READY RECKONER

Oil Industry Information at a Glance

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

November 2015

Suggestions & Feedback

Readers are invited to send their suggestions & feedback for improvement of the Ready Reckoner to:

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Disclaimer

Preface

While conducting their operations, individual businesses and organizations generate large volumes of data which are processed by them for extracting useful information that is used for streamlining their operations or developing future plans. However, there always remains a need for aggregated data on an Industry basis.

The Ready Reckoner, PPAC's biannual publication, is an attempt to fill this gap. By continuously broadening its scope, this publication has been able to provide reliable oil and gas data in a comprehensive manner for use by policy makers and the petroleum industry. The current issue covers data for the first half of the financial year 2015-16.

In order to provide inclusive and relevant data on the oil and gas sector, your suggestions are welcome for enhancing, augmenting and enlarging the coverage of this Ready Reckoner.

All the Divisions of PPAC have tirelessly worked to bring out this edition. For enabling timely publication of the Ready Reckoner, contribution of data/information from the oil and gas industry is also appreciated.

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November 26, 2015

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

Analysis • Knowledge • Information

Vision

To be the most authentic official source for data and policy analysis on the hydrocarbon sector in the country.

Mission

1. To strengthen the existing data system in PPAC by adopting the latest techniques and best practices.
2. To render effective assistance to the Ministry of Petroleum & Natural Gas in the discharge of its responsibilities, particularly pricing of petroleum products and administration of subsidy schemes.
3. To monitor and analyze developments in the domestic oil and gas sector.
4. To undertake analysis of domestic and international energy markets.
5. To develop a cooperative framework for exchange of information and conduct of studies with other countries and international organizations in the energy sector.

Objectives

1. To ensure effective administration of the subsidy schemes notified by the Government
2. To monitor and analyze trends in prices of crude oil, petroleum products and natural gas and their impact on the oil companies and consumers, and prepare appropriate technical inputs for policy making.
3. To monitor developments in the domestic market and analyze options for policy changes in pricing, transportation and distribution of petroleum products.
4. To collect, compile and disseminate data on the domestic oil and gas sector in a continuous manner and maintain the data bank.
5. To ensure quality of data in terms of prescribed parameters such as accuracy, completeness and timeliness.
6. To prepare periodic reports on various aspects of oil and gas sector.

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Analysis • Knowledge • Information

Chapter-1
General

Table 1.1 : Selected Indicators of the Indian Economy

GENERAL

Sl. No.	Particulars	Source	Unit/ Base	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr- Sep 2015 (P)
1	Population (as on 1st March 2011)	Census of India	Billion	1.2	-	-	-	-	-
2	GDP at Factor Cost (Constant prices)	MOC&I	(GR.%)	6.7	5.1 (NS)	6.9 (NS)	7.3 (PE)	-	-
3	Agricultural Production (Foodgrains)	MOA	Million tonne	259.3	257.1	265.0	252.7	120.3	124.1
							4th AE	1st AE	1st AE
			(GR.%)	6.1	-0.8	3.1	-4.6		3.1
4	Index of Industrial Production	MOSPI	(GR.%)	2.9	1.1	-0.1	2.8	2.9	4.0
5	Imports	MOC&I	$ Billion	489.3	490.7	450.2	448.0	234.1	200.9
6	Exports	MOC&I	$ Billion	306.0	300.4	314.4	310.4	161.4	132.9
7	Trade Balance	MOC&I	$ Billion	-183.4	-190.3	-135.8	-137.6	-72.7	-68.0
8	Wholesale Price Index (All commodities) (Average)	MOC&I	2004-05=100	156.1	167.6	177.6	181.2	183.6	177.4
9	All India Consumer Price Index (Average):	Labour Bureau, Govt. of India							
	i) Industrial Workers		2001=100	194.8	215.2	236.0	250.8	248.3	261.3
	ii) Agricultural Labourers		1986-87=100	610.7	671.9	749.8	799.5	791.8	821.5
	iii) Rural Labourers		1986-87=100	611.0	673.3	750.5	802.2	794.0	825.8
10	Foreign Exchange Reserves- Total (as of March 30, 2012, March 29, 2013, March 28, 2014 and March 27, 2015, Sept. 26, 2014 and Sept 25, 2015)	RBI	$ Billion	294.4	292.6	303.7	341.4	314.2	350.0
11	Outstanding External Liabilities	MOF	₹ Crore	167950	172302	182729	194286	-	-
	(as of end of financial year)						(RE)		
12	Outstanding Internal Debt	MOF	₹ Crore	4300464	4866829	5404420	6084268	-	-
	(as of end of financial year)						(RE)		
13	Central Plan Outlay	MOF	₹ Crore	508596	498476	603573	426811	-	-
				(Actual)	(Actual)	(Actual)	(RE)		
14	Gross Fiscal Deficit	MOC&I	%	-5.8	-4.9	-4.4	-4.1	-	-
							(RE)		

PETROLEUM

Sl. No.	Particulars	Source	Unit/ Base	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr- Sep 2015 (P)
1	Crude Oil Production in India	OMCs /PPAC	MMT	38.1	37.9	37.8	37.5	18.6	18.7
2	Consumption of Petroleum Products in India	OMCs /PPAC	MMT	148.1	157.1	158.4	165.5	81.2	88.1
3	Petroleum Product Production in India	OMCs /PPAC	MMT	204.0	217.8	220.3	220.7	107.8	111.7
4	Imports & Exports								
	Crude Oil Imports	OMCs /PPAC	$ Billion	139.7	144.3	143.0	112.7	70.1	38.6
	Petroleum Products Imports	OMCs /PPAC	$ Billion	14.2	12.5	12.3	12.1	7.0	5.6
	Total Petroleum Imports (Crude Oil + Petroleum Products)	OMCs /PPAC	$ Billion	153.9	156.8	155.2	124.9	77.1	44.2
	Petroleum Products Exports	OMCs /PPAC	$ Billion	59.3	58.8	60.7	47.3	27.7	15.2
5	Gross Petroleum Imports as % of India's Gross Imports in Value Terms		%	31.4	32.0	34.5	27.9	32.9	22.0
6	Gross Petroleum Exports as % of India's Gross Exports in Value Terms		%	19.4	19.6	19.3	15.2	17.2	11.4
7	Import Dependency (Based on Consumption)		%	75.9	77.1	77.6	78.5	78.2	79.9

Note: RBI: Reserve Bank of India, POL: Petroleum Products, MOF: Ministry of Finance, MOC&I: Ministry of Commerce & Industry, CSO: Central Statistics Organisation, MOA: Ministry of Agriculture, OMCs: Oil Marketing Companies, PPAC: Petroleum Planning & Analysis Cell, RE: Revised Estimate, PE: Provisional Estimates, NS: New Series, MMT: Million Metric Tonnes
P= Provisional

