27.3	26.4
2	Products from indigenous crude (93.3% of crude oil processed)	31.3	30.6	2.5	2.4	25.5	24.6
3	Products from fractionators (Including LPG and Gas)	4.3	4.6	0.4	0.4	3.8	4.1
4	Total production from indigenous crude & condensate (2 + 3)	35.6	35.2	2.9	2.8	29.3	28.7
5	Total domestic consumption	194.6	206.2	17.2	18.3	170.8	176.1
<b>% Self-sufficiency (4 / 5)</b>		<b>18.3%</b>	<b>17.1%</b>	<b>16.9%</b>	<b>15.3%</b>	<b>17.2%</b>	<b>16.3%</b>

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

Company	Refinery	Installed capacity (1.2.2019) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	January			April-January		
					2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)	2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)
IOCL	Barauni (1964)	6.0	6.5	5.8	0.6	0.6	0.6	4.8	5.4	5.5
	Koyali (1965)	13.7	14.0	13.8	1.3	0.7	1.2	11.4	11.2	11.4
	Haldia (1975)	7.5	7.7	7.7	0.7	0.7	0.6	6.3	6.7	6.6
	Mathura (1982)	8.0	9.2	9.2	0.8	0.7	0.7	7.6	7.8	8.1
	Panipat (1998)	15.0	15.6	15.7	1.4	1.4	1.4	13.0	13.5	13.7
	Guwahati (1962)	1.0	0.9	1.0	0.09	0.09	0.00	0.9	0.9	0.7
	Digboi (1901)	0.65	0.5	0.7	0.06	0.06	0.06	0.6	0.5	0.6
	Bongaigaon(1979)	2.35	2.5	2.4	0.2	0.2	0.2	2.0	1.8	2.1
	Paradip (2016)	15.0	8.2	12.7	1.1	1.3	1.4	11.6	11.9	11.9
	<b>IOCL-TOTAL</b>	<b>69.2</b>	<b>65.2</b>	<b>69.0</b>	<b>6.2</b>	<b>5.7</b>	<b>6.2</b>	<b>58.1</b>	<b>59.8</b>	<b>60.6</b>
CPCL	Manali (1969)	10.5	9.8	10.3	0.9	0.9	1.0	8.5	8.6	8.5
	CBR (1993)	1.0	0.5	0.5	0.05	0.00	0.05	0.4	0.3	0.4
		<b>CPCL-TOTAL</b>	<b>11.5</b>	<b>10.3</b>	<b>10.8</b>	<b>1.0</b>	<b>0.9</b>	<b>1.0</b>	<b>8.9</b>	<b>8.9</b>
BPCL	Mumbai (1955)	12.0	13.5	14.1	1.3	1.2	1.2	11.6	11.4	12.2
	Kochi (1966)	15.5	11.8	14.1	1.4	1.4	1.5	11.5	12.9	13.3
BORL	Bina (2011)	7.8	6.4	6.7	0.6	0.7	0.7	5.6	5.1	4.4
NRL	Numaligarh (1999)	3.0	2.7	2.8	0.3	0.2	0.2	2.4	2.4	2.4
	<b>BPCL-TOTAL</b>	<b>38.3</b>	<b>34.4</b>	<b>37.7</b>	<b>3.5</b>	<b>3.5</b>	<b>3.7</b>	<b>31.1</b>	<b>31.8</b>	<b>32.3</b>