Table 1.2 : Global Energy Consumption 2014

Sl.No.	Country	Oil (Mtoe)	Natural Gas (Mtoe)	Coal (Mtoe)	Nuclear Energy (Mtoe)	Hydro Electricity (Mtoe)	Renewables (Mtoe)	Total Energy (Mtoe)
1	**World**	4211.1	3065.5	3881.8	574.0	879.0	316.9	12928.4
	% Share	32.6	23.7	30.0	4.4	6.8	2.5	100.0
	Per Capita Consumption (Toe)	0.59	0.43	0.54	0.08	0.12	0.04	1.81
2	**China**	520.3	166.9	1962.4	28.6	240.8	53.1	2972.1
	% Share	17.5	5.6	66.0	1.0	8.1	1.8	100.0
	Per Capita Consumption (Toe)	0.41	0.13	1.55	0.02	0.19	0.04	2.35
3	**USA**	836.1	695.3	453.4	189.8	59.1	65.0	2298.7
	% Share	36.4	30.2	19.7	8.3	2.6	2.8	100.0
	Per Capita Consumption (Toe)	2.96	2.46	1.61	0.67	0.21	0.23	8.15
4	**Russian Federation**	148.1	368.3	85.2	40.9	39.3	0.1	681.9
	% Share	21.7	54.0	12.5	6.0	5.8	0.0	100.0
	Per Capita Consumption (Toe)	1.01	2.51	0.58	0.28	0.27	0.00	4.65
5	**India**	180.7	45.6	360.2	7.8	29.6	13.9	637.8
	% Share	28.3	7.1	56.5	1.2	4.6	2.2	100.0
	Per Capita Consumption(Toe)	0.17	0.04	0.35	0.01	0.03	0.01	0.61
6	**Japan**	196.8	101.2	126.5	0.0	19.8	11.6	456.1
	% Share	43.2	22.2	27.7	0.0	4.3	2.6	100.0
	Per Capita Consumption (Toe)	1.55	0.80	1.00	0.00	0.16	0.09	3.60
7	**UK**	69.3	60.0	29.5	14.4	1.3	13.2	187.9
	% Share	36.9	31.9	15.7	7.7	0.7	7.0	100.0
	Per Capita Consumption(Toe)	1.18	1.02	0.50	0.24	0.02	0.22	3.19
8	**Poland**	23.8	14.7	52.9	0.0	0.5	3.9	95.7
	% Share	24.9	15.3	55.3	0.0	0.5	4.1	100.0
	Per Capita Consumption (Toe)	0.62	0.38	1.38	0.00	0.01	0.10	2.50
9	**Malaysia**	35.2	36.9	15.9	0.0	2.7	0.3	91.0
	% Share	38.7	40.6	17.5	0.0	2.9	0.3	100.0
	Per Capita Consumption(Toe)	1.50	1.58	0.68	0.00	0.11	0.01	3.89
10	**Brazil**	142.5	35.7	15.3	3.5	83.6	15.4	296.0
	% Share	48.2	12.1	5.2	1.2	28.2	5.2	100.0
	Per Capita Consumption (Toe)	0.82	0.20	0.09	0.02	0.48	0.09	1.70

Source: BP Statistical Review of World Energy, June 2015
Note: For calculation of per capita consumption population figures have been taken from World Bank International Data Base for 2013
Mtoe: Million tonnes oil equivalent, Toe: Tonne oil equivalent

Analysis • Knowledge • Information

Chapter-2

Exploration & Crude Production

Offshore Rig - ONGC

Table 2.1 : Crude Oil Proved Reserves

Sl.No.	Country	At the end 2014		
		Thousand million tonnes	Thousand million barrels	Reserves /Production Ratio
1	Venezuela	46.6	298.3	*
2	Saudi Arabia	36.7	267.0	63.6
3	Canada	27.9	172.9	*
4	Iran	21.7	157.8	*
5	Iraq	20.2	150.0	*
6	Russian Federation	14.1	103.2	26.1
7	Kuwait	14.0	101.5	89.0
8	United Arab Emirates	13.0	97.8	72.2
9	Libya	6.3	48.4	*
10	US	5.9	48.5	11.4
11	Nigeria	5.0	37.1	43.0
12	Kazakhstan	3.9	30.0	48.3
13	Qatar	2.7	25.7	35.5
14	China	2.5	18.5	11.9
15	Brazil	2.3	16.2	18.9
16	Angola	1.7	12.7	20.3
17	Algeria	1.5	12.2	21.9
18	Mexico	1.5	11.1	10.9
19	Ecuador	1.2	8.0	39.4
20	Azerbaijan	1.0	7.0	22.6
21	Norway	0.8	6.5	9.5
22	**India**	**0.8**	**5.7**	**17.6**
23	Oman	0.7	5.2	15.0
24	Vietnam	0.6	4.4	33.0
25	Indonesia	0.5	3.7	11.9
26	Malaysia	0.5	3.8	15.4
27	Egypt	0.5	3.6	13.8
28	South Sudan	0.5	3.5	60.3
29	Australia	0.4	4.0	24.3
30	United Kingdom	0.4	3.0	9.8
	Total	**235.4**	**1667.1**	
	Others	4.4	33.0	
	Total World	**239.8**	**1700.1**	**52.5**
	of which: OECD	37.3	248.6	30.3
	Non-OECD	202.6	1451.5	60.1
	OPEC	170.5	1216.5	91.1
	Non-OPEC £	50.0	341.7	24.5
	European Union	0.8	5.8	11.2
	Former Soviet Union	19.3	141.9	28.2
	Canadian oil sands: Total	27.2	167.1	
	of which: Under Active Development	4.1	25.2	
	Venezuela: Orinoco Belt	35.4	220.5	

Source: BP Statistical Review of World Energy, June 2015 which includes data from ICIS ATEC.

Note:

* More than 100 years.

£ Excludes Former Soviet Union

Total proved reserves of oil- Generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. The data series for proved oil reserves does not necessarily meet the definitions, guidelines and practices used for determining proved reserves at company level, for instance as published by the US Securities and Exchange Commission, nor does it necessarily represent BP's view of proved reserves by country.

Reserves-to-production (R/P) ratio- If the reserves remaining at the end of any year are divided by the production in that year, the result is the length of time that those remaining reserves would last if production were to continue at that rate.

Source of data- The estimates in this table have been compiled using a combination of primary official sources, third-party data from the OPEC Secretariat, World Oil, Oil & Gas Journal and an independent estimate of Russian reserves based on official data and Chinese reserves based on information in the public domain. Canadian oil sands 'under active development' are an official estimate. Venezuelan Orinoco Belt reserves are based on the OPEC Secretariat and government announcements. Reserves include gas condensate and natural gas liquids (NGLs) as well as crude oil. R/P ratios are calculated using thousand million barrels figures.

Table 2.2 : Crude Oil Production 2014

Sl.No.	Country	Production*	
		Million tonnes	Million barrels/day
1	US	519.94	11.64
2	Saudi Arabia	543.44	11.50
3	Russian Federation	534.07	10.84
4	Canada	209.80	4.29
5	China	211.43	4.25
6	United Arab Emirates	167.26	3.71
7	Iran	169.19	3.61
8	Iraq	160.28	3.29
9	Kuwait	150.85	3.12
10	Mexico	137.10	2.78
11	Venezuela	139.45	2.72
12	Nigeria	113.48	2.36
13	Brazil	122.11	2.35
14	Qatar	83.52	1.98
15	Norway	85.62	1.89
16	Angola	83.03	1.71
17	Kazakhstan	80.85	1.70
18	Algeria	65.96	1.53
19	Colombia	52.15	0.99
20	Oman	46.22	0.94
21	**India**	**41.93**	**0.89**
22	Indonesia	41.21	0.85
23	United Kingdom	39.70	0.85
24	Azerbaijan	42.04	0.85
25	Egypt	34.70	0.72
26	Malaysia	30.34	0.67
27	Argentina	29.52	0.63
28	Ecuador	29.82	0.56
29	Libya	23.33	0.50
30	Australia	19.41	0.45
	Sub Total	**4007.75**	**84.18**
	Others	212.81	4.49
	Total World	**4220.56**	**88.67**
	of which: OECD	1039.66	22.49
	Non-OECD	3180.90	66.18
	OPEC	1729.61	36.59
	Non-OPEC £	1814.00	38.28
	European Union	67.04	1.41
	Former Soviet Union	676.95	13.80

Source: BP Statistical Review of World Energy, June 2015 which includes data from ICIS ATEC.