Company	Refinery	Installed capacity (1.2.2019) (MMTPA)	Crude oil processing (MMT)							
			2016-17	2017-18	January			April-January		
					2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)	2017-18 (Actual)	2018-19 (Target)*	2018-19 (P)
ONGC	Tatipaka (2001)	0.066	0.09	0.08	0.007	0.005	0.007	0.07	0.05	0.05
MRPL	Mangalore (1996)	15.0	16.0	16.1	1.5	1.5	1.5	13.4	13.4	13.5
	<b>ONGC-TOTAL</b>	<b>15.1</b>	<b>16.1</b>	<b>16.2</b>	<b>1.5</b>	<b>1.5</b>	<b>1.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>
HPCL	Mumbai (1954)	7.5	8.5	8.6	0.7	0.7	0.7	7.2	7.1	7.2
	Visakh (1957)	8.3	9.3	9.6	0.8	0.8	0.8	8.0	8.0	8.1
HMEL	Bathinda (2012)	11.3	10.5	8.8	1.0	0.9	1.0	6.9	9.1	10.4
	<b>HPCL- TOTAL</b>	<b>27.1</b>	<b>28.3</b>	<b>27.1</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>22.1</b>	<b>24.1</b>	<b>25.7</b>
RIL	Jamnagar (DTA) (1999)	33.0	32.8	33.2	2.9	2.9	2.2	27.7	27.7	26.9
	Jamnagar (SEZ) (2008)	35.2	37.4	37.3	3.3	3.3	3.2	32.0	32.0	31.1
NEL <sup>#</sup>	Vadinar (2006)	20.0	20.9	20.7	1.8	1.7	1.7	17.3	15.0	15.5
	<b>All India</b>	<b>249.4</b>	<b>245.4</b>	<b>251.9</b>	<b>22.8</b>	<b>21.9</b>	<b>21.9</b>	<b>210.7</b>	<b>212.7</b>	<b>214.6</b>

\*Targets are as received from oil companies. RIL target for 2018-19 is previous year crude processing; <sup>#</sup>Nayara Energy Limited (formerly Essar Oil Limited). **Note:** Some sub-totals/ totals may not add up due to rounding off at individual levels.

### 9. Major crude oil and product pipeline network (as on 01.02.2019)

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,283	1,193	688	1,017	5,301	937	-	-	<b>10419</b>
	Cap (MMTPA)	60.6	8.4	10.7	11.3	48.6	6.0	-	-	<b>145.6</b>
Products	Length (KM)	-	654	-	-	8,748	2,241	3,371	2,395	<b>17409</b>
	Cap (MMTPA)	-	1.7	-	-	45.6	19.5	38.1	9.4	<b>114.3</b>

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

### 10. Gross Refining Margins (GRM) of refineries (\$/bbl)

Company	Refinery	2015-16	2016-17	2017-18	2018-19 (9M)
IOCL	Barauni	2.93	6.52	6.60	3.39
	Koyali	6.80	7.55	9.44	6.12
	Haldia	3.96	6.80	6.86	4.89
	Mathura	3.30	7.01	7.09	5.53
	Panipat	4.15	7.95	7.74	5.36
	Guwahati **	15.88	22.14	21.88	17.80
	Digboi **	16.17	24.49	24.86	23.63
	Bongaigaon **	11.09	20.15	20.62	17.84
	Paradip #	-0.65	4.22	7.02	4.22
	<b>Weighted average</b>	<b>5.06</b>	<b>7.77</b>	<b>8.49</b>	<b>5.83</b>
BPCL	Kochi	6.87	5.16	6.44	5.12
	Mumbai	6.37	5.36	7.26	5.38
	<b>Weighted average</b>	<b>6.59</b>	<b>5.26</b>	<b>6.85</b>	<b>5.25</b>
HPCL	Mumbai	8.09	6.95	8.35	6.00
	Visakhapatnam	5.46	5.51	6.55	4.44
	<b>Weighted average</b>	<b>6.68</b>	<b>6.20</b>	<b>7.40</b>	<b>5.17</b>
CPCL	Chennai	5.27	6.05	6.42	3.92
MRPL	Mangalore	5.20	7.75	7.54	3.72
NRL	Numaligarh **	23.68	28.56	31.92	26.76
BORL	Bina	11.70	11.80	11.70	10.10
RIL	Jamnagar	10.80	11.00	11.60	9.50
NEL <sup>@</sup>	Vadinar	10.81	9.14	8.95	*

\*Data not Available; \*\* GRM of North Eastern refineries are including excise duty benefit. For GRM excluding excise duty benefit, refer table

11; # Commissioned in February, 2016; <sup>@</sup>Nayara Energy Limited (formerly Essar Oil Limited)

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

Company	Refinery	2015-16	2016-17	2017-18	2018-19 (9M)
IOCL	Guwahati	1.26	1.12	3.70	1.40
	Digboi	4.16	7.73	8.27	9.43
	Bongaigaon	0.08	6.03	6.22	4.83
NRL	Numaligarh	8.06	8.50	11.43	10.67

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

Products	2017-18		January-2018		January-2019 (P)		Apr 2017-Jan 2018		Apr 2018-Jan 2019 (P)	
	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.4	23.3	1.1	2.1	1.1	2.3	10.2	19.3	10.6	20.4
MS	37.8	26.2	3.4	2.1	3.3	2.4	31.5	21.7	31.7	23.4
NAPHTHA	20.0	12.9	1.8	1.3	1.6	1.3	16.8	10.7	16.6	11.8
ATF	14.7	7.6	1.4	0.7	1.4	0.7	12.0	6.3	12.9	6.9
SKO	4.3	3.8	0.3	0.3	0.4	0.3	3.5	3.3	3.4	2.9
HSD	108.1	81.1	9.7	6.7	9.3	7.1	90.3	67.2	92.1	69.2
LDO	0.6	0.5	0.06	0.06	0.06	0.06	0.4	0.4	0.6	0.5
LUBES	1.0	3.9	0.1	0.3	0.1	0.3	0.8	3.1	0.8	3.2
FO/LSHS	10.3	6.7	0.8	0.6	1.0	0.6	8.8	5.7	8.5	5.5
BITUMEN	5.3	6.1	0.5	0.6	0.6	0.7	4.1	4.6	4.4	5.2
PET COKE	13.9	25.7	1.3	1.8	1.0	1.7	11.6	21.9	11.5	18.3
OTHERS	26.2	8.3	2.5	0.7	2.6	0.9	21.5	6.7	26.0	8.7
<b>ALL INDIA</b>	<b>254.3</b>	<b>206.2</b>	<b>22.9</b>	<b>17.2</b>	<b>22.3</b>	<b>18.3</b>	<b>211.8</b>	<b>170.8</b>	<b>219.0</b>	<b>176.1</b>
<b>Growth (%)</b>	<b>4.4%</b>	<b>5.9%</b>	<b>11.0%</b>	<b>12.4%</b>	<b>-2.6%</b>	<b>6.4%</b>	<b>4.5%</b>	<b>5.6%</b>	<b>3.4%</b>	<b>3.2%</b>

Note: Prod - Production; Cons - Consumption

### 13. LPG consumption (Thousand Metric Tonne)

LPG category	2016-17	2017-18	January			April-January		
			2017-18	2018-19 (P)	Gr (%)	2017-18	2018-19 (P)	Gr (%)
<b>1. PSU Sales :</b>								
LPG-Packed Domestic	18871.4	20,351.8	1818.5	2012.4	10.7	16,857.4	17,830.0	5.8
LPG-Packed Non-Domestic	1775.9	2,085.8	185.9	227.2	22.2	1,726.6	1,920.1	11.2
LPG-Bulk	364.3	355.4	29.6	29.9	0.9	298.6	262.6	-12.1
Auto LPG	167.3	184.4	15.6	15.3	-1.8	154.8	151.0	-2.5
<b>Sub-Total (PSU Sales)</b>	<b>21,178.9</b>	<b>22,977.4</b>	<b>2,049.7</b>	<b>2,284.8</b>	<b>11.5</b>	<b>19,037.4</b>	<b>20,163.6</b>	<b>5.9</b>
<b>2. Direct Private Imports*</b>	429.3	364.5	32.1	27.5	-14.4	305.2	273.6	-10.4
<b>Total (1+2)</b>	<b>21,608.2</b>	<b>23,341.8</b>	<b>2,081.7</b>	<b>2,312.3</b>	<b>11.1</b>	<b>19,342.7</b>	<b>20,437.2</b>	<b>5.7</b>

\*April to September 2018 import data are actuals provided by DGCIS and October 2018-January 2019 import data are prorated on the basis of October 2017 to September 2018 actual data provided by DGCIS.

### 14. Kerosene allocation vs upliftment (Kilo Litres)

Product	2015-16		2016-17		2017-18		April-December 2018 (P)	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
PDS Kerosene	86,85,384	85,36,752	69,33,030	66,78,447	50,21,828	46,69,164	33,77,936	31,69,405