£ Excludes Former Soviet Union.

Notes:

* Includes crude oil, shale oil, oil sands and NGLs (natural gas liquids-the liquid content of natural gas where this is recovered separately). Excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas.

Table 2.3 : Crude Oil Consumption*

Sl. No.	Country	Million tonnes	Million barrels daily
1	US	836.1	19.0
2	China	520.3	11.1
3	Japan	196.8	4.3
4	**India**	**180.7**	**3.8**
5	Russian Federation	148.1	3.2
6	Brazil	142.5	3.2
7	Saudi Arabia	142.0	3.2
8	Germany	111.5	2.4
9	South Korea	108.0	2.5
10	Canada	103.0	2.4
11	Iran	93.2	2.0
12	Mexico	85.2	1.9
13	France	76.9	1.6
14	Indonesia	73.9	1.6
15	United Kingdom	69.3	1.5
16	Singapore	66.2	1.3
17	Spain	59.5	1.2
18	Italy	56.6	1.2
19	Thailand	53.0	1.3
20	Australia	45.5	1.0
21	Taiwan	43.9	1.0
22	Netherlands	39.6	0.9
23	United Arab Emirates	39.3	0.9
24	Egypt	38.7	0.8
25	Venezuela	38.5	0.8
26	Malaysia	35.2	0.8
27	Turkey	33.8	0.7
28	Argentina	30.9	0.7
29	Belgium	30.0	0.6
30	South Africa	29.1	0.6
	Total	**3527.6**	**77.5**
	Others	683.5	14.6
	Total World	**4211.1**	**92.1**
	of which: OECD	2032.3	45.1
	Non-OECD	2178.9	47.0
	European Union	592.5	12.5
	Former Soviet Union	207.0	4.4

Source: BP Statistical Review of World Energy, June 2015 which includes data from ICIS ATEC.
Note: Differences between these world consumption figures and world production statistics are accounted for by stock changes, consumption of non-petroleum additives and substitute fuels, and unavoidable disparities in the definition, measurement or conversion of oil supply and demand data.
* Inland demand plus international aviation and marine bunkers and refinery fuel and loss. Consumption of biogasoline (such as ethanol), biodiesel and derivatives of coal and natural gas are also included.

Table 2.4 : Crude Oil: Refinery Capacities*

(Million barrels daily)

Sl.No.	Country	2004	2014	Addition	% Change
1	US	17.12	17.79	0.67	0.04
2	China	6.60	14.10	7.49	1.14
3	Russian Federation	5.33	6.34	1.01	0.19
4	**India**	**2.56**	**4.32**	**1.76**	**0.69**
5	Japan	4.53	3.75	-0.78	-0.17
6	South Korea	2.60	2.89	0.29	0.11
7	Saudi Arabia	2.08	2.82	0.74	0.36
8	Brazil	1.93	2.23	0.31	0.16
9	Germany	2.32	2.06	-0.26	-0.11
10	Iran	1.64	1.99	0.34	0.21
11	Italy	2.50	1.98	-0.51	-0.21
12	Canada	1.92	1.97	0.05	0.03
13	Spain	1.37	1.55	0.17	0.13
14	Mexico	1.46	1.52	0.06	0.04
15	Singapore	1.41	1.51	0.11	0.08
16	France	1.98	1.37	-0.61	-0.31
17	United Kingdom	1.85	1.37	-0.48	-0.26
18	Venezuela	1.28	1.30	0.02	0.01
19	Netherlands	1.28	1.27	-0.01	-0.01
20	Thailand	1.07	1.24	0.17	0.16
21	Taiwan	1.16	1.20	0.04	0.03
22	United Arab Emirates	0.62	1.14	0.52	0.84
23	Indonesia	1.06	1.10	0.04	0.04
24	Iraq	0.72	1.09	0.38	0.52
25	Kuwait	0.94	0.94	0.00	0.00
26	Belgium	0.75	0.78	0.03	0.03
27	Argentina	0.62	0.62	0.01	0.01
28	Turkey	0.69	0.61	-0.08	-0.12
29	Australia	0.76	0.54	-0.23	-0.30
30	Greece	0.41	0.50	0.09	0.21
	Total	**70.55**	**81.89**	**11.33**	**0.16**
	Others	14.55	14.63	0.08	0.01
	Total World	**85.10**	**96.51**	**11.41**	**0.13**
	of which: OECD	45.05	43.58	-1.47	-0.03
	Non-OECD	40.05	52.93	12.88	0.32
	European Union	15.92	14.22	-1.70	-0.11
	Former Soviet Union	7.69	8.42	0.73	0.10

Source: BP Statistical Review of World Energy, June 2015 which includes data from ICIS ATEC.
Note: Decadal changes are calculated using million barrels daily figures.
* Atmospheric distillation capacity on a calendar-day basis.

Table 2.5 : Indigenous Crude Oil Production

(Million metric tonne)

	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
PSU Companies						
ONGC	20.8	19.5	19.2	18.6	9.4	9.3
OIL	3.8	3.7	3.5	3.4	1.7	1.6
PSU Total	**24.7**	**23.2**	**22.7**	**22.1**	**11.1**	**11.0**
PSU Total (Crore Barrels)	**18.1**	**17.0**	**16.6**	**16.2**	**8.1**	**8.1**
Under PSC Contracts						
PSC Total	**10.4**	**11.6**	**12.0**	**11.7**	**5.8**	**5.8**
PSC Total (Crore Barrels)	**7.6**	**8.5**	**8.8**	**8.6**	**4.3**	**4.2**
Total Crude Oil	**35.1**	**34.7**	**34.7**	**33.8**	**16.9**	**16.8**
Condensate	3.0	3.2	3.1	3.7	1.7	1.9
Total (Crude Oil + Condensate)	**38.1**	**37.9**	**37.8**	**37.5**	**18.6**	**18.7**
Total (Crude Oil + Condensate) (Crore Barrels)	**27.9**	**27.8**	**27.7**	**27.5**	**13.6**	**13.7**

Source: Oil Companies and DGH

Table 2.6 : Self Sufficiency in Petroleum Products

(Million metric tonne)

	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
i) Indigenous Crude Oil Processing	**33.7**	**34.2**	**33.9**	**34.2**	**17.0**	**17.2**
a) Products from Indigenous Crude	31.5	31.9	31.6	32.0	15.9	16.1
b) Products from Fractionators (including LPG and Gas)	4.2	4.1	3.9	3.7	1.8	1.7
ii) Total production from Indigenous Crude, Condensate & Gas (a+b)	**35.7**	**36.0**	**35.5**	**35.6**	**17.7**	**17.7**
iii) Total domestic consumption	**148.1**	**157.1**	**158.4**	**165.5**	**81.2**	**88.2**
% Self Sufficiency (ii/iii)	**24.1**	**22.9**	**22.4**	**21.5**	**21.8**	**20.1**

Source: Oil Companies

Note:

1. Production of petroleum products from indigenous crude considered at 93.3% of indigenous crude oil processing.
2. The balance demand of petroleum products is met through import of crude oil and POL products.

Table 2.7 : NELP Blocks Awarded in India upto IXth Round

Parameter	I	II	III	IV	V	VI	VII	VIII	IX
No. of blocks offered	48	25	27	24	20	55	57	70	34
No. of blocks bid for	28	23	24	21	20	52	45	36	33
No. of bids received	45	44	52	44	69	165	181	76	74
No. of blocks awarded	25	23	23	21	20	52	44	34	19
No. of PSC signed	24	23	23	20	20	52	41	32	19
Area awarded (Sq.Km)	2,31,527	2,67,883	2,04,608	1,92,810	1,15,180	3,06,389	1,12,985	52,573	26,428

Source: Annual Report of Directorate General of Hydrocarbons (DGH) 2014-15

Note:

1. a) Upto IXth Round, 254 PSCs for exploration blocks have been signed
   b) In IXth Round, bids for 33 exploration blocks are under evaluation and 19 PSCs have been signed till 31st March, 2015.
2. Actual investment till 2014-15 : US$ 25.06 billion (US$ 15.40 billion on exploration and US$9.66 billion on development)

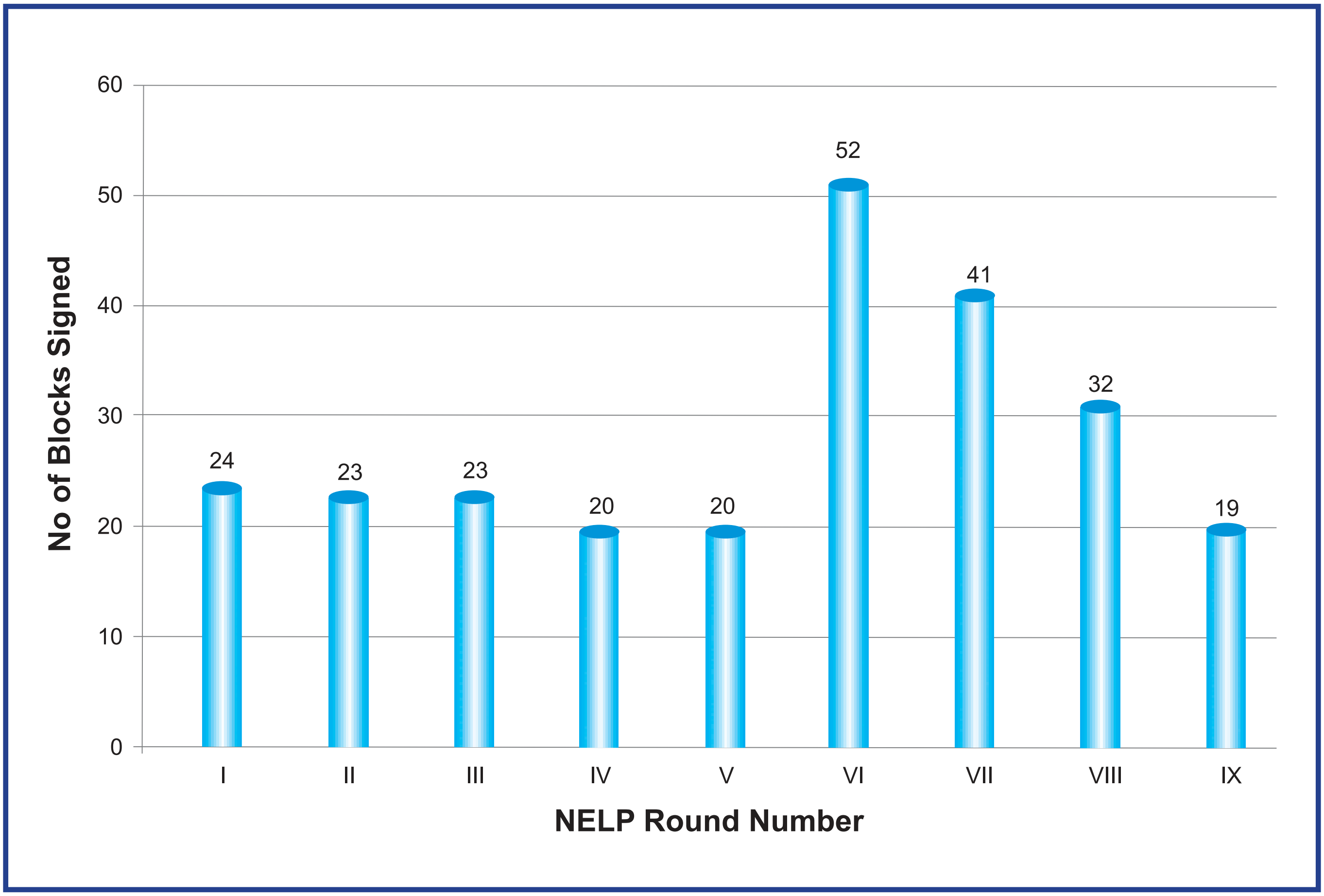


Table 2.8 : Hydrocarbon Reserves in India

(Million metric tonne)

Details of reserves in India as of 01.04.2015	Initial in place			Ultimate reserves		
	Oil	Gas	O+OEG	Oil	Gas	O+OEG
ONGC	5229	2415	7644	1493	1297	2790
OIL	799	357	1155	83	44	127
Pvt./JV	975	1460	2436	215	767	983
Total	**7003**	**4232**	**11235**	**1792**	**2109**	**3900**
	Accretion of initial in place			**Accretion ultimate reserves**		
ONGC	44	91	135	31	27	58
OIL	-3	13	10	1	8	9
Pvt./JV	3	142	145	1	52	53
Total	**44**	**246**	**290**	**33**	**87**	**119**

Source: Annual report of DGH 2014-15
Note: O+OEG: Oil & Oil Equivalent of Gas

Table 2.9 : Domestic Oil & Gas Production vis a vis Overseas Production

Year	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
Total domestic production (MMTOE)	66.5	66.4	81.0	89.9	85.7	78.5	73.2	71.2	35.4	35.2
Overseas production of OVL (MMTOE)	8.8	8.8	8.9	9.5	8.8	7.3	8.4	8.9	4.3	4.5
Overseas production as % of domestic production	13.2%	13.2%	11.0%	10.5%	10.3%	9.3%	11.4%	12.5%	12.1%	12.7%

Source: Ministry of Petroleum and Natural Gas & ONGC Videsh Ltd.

Table 2.10 : Coal Bed Methane (CBM) Gas Development in India

Prognosticated CBM Resources	92	TCF
Established CBM Resources	9.9	TCF
Total Available Coal Bearing Area	26000	Sq.KM
Exploration Initiated	17200	Sq.KM
Blocks Awarded*	33	Nos.
Commercial Production of CBM Gas	0.77	MMSCMD

Note: *CBM blocks have been awarded in the states of Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu and West Bengal.

Source: Annual report of DGH 2014-15

Table 2.11 : Status of Shale Gas and Oil Development in India

a) Shale Gas spread in the sedimentary basins	Cambay basin, Krishna-Godavari basin, Cauvery basin, Arakan/Assam and Rajasthan.
b) *Re-Assessment of Prognosticated Hydrocarbon Resources:* Government of India has rolled out an elaborate plan to reassess hydrocarbon resources in Indian sedimentary basins. A Multi Organizational Team (MOT) has been constituted to implement the project. The report is likely to be completed by March 2016.	The exercise will cover assessment of all the 26 sedimentary basins of India. It will generate better understanding of Indian sedimentary basins with integration of data and new interpretation techniques.
c) *Policy Guidelines for Exploration and Exploitation of Shale Gas and Oil:* Shale Gas and Oil Policy was announced on 14th October 2013. Under this policy the right to exploration and exploitation of Shale Gas & Oil has been granted to the National Oil Companies (NOCs) holding Petroleum Exploration License (PEL) / Petroleum Mining Lease (PML) granted under the nomination regime.	NOCs have identified 55 blocks for Assessment Studies during Phase-I of three years. Currently 12 wells have been drilled and 27 cores have been collected by ONGC. Further NOCs will identify 80 blocks under Phase-II of three years and 55 blocks in Phase-III. OIL is currently carrying out Geological and Geophysical (G&G) studies and data collection.