### 15. Industry marketing infrastructure (as on 01.02.2019) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL	NEL <sup>##</sup>	SHELL	Others	Total
POL Terminal/ Depots (Nos.) <sup>§</sup>	125	78	83	18	2	-	6	312
Aviation Fuel Stations (Nos.) <sup>@</sup>	115	56	42	30	-	-	1	244
Retail Outlets (total) (Nos.) <sup>^</sup>	27,510	14,689	15,402	1,400	5,063	144	6	64,214
out of which Rural ROs	7,777	2,679	3,448	127	1,795	19	-	15,845
SKO/LDO agencies (Nos.)	3,889	1,001	1,638	-	-	-	-	6,528
LPG Distributors (total) (Nos.) (PSUs only)	11,637	5,732	5,673	-	-	-	-	23,042
LPG Bottling plants (Nos.) (PSUs only) <sup>#</sup>	89	51	48	-	-	-	3	191
LPG Bottling capacity (TMTPA) (PSUs only) <sup>&amp;</sup>	9,246	3,942	4,197	-	-	-	173	17,558
LPG active domestic consumers (Nos. crore) (PSUs only)	12.0	6.6	7.0	-	-	-	-	25.6

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

## 16. Natural gas at a glance

(MMSCM)

Details	2016-17	2017-18	January			April-January		
			2017-18	2018-19 (Target)	2018-19 (P)	2017-18	2018-19 (Target)	2018-19 (P)
(a) Gross production	31,897	32,648	2,695	3,115	2,841	27,383	29,695	27,492
- ONGC	22,088	23,429	1,965	2,265	2,170	19,616	21,699	20,586
- Oil India Limited (OIL)	2,937	2,881	238	248	222	2,435	2,636	2,283
- Private / Joint Ventures (JVs)	6,872	6,338	492	601	449	5,331	5,359	4,623
(b) Net availability (excluding flare gas and loss)	30,848	31,731	2,617		2,772	26,624		26,820
(c) LNG import	24,686	26,328	2,411		2,131	21,640		22,849
(d) Total consumption including internal consumption (b+c)	55,534	58,059	5,028		4,903	48,264		49,669
(e) Total consumption (in BCM)	55.5	58.1	5.0		4.9	48.3		49.7
(f) Import dependency based on consumption (%), {c/d*100}	44.5	45.3	48.0		43.5	44.8		46.0

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

## 17. Coal Bed Methane (CBM) gas development in India

Prognosticated CBM resources	92	TCF
Established CBM resources	9.9	TCF
Total available coal bearing areas	26,000	Sq. KM
Exploration initiated	16,613	Sq. KM
Blocks awarded	33	Nos.
Production of CBM gas	January 2019 (P)	62.1
Production of CBM gas	April 2018-January 2019 (P)	596.6
		MMSCM
		MMSCM

## 18. Major natural gas pipeline network as on 01.02.2019

Nature of pipeline		GAIL	Reliance	GSPL	ARN <sup>^</sup>	IOCL	Total
Natural gas	Length (KM)	11,410	1,784	2,593	299	140	16,226
	Cap (MMSCMD)	229.6	83.5	43.0	2.9	9.5	368.5

<sup>^</sup>Excludes CGD pipeline network

## 19. Gas pipelines under execution / construction as on 01.02.2019

Network/ Region	Entity	Length sanctioned (KM)	Design capacity (MMSCMD)	Pipeline size
Kochi - Kottanad - Bengaluru - Mangalore	GAIL(India) Ltd.	1,056	16	24"/18"/12"
Dabhol -Bengaluru (DBPL) Spur Lines, Phase-2	GAIL(India) Ltd.	302	16	36"/30"/24"/18"
Jagdishpur- Haldia-Bokaro-Dhamra (JHBDPL)	GAIL(India) Ltd.	2,539	16	30"/24"/18"/12"/8"/4"
Mallavaram-Bhopal-Bhilwara-Vijaipur	GSPL India Transco Ltd.	1,881	78.25	42"/36"/30"/24"/18"/12"
Mehsana - Bathinda	GSPL India Gasnet Ltd.	2,052	77.1	36"/24"/18"/12"
Bathinda -Jammu-Srinagar	GSPL India Gasnet Ltd.	725	42.4	24"/18"/16"/12"/8"/6"
Kakinada - Vizag-Srikakulam	AP Gas Distribution	391	90	24"/18"/8"/4"
Ennore- Nellore	Gas Transmission India Pvt.	250	36	24"/18"
Ennore-Thiruvallur-Bengaluru-Puducherry-Nagapattinam-Madurai-Tuticorin	Indian Oil Corporation Ltd.	1,385	84.7	28"/24"/16"/12"/10"
Jaigarh-Mangalore	H-Energy Pvt. Ltd.	635	17	24"
<b>Total</b>		<b>11,216</b>		