Source: Annual Report of DGH 2014-15

Table 2.12 : Status of Underground Coal Gasification (UCG) Development in India

a) Agreement of Collaboration (AOC) signed on 25.11.2004 between ONGC and Skochinsky Institute of Mining, Russia	For implementation of Underground Coal Gasification (UCG) project in India
b) Pilot Project selected- Vastan Mining Block -mining lease awaited	a) Vastan Mine block belonging to GIPCL in Surat district, Gujarat has been selected for UCG Pilot project. The site has been taken up by ONGC as an R&D project to establish UCG technology. b) The issue of Mining Lease for the block is awaited. The pilot construction and erection of surface facilities shall be taken up only after the allocation of the Vastan Mine block.
c) Status of other UCG sites	In parallel action, other sites have been taken up for studying their suitability for UCG. ONGC and Neyveli Lignite Corporation Limited (NLC) have jointly identified Tadkeshwar in Gujarat and Hodu-Sindhari & East Kurla in Rajasthan. One more site was also jointly identified by ONGC and Gujarat Mineral Development Corporation Limited, Gujarat (GMDC) viz. Surkha in Bhavnagar Distt., Gujarat. The data of all fields have already been analyzed for evaluating the suitability of these sites for UCG and all the sites have been found suitable for UCG. These projects will be taken up on the basis of learning curve from Vastan project.

Source: Annual Report of DGH 2013-14

Chapter-3

Natural Gas

Hazira Plant - ONGC

Table 3.1 : World Top 30 Natural Gas Reserve Countries

(Trillion cubic metre)

SL. No.	Country	2013	2014
1	Iran	34.0	34.0
2	Russian Federation	32.3	32.6
3	Qatar	24.7	24.5
4	Turkmenistan	17.5	17.5
5	US	9.6	9.8
6	Saudi Arabia	8.2	8.2
7	United Arab Emirates	6.1	6.1
8	Venezuela	5.6	5.6
9	Nigeria	5.1	5.1
10	Algeria	4.5	4.5
11	Australia	3.7	3.7
12	Iraq	3.6	3.6
13	China	3.5	3.5
14	Indonesia	2.9	2.9
15	Canada	2.0	2.0
16	Norway	2.0	1.9
17	Egypt	1.8	1.8
18	Kuwait	1.8	1.8
19	Kazakhstan	1.5	1.5
20	Libya	1.5	1.5
21	**India**	**1.4**	**1.4**
22	Azerbaijan	0.9	1.2
23	Uzbekistan	1.1	1.1
24	Malaysia	1.1	1.1
25	Netherlands	0.8	0.8
26	Oman	0.7	0.7
27	Ukraine	0.6	0.6
28	Vietnam	0.6	0.6
29	Pakistan	0.6	0.6
30	Brazil	0.5	0.5
	Total	**180.0**	**180.7**
	Others	6.5	6.4
	Total World	**186.5**	**187.1**
	of which: OECD	19.4	19.5
	Non-OECD	167.0	167.6
	European Union	1.5	1.5
	Former Soviet Union	53.9	54.6

Source: BP Statistical Review of World Energy, June 2015

Table 3.2 : World Top 30 Natural Gas Producing Countries

(Trillion cubic metre)

SL. No.	Country	2013	2014
1	US	0.69	0.73
2	Russian Federation	0.60	0.58
3	Qatar	0.18	0.18
4	Iran	0.16	0.17
5	Canada	0.16	0.16
6	China	0.12	0.13
7	Norway	0.11	0.11
8	Saudi Arabia	0.10	0.11
9	Algeria	0.08	0.08
10	Indonesia	0.07	0.07
11	Turkmenistan	0.06	0.07
12	Malaysia	0.07	0.07
13	Mexico	0.06	0.06
14	United Arab Emirates	0.05	0.06
15	Uzbekistan	0.06	0.06
16	Netherlands	0.07	0.06
17	Australia	0.05	0.06
18	Egypt	0.06	0.05
19	Thailand	0.04	0.04
20	Trinidad & Tobago	0.04	0.04
21	Pakistan	0.04	0.04
22	Nigeria	0.04	0.04
23	United Kingdom	0.04	0.04
24	Argentina	0.04	0.04
25	**India**	**0.03**	**0.03**
26	Oman	0.03	0.03
27	Venezuela	0.03	0.03
28	Bangladesh	0.02	0.02
29	Bolivia	0.02	0.02
30	Ukraine	0.02	0.02
	Total	**3.15**	**3.19**
	Others	0.26	0.28
	Total World	**3.41**	**3.46**
	of which: OECD	1.21	1.25
	Non-OECD	2.19	2.21
	European Union	0.15	0.13
	Former Soviet Union	0.78	0.76

Source: BP Statistical Review of World Energy, June 2015

Table 3.3 : World Top 30 Natural Gas Consuming Countries

(Trillion cubic metre)

Sl. No.	Country	2013	2014
1	US	0.740	0.759
2	Russian Federation	0.413	0.409
3	China	0.171	0.185
4	Iran	0.159	0.170
5	Japan	0.114	0.112
6	Saudi Arabia	0.100	0.108
7	Canada	0.104	0.104
8	Mexico	0.085	0.086
9	Germany	0.082	0.071
10	United Arab Emirates	0.067	0.069
11	United Kingdom	0.073	0.067
12	Italy	0.064	0.057
13	Thailand	0.052	0.053
14	**India**	**0.051**	**0.051**
15	Uzbekistan	0.047	0.049
16	Turkey	0.046	0.049
17	Egypt	0.051	0.048
18	South Korea	0.053	0.048
19	Argentina	0.048	0.047
20	Qatar	0.041	0.045
21	Pakistan	0.043	0.042
22	Malaysia	0.040	0.041
23	Brazil	0.037	0.040
24	Ukraine	0.046	0.038
25	Indonesia	0.036	0.038
26	Algeria	0.033	0.037
27	France	0.043	0.036
28	Netherlands	0.037	0.032
29	Venezuela	0.031	0.030
30	Australia	0.029	0.029
	Total	**2.937**	**2.951**
	Others	0.444	0.442
	Total World	**3.381**	**3.393**
	of which: OECD	1.610	1.579
	Non-OECD	1.771	1.814
	European Union	0.438	0.387
	Former Soviet Union	0.571	0.568

Source: BP Statistical Review of World Energy, June 2015

Table 3.4 : Natural Gas at a Glance

(MMSCMD)

	2012-2013	2013-2014	2014-2015	Apr-Sep 2014	Apr- Sep 2015 (P)
Gross Production	111.46	96.96	92.23	91.86	89.90
Net Production (Excluding Flare Gas)	108.94	94.67	89.57	89.40	86.60
*LNG Import	39.24	38.74	50.36	25.74	27.80
Total Consumption (Net Production+Import)	148.18	133.41	139.94	115.14	114.40
Total Consumption (in BCM)	54.09	48.69	51.08	21.07	20.94
Total Consumption (in MMSCM)	54085.70	48694.65	51078.10	21070.62	20935.20

Source: ONGC / OIL/ DGH / PLL/ HLPL/ GSPCL / GAIL
Notes :
*LNG imports includes both term & spot cargo
*RIL LNG import data is not included for 2012-13 and 2013-14
LNG imports data in Million Metric Ton (MMT), converted to MMSCMD
1 MMT = 3.6 MMSCMD
1 BCM = 2.74 MMSCMD
MMSCMD : Million Standard Cubic Meter Per Day
MMT= Million Metric Ton

Table 3.5 : PNG Data as on 30.09.2015

(In Nos.)