## 20. Existing LNG terminals

Location	Promoters	Capacity (MMTPA) as on 01.01.2019	Capacity utilisation in % April-December 2018 (P)
Dahej	Petronet LNG Ltd (PLL)	15 MMTPA	106.9%
Hazira	Hazira LNG Pvt Ltd (HLPL)	5 MMTPA	87.6%
Dabhol	RGPL (GAIL - NTPC JV)	1.692 MMTPA*	15.6%
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	9.3%
<b>Total Capacity</b>		<b>26.7 MMTPA</b>	

\* To increase to 5 MMTPA with breakwater

## 21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.02.2019

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
<b>Andhra Pradesh</b>	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	Kakinada, Vijaywada, East/West Godavari, Krishna district GA (excl. area already authorized)	30	19,580	23,348	106	5
<b>Assam</b>	Assam Gas Co. Ltd	Upper Assam GA	0	0	32,117	1,065	402
<b>Chandigarh</b>	Indian Oil-Adani Gas Pvt. Ltd.	Chandigarh	5	7,500	9,057	0	1
<b>Dadra &amp; Nagar Haveli</b>	Gujarat Gas Ltd.	UT of Dadra & Nagar Haveli GA	3	876	1,654	14	14
<b>Daman and Diu</b>	Indian Oil-Adani Gas Pvt. Ltd.	Daman	3	1,000	506	23	9
<b>Delhi</b>	Indraprastha Gas Ltd .	NCT of Delhi (Including Noida & Ghaziabad)	463	10,58,111	10,46,563	2,511	1,663
<b>Gujarat</b>	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 & Sabarkanta GA, Patan district GA, Surat-Bharuch-Ankleswar GA, Nadiad GA, Navsari GA, Rajkot GA, Surendranagar GA, Hazira GA, Valsad GA, Jamnagar GA, Bhavnagar GA, Kutch (West) GA, Amreli District GA, Dahej Vagra Taluka GA, Dahod District GA, Panchmahal District GA, Anand (excluding area authorised) district GA, Ahmedabad city and Daskroi area (excluding area already authorised) GA, Vadodara district, Vadodara Rural, Ahmedabad district GA, Anand area incl. Kanjari and Vadtal villages GA and Palanpur	489	8,98,661	20,00,365	18,455	4,797

## 21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.02.2019

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
<b>Haryana</b>	Haryana City Gas Distribution Ltd, Adani Gas Limited, GAIL Gas Ltd., Indraprastha Gas Ltd., Indian Oil-Adani Gas Pvt. Ltd.	Sonapat, Faridabad, Gurgaon, Rewari, Panipat	58	1,56,310	91,225	270	461
<b>Karnataka</b>	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	Bengaluru rural and urban districts GA, Tumkur district GA, Belgaum district GA	10	942	11,779	115	68
<b>Kerala</b>	Indian Oil-Adani Gas Pvt. Ltd.	Ernakulam	4	900	1,001	2	0
<b>Madhya Pradesh</b>	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijapur, Gwalior GA, Indore GA including Ujjain city	36	35,698	48,755	120	180
<b>Maharashtra</b>	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, Gujarat Gas Limited	Mumbai, Greater Mumbai, Thane Urban, 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 GA excl. areas already authorized, Palghar district and Thane Rural GA	289	8,99,038	13,99,037	4,023	245
<b>Odisha</b>	GAIL (India) Ltd.	Khordha district GA, Cuttack district GA	4	2,181	225	0	0
<b>Punjab</b>	IRM Energy Pvt. Ltd.	Fatehgarh Sahib	1	1,408	285	1	11

## 21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.02.2019

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Rajasthan	Rajasthan State Gas Limited	Kota, Neemrana & Kukas	5	8,108	1,118	6	14
Telangana	Bhagyanagar Gas Ltd.	Hyderabad	36	24,630	9,581	9	17
Tripura	Tripura Natural Gas Co. Ltd	Agartala	8	11,493	38,127	415	49
Uttar Pradesh	GAIL Gas Ltd, Sanwariya Gas Ltd, Green Gas Ltd, Central U.P. Gas Ltd, Siti Energy Ltd, Adani Gas Ltd, Indian Oil-Adani Gas Pvt. Ltd.	Meerut, Dibrayapur, Mathura, Agra, Kanpur ga, Bareilly GA, Lucknow district, Moradabad GA, Firozabad Geographical Area (TTZ), Khurja GA, Allahabad, Varanasi	101	1,50,073	1,41,146	445	676
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd., Haridwar Natural Gas Pvt. Ltd.	Udham Singh Nagar, Haridwar district GA	1	100	675	2	4
West Bengal	Great Eastern Energy Corporation Ltd.	Kultora, Asansol, Raniganj, Durgapur	7	3,660	0	0	0
<b>Total</b>			<b>1,553</b>	<b>32,80,269</b>	<b>48,56,564</b>	<b>27,582</b>	<b>8,616</b>