State	Geographical Area Covered	CGD Companies	Domestic Connections	Commercial Connections	Industrial Connections
Haryana	Sonepat, Gurgaon, Faridabad	GAIL Gas Ltd, Adani Gas Ltd., Haryana City Gas Distribution Ltd.	25894	100	204
Andhra Pradesh/ Telangana	Kakinada, Hyderabad, Vijayawada	Bhagyanagar Gas Ltd. (BGL)	3748	46	3
Assam	Tinsukia, Dibrugarh, Sibasagar, Jorhat, Golaghat	Assam Gas Co. Ltd.	28979	1028	392
Gujarat	Ahmedabad, Baroda, Surat, Ankeleswar	Sabarmati Gas Ltd., Gujarat Gas Ltd. (Merger of GSPC and GGCL), Hindustan Petroelum Corporation Ltd., Vadodara Gas Ltd, Adani Gas Ltd., Charotar Gas Sahakari Mandli Ltd.	1430566	15808	3913
Madhya Pradesh	Dewas, Indore, Ujjain, Gwalior	GAIL Gas Ltd, Aavantika Gas Ltd.	4685	31	74
Maharashtra	Mumbai, Thane, Mira-Bhayender, Navi Mumbai, Pune, Kalyan, Ambernath, Panvel, Bhiwandi	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd.	854950	2761	160
Delhi / NCR	National Capital Territory of Delhi (Including Noida and Ghaziabad)	Indraprastha Gas Ltd.	601192	1652	776
Rajasthan	Kota	GAIL Gas Ltd.	189	1	9
Tripura	Agartala	Tripura Natural Gas Company Ltd.	19747	300	47
Uttar Pradesh	Agra, Kanpur, Bareilly, Lucknow, Meerut, Mathura, Moradabad, Khurja, Firozabad	Green Gas Ltd. (Lucknow), Central UP Gas Limited (Kanpur), Sanwaria Gas Ltd., GAIL Gas Ltd, Adani Gas Ltd., Siti Enegy Ltd.	28784	198	466
Total			2998734	21925	6044

Source : CGD Companies

Table 3.6 : CNG Activities in India as on 30.09.2015

CNG Sales

(Sales in TMT)

State	Company Name	No. of Companies	2013-14	2014-15	Apr-Sep 2014	Apr- Sep 2015 (P)
Gujarat	Adani Energy Ltd., Gujarat Gas Ltd. (An amalgamated entity of Gujarat State Petroleum Corporation Gas Company Ltd. & Gujarat Gas Company Ltd.), Sabarmati Gas Ltd. (SGL), Hindustan Petroleum Corporation Ltd. (HPCL), Vadodara Gas Limited (JV of GAIL Gas Ltd & Vadodara Mahanagar Seva Sadan)	5	463.50	475.90	235.40	250.60
Delhi	Indraprastha Gas Ltd. (IGL) New Delhi	1	697.60	717.10	358.10	367.40
Rajasthan (Kota)	GAIL Gas Ltd.	1	1.60	2.60	1.10	1.80
Maharashtra	Mahanagar Gas Ltd.(MGL) Mumbai, Maharashtra Natural Gas Ltd.,(MNGL), Pune, GAIL Gas Ltd.	3	476.00	531.40	262.40	280.60
Andhra Pradesh/ Telangana	Bhagyanagar Gas Ltd.(BGL) Hyderabad.	1	24.60	25.80	12.90	13.40
Uttar Pradesh	Green Gas Ltd. (Lucknow), Central UP Gas Ltd.,Kanpur, Siti Energy Ltd., GAIL Gas Ltd., Sanwaria Gas Ltd.	5	162.60	184.80	91.00	103.20
Tripura	Tripura Natural Gas Co. Ltd.(TNGCL) Agartala.	1	6.80	9.50	4.60	5.40
Madhya Pradesh	Avantika Gas Ltd. (Indore) and GAIL Gas Ltd.	2	15.90	16.60	8.50	9.80
Haryana	Haryana City Gas Ltd., GAIL Gas Ltd., Adani Gas Ltd.	3	78.20	72.30	38.50	36.90
West Bengal	Great Eastern Energy Corporation Ltd.	1	1.15	1.24	0.60	0.70
Total		**18***	**1927.95**	**2037.24**	**1013.10**	**1069.80**

Source: CGD Companies

*GAIL Gas Ltd. is operating in five States, Adani Gas Energy and Bhagyanagar Gas Ltd is operating in two States. Hence, their number is taken once only.

Table 3.7 : CNG Stations & Vehicles as on 30.09.2015

State	Company Name	No. of CNG Stations	No. of CNG Vehicles
Gujarat	Adani Energy Ltd., Gujarat Gas Ltd., (An amalgamated entity of GSPC + GGCL), Sabarmati Gas Ltd., Hindustan Petroleum Corporation Ltd., Vadodara Gas Limited (JV of GAIL/ Gas Ltd+ VMSS)	361	811880
Delhi / NCR	Indraprastha Gas (IGL) New Delhi	324	804289
Maharashtra	Mahanagar Gas Ltd.(MGL) Mumbai, Maharashtra Natural Gas Ltd.,(MNGL) Pune, GAIL Gas Ltd.	212	530961
Andhra Pradesh / Telangana	Bhagyanagar Gas Ltd.(BGL) Hyderabad.	32	32774
Rajasthan	Gail Gas Ltd.	3	4010
Uttar Pradesh	Green Gas Ltd. (Lucknow), Central UP Gas Ltd.(Kanpur), Siti Energy Ltd., Adani Energy Ltd., GAIL Gas Ltd., Sanwaria Gas Ltd.	41	97545
Tripura	Tripura Natural Gas Co. Ltd.,Agartala.	5	7560
Madhya Pradesh	Avantika Gas Ltd. (Indore), GAIL Gas Ltd.	21	20508
Haryana	Haryana City Gas Ltd, GAIL Gas Ltd., Adani Gas Ltd.	20	122209
West Bengal	Great Eastern Energy Corporation Ltd.	7	2275
All India		**1026**	**2434011**