## 22. Domestic natural gas price and gas price ceiling (GCV basis)

Period	Domestic Natural Gas price in US\$/MMBTU	Gas price ceiling in US\$/MMBTU
November 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.50	5.30
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.30
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67

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

International FOB prices/ Exchange rates (\$/bbl)				Price buildup of petroleum products (Rs./litre/Cylinder)		
Particulars	2016-17	2017-18	Apr'18-Jan'19	Particulars	Petrol*	Diesel*
Crude oil (Indian Basket)	47.56	56.43	70.67	Price charged to dealers (excluding Excise Duty and VAT)	34.04	39.81
Petrol	58.10	67.83	76.82	Excise Duty	17.98	13.83
Diesel	56.59	68.19	83.39	Dealer Commission (Average)	3.57	2.52
Kerosene	56.81	67.65	83.23	VAT (incl VAT on dealer commission)	15.01	9.7
LPG (\$/MT)	393.17	485.92	534.60	<b>Retail selling price (RSP) -Rounded</b>	<b>70.60</b>	<b>65.86</b>
FO (\$/MT)	258.92	327.50	422.81	Particulars	PDS SKO*	Sub. Dom LPG*
Naphtha (\$/MT)	415.17	494.73	585.54	Price before taxes and dealer/distributor commission (after rounding off adjustment)	26.05	576.78
Exchange (Rs./\$)	67.09	64.45	69.80	Dealer/distributor commission	2.04	50.82
Customs, excise duty & GST rates (as on 01.12.2018)				GST (incl GST on dealer/distributor commission)	1.40	31.40
Product	Basic customs duty #	Excise duty	GST rates	<b>Retail Selling Price</b>	<b>29.50</b>	<b>659.00</b>
Petrol	2.50%	Rs 17.98/Ltr	**	Less: Cash Compensation on LPG to consumers under DBTL		165.47
Diesel	2.50%	Rs 13.83/Ltr	**	<b>Effective cost to consumer after subsidy</b>		<b>493.53</b>
PDS SKO	Nil	Not Applicable	5.00%	*Petrol and diesel at Delhi as per IOCL are as on 16th February 2019. PDS SKO at Mumbai and Sub. Dom LPG at Delhi are as on 1st February 2019 & 16th February 2019 respectively.		
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	5.00%	11% *	**	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)	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)		
PDS SKO	0.44	190	0.45	190		
Domestic LPG	10.12	1360	6.16	820		
<b>Total</b>	-	<b>1,550</b>	-	<b>1,010</b>		
<b>Note:</b> The above calculations are based on RTP for February 2019.						

\*2% for scheduled commuter airlines from regional connectivity scheme airports;  
 \*\* Crude oil, Petrol, Diesel, ATF and Natural Gas are outside GST levy; # Social welfare surcharge @ 3% on petrol and diesel and 10% on other products is levied on aggregate duties of Customs excluding CVD in lieu of IGST.\*\*\* Customs duty is Nil for import of Domestic LPG sold to household consumers (including NDEC) by PSU OMCs. Customs duty rate is 5% for other importers of domestic LPG.

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

Under-recoveries/subsidy & burden sharing			
PDS Kerosene			
Product	2016-17	2017-18	2018-19 (9M)
	Rs./Crore		
Under recovery	7,595	4,672	5,124
Subsidy under DBTK #	11	113	26
<b>Total</b>	<b>7,605</b>	<b>4,785</b>	<b>5,150</b>
#DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanism for direct transfer of subsidy paid to States/UTs.			
Domestic LPG under DBTL (Direct benefit transfer for LPG)			
Particulars	2016-17	2017-18	2018-19 (9M)
	Rs./Crore		
DBTL subsidy	12,905	20,880	25,700
PME & IEC^	-	25	92
<b>Total</b>	<b>12,905</b>	<b>20,905</b>	<b>25,792</b>
PMUY (Pradhan Mantri Ujjwala Yojana)			
Particulars	2016-17	2017-18	2018-19 (9M)
	Rs./Crore		
PMUY claims	2,999	2,496	3,754
PME & IEC^	-	63	34
<b>Total</b>	<b>2,999</b>	<b>2,559</b>	<b>3,788</b>
^ on payment basis			