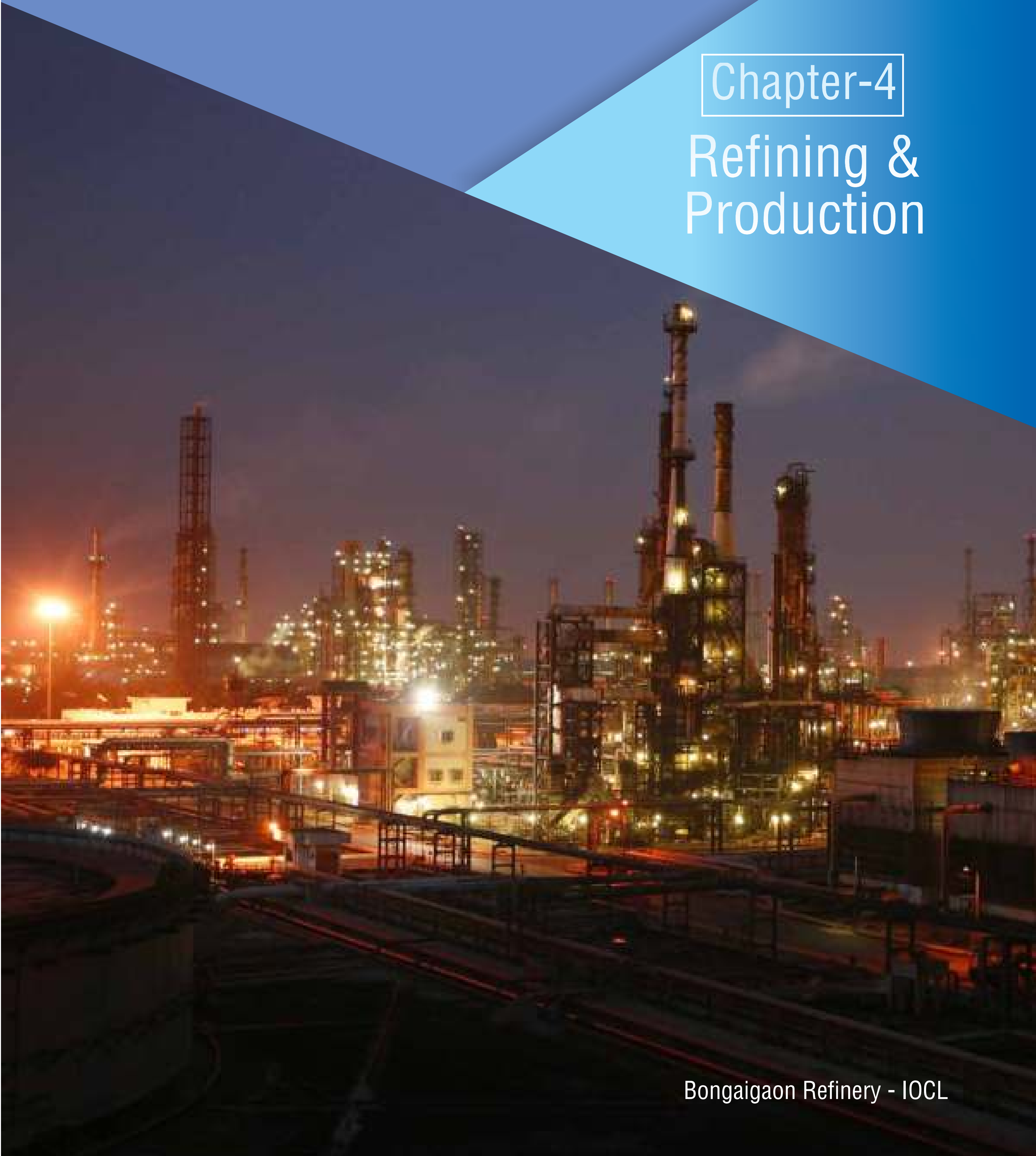
Source: CGD Companies

*Vehicle figures of IGL -Noida, Greater Noida and Ghaziabad is not available.

*After merger of GSPC & GGCL in May 2015 the average no. of CNG Vehicles in GGL is based on average no. of vehicles filled at Companies CNG Station per day.

Chapter-4

Refining & Production



Bongaigaon Refinery - IOCL

Map of Refineries in India

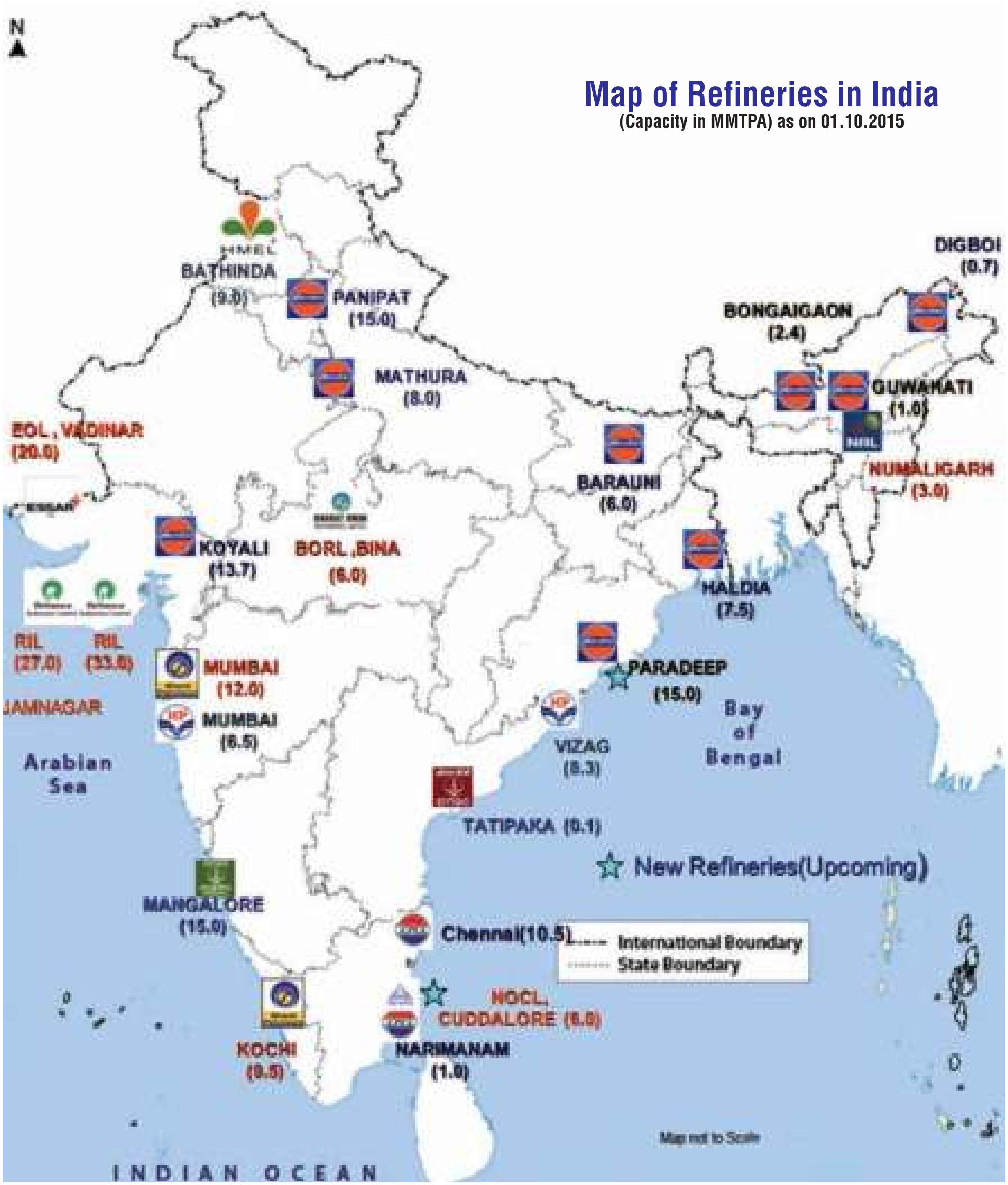


Table 4.1 : Refineries: Installed Capacity and Crude Oil Processing

(MMTPA/MMT)