Sales & profit of petroleum sector (Rs. Crores)				
Particulars	2017-18		2018-19 (9M)	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	1,48,473	27,231	149,106	30,373
Downstream Companies (PSU)	10,20,395	35,622	9,33,153	17,861
Standalone Refineries (PSU)	1,20,430	5,181	106,158	1,215
Private-RIL	3,15,357	33,612	310,965	26,607
Borrowings of OMCs (Rs. Crores), As on				
Company	Mar`17	Mar`18	Dec`18	
IOCL	54,820	58,030	64,573	
BPCL	23,159	23,351	22,767	
HPCL	21,250	20,991	20,618	
Petroleum sector contribution to Central/State Govt.				
Particulars	2016-17	2017-18	H1, 2018-19	
Central Government	3,34,534	3,43,862	1,56,865	
% of total revenue receipts	24%	23%		
State Governments	189770	2,09,155	1,15,499	
% of total revenue receipts	9%	9%		
<b>Total (Rs. Crores)</b>	<b>5,24,304</b>	<b>5,53,017</b>	<b>2,72,364</b>	
Subsidy as a percentage of GDP (at current prices)				
Particulars	2015-16	2016-17	2017-18	
Petroleum subsidy	0.25	0.18	0.17	
<b>Note:</b> GDP figure for 2015-16 and 2016-17 are Revised Estimates and 2017-18 are Provisional Estimates				

## 24. Capital expenditure of PSU oil companies

(Rs in crores)

Company	2015-16 (P)	2016-17 (P)	2017-18 (P)	2018-19	
				Target	April-January (P)
ONGC Ltd	29,502	28,010	72,383	32,077	22,798
ONGC Videsh Ltd (OVL)	6,783	18,360	6,240	5,886	3,947
Oil India Ltd (OIL)	3,550	10,514	8,395	4,300	2,633
GAIL (India) Ltd	1,880	2,180	3,613	4,722	4,729
Indian Oil Corp. Ltd. (IOCL)	14,368	21,918	20,345	22,862	21,456
Hindustan Petroleum Corp. Ltd (HPCL)	5,459	5,861	7,134	8,425	7,930
Bharat Petroleum Corp. Ltd (BPCL)	10,926	16,810	8,161	7,400	8,156
Mangalore Refinery & Petrochem Ltd (MRPL)	1,550	614	1,281	744	658
Chennai Petroleum Corp. Ltd (CPCL)	1,318	1,293	963	1,010	779
Numaligarh Refinery Ltd (NRL)	237	500	387	428	249
Balmer Lawrie Co. Ltd (BL)	38	73	78	125	114
Engineers India Ltd (EIL) #	-	-	-	1356	76
<b>Total</b>	<b>75,611</b>	<b>106,133</b>	<b>128,981</b>	<b>89,335</b>	<b>73,523</b>

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

# Included from 2018-19.

## 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	8.88	1 US Barrel (bbl)	42 US Gallons
Diesel (HSD)	1	1.210	7.61	1 US Gallon	3.78 litres
Kerosene (SKO)	1	1.285	8.08	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
<b>Exclusive Economic Zone</b>				1 Kilowatt-hour (kWh)	860 kcal
200 Nautical Miles	370.4 Kilometers			1 Kilowatt-hour (kWh)	3,412 Btu

Natural gas conversions			
1 Standard Cubic Metre	35.31 Cubic Feet	1 MMBTU	25.2 SCM @10000 kcal/SCM
1 BCM/year of Gas	2.74 MMSCMD	GCV (Gross Calorific Value)	10,000 kcal/SCM
1 TCF of Gas Reserve	3.88 MMSCMD	NCV (Net Calorific Value)	90% of GCV
1 MMTPA of LNG	3.60 MMSCMD	Gas required for 1 MW power generation	4,541 SCM/day
1 MT of LNG	1,325 SCM	Power generation from 1 MMSCMD of gas	220 MW