Sl. No.	Refinery	Installed capacity					Crude oil processing					
		01.04.2011	01.04.2012	01.04.2013	01.04.2014	01.04.2015	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
1	Barauni	6.0	6.0	6.0	6.0	6.0	5.7	6.3	6.5	5.9	3.1	3.2
2	Koyali	13.7	13.7	13.7	13.7	13.7	14.3	13.2	13.0	13.3	6.6	6.5
3	Haldia	7.5	7.5	7.5	7.5	7.5	8.1	7.5	8.0	7.7	3.8	3.8
4	Mathura	8.0	8.0	8.0	8.0	8.0	8.2	8.6	6.6	8.5	4.2	4.3
5	Panipat	15.0	15.0	15.0	15.0	15.0	15.5	15.1	15.1	14.2	6.5	7.4
6	Guwahati	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	0.5	0.5
7	Digboi	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.3	0.3
8	Bongaigaon	2.4	2.4	2.4	2.4	2.4	2.2	2.4	2.3	2.4	1.1	1.3
	IOCL Total	**54.2**	**54.2**	**54.2**	**54.2**	**54.2**	**55.6**	**54.6**	**53.1**	**53.6**	**26.3**	**27.3**
9	Mumbai	6.5	6.5	6.5	6.5	6.5	7.5	7.7	7.7	7.4	3.4	3.7
10	Visakh	8.3	8.3	8.3	8.3	8.3	8.7	8.0	7.8	8.8	4.3	4.3
11	HMEL-GGSR		9.0	9.0	9.0	9.0	-	4.9	9.3	7.3	2.5	5.5
	HPCL-Total	**14.8**	**23.8**	**23.8**	**23.8**	**23.8**	**16.2**	**20.7**	**24.8**	**23.5**	**10.3**	**13.5**
12	Mumbai	12.0	12.0	12.0	12.0	12.0	13.0	12.7	12.7	12.8	6.2	6.5
13	Kochi	9.5	9.5	9.5	9.5	9.5	9.5	10.1	10.3	10.4	5.3	5.5
14	Bina	6.0	6.0	6.0	6.0	6.0	2.0	5.7	5.4	6.2	2.8	3.0
	BPCL-Total	**27.5**	**27.5**	**27.5**	**27.5**	**27.5**	**24.5**	**28.6**	**28.4**	**29.4**	**14.3**	**15.1**
15	Manali	10.5	10.5	10.5	10.5	10.5	10.0	9.1	10.1	10.2	5.1	4.6
16	CBR	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.5	0.3	0.3
	CPCL-Total	**11.5**	**11.5**	**11.5**	**11.5**	**11.5**	**10.6**	**9.7**	**10.6**	**10.8**	**5.4**	**4.9**
17	Numaligarh	3.0	3.0	3.0	3.0	3.0	2.8	2.5	2.6	2.8	1.5	1.2
18	Tatipaka	0.1	0.1	0.1	0.1	0.1	0.1	0.06	0.07	0.1	0.03	0.03
19	MRPL-Mangalore	11.8	15.0	15.0	15.0	15.0	12.8	14.4	14.6	14.6	6.7	7.3
	ONGC Total	**11.9**	**15.1**	**15.1**	**15.1**	**15.1**	**12.9**	**14.5**	**14.7**	**14.7**	**6.7**	**7.4**
20	RIL-Jamnagar (DTA)	33.0	33.0	33.0	33.0	33.0	32.5	32.6	30.3	30.9	15.3	15.8
21	RIL-Jamnagar (SEZ)	27.0	27.0	27.0	27.0	27.0	35.2	35.9	37.7	37.2	18.8	17.9
22	EOL-Vadinar	10.5	18.0	20.0	20.0	20.0	13.5	19.8	20.2	20.5	10.2	9.6
	All India	**193.4**	**213.1**	**215.1**	**215.1**	**215.1**	**203.8**	**218.8**	**222.5**	**223.3**	**108.7**	**112.6**

Table 4.2 : High Sulphur (HS) & Low Sulphur (LS) Crude Oil Processing

(Million metric tonne)

Sl. No.	Type of Crude	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
1	HS Crude	139.0	153.0	160.2	161.4	77.7	80.8
2	LS Crude	64.8	65.8	62.2	61.9	30.9	31.8
	Total Crude	203.8	218.8	222.5	223.3	108.7	112.6
	Share of HS Crude in Total Crude Processing	68.2%	69.9%	72.0%	72.3%	71.5%	71.8%

Table 4.3 : Imported Crude & Indigenous Crude Oil Processing

(Million metric tonne)

Sl. No.	Imported / Indigenous Crude	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
1	Imported Crude	170.0	184.7	188.6	189.0	91.6	95.4
2	Indigenous Crude	33.7	34.2	33.9	34.2	17.0	17.2
	Total Crude	203.8	218.8	222.5	223.3	108.7	112.6
	Share of Imported Crude in Total Crude Processing	83.4%	84.4%	84.8%	84.7%	84.3%	84.7%

Source: Oil Companies

Table 4.4 : Production of Petroleum Products

(Million metric tonne)

	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
A) From Crude oil / Refineries						
Light Ends of which:	**59.0**	**63.0**	**62.6**	**64.6**	**31.6**	**33.4**
LPG	7.3	7.7	7.9	7.7	3.4	4.0
MS	27.2	30.1	30.3	32.2	15.7	16.8
Naphtha	17.0	17.2	17.0	16.2	8.2	8.1
Others	7.4	8.0	7.4	8.5	4.2	4.5
Middle Distillates of which:	**105.2**	**112.5**	**117.3**	**117.5**	**56.2**	**59.3**
SKO	7.9	8.0	7.4	7.6	3.8	3.7
ATF	10.0	10.1	11.2	11.1	5.0	5.4
HSD	82.9	91.1	93.8	94.3	46.1	47.8
LDO	0.5	0.4	0.4	0.4	0.2	0.2
Others	3.8	3.0	4.6	4.2	1.1	2.1
Heavy Ends of which:	**35.6**	**38.2**	**36.6**	**34.9**	**18.1**	**17.3**
Furnace Oil	17.7	14.5	13.0	11.5	5.9	5.3
LSHS	1.7	1.3	0.5	0.7	0.3	0.3
Lube Oil	1.0	0.9	0.9	0.9	0.4	0.5
Bitumen	4.6	4.7	4.8	4.7	2.3	2.2
Others	10.6	16.8	17.4	17.1	9.3	9.0
Total Production	**199.8**	**213.7**	**216.4**	**217.1**	**105.9**	**110.1**
B) From Natural Gas/ Fractionators						
Total Production out of which:	**4.2**	**4.1**	**3.9**	**3.7**	**1.8**	**1.7**
LPG	2.2	2.1	2.1	2.2	1.1	1.0
Naphtha	1.7	1.7	1.5	1.2	0.6	0.6
SKO	0.1	0.1	0.1	0.1	0.04	0.04
HSD	0.01	0.02	0.02	0.01	0.006	0.004
Others	0.2	0.2	0.2	0.2	0.1	0.1
Total indigenous production	**204.0**	**217.8**	**220.3**	**220.7**	**107.8**	**111.7**

Source: Oil Companies

Table 4.5 : Production of Petroleum Products : All Sources

(Million metric tonne)

Major Products	2011-12	2012-13	2013-14	2014-15	Apr-Sep 2014	Apr-Sep 2015 (P)
HSD	82.9	91.1	93.8	94.3	46.1	47.8
MS	27.2	30.1	30.3	32.2	15.7	16.8
Naphtha	18.7	18.9	18.5	17.5	8.8	8.6
FO	17.7	14.5	13.0	11.4	5.9	5.3
ATF	10.1	10.1	11.2	11.1	5.0	5.4
LPG	9.6	9.8	10.0	9.8	4.5	5.0
SKO	8.0	8.1	7.4	7.6	3.9	3.7
Bitumen	4.6	4.7	4.8	4.7	2.3	2.2
LSHS	1.7	1.3	0.5	0.7	0.3	0.3
Lubes	1.0	0.9	0.9	0.9	0.4	0.5
LDO	0.5	0.4	0.4	0.4	0.2	0.2
Others#	22.0	28.0	29.5	30.2	14.7	15.8
Total	**204.0**	**217.8**	**220.3**	**220.7**	**107.8**	**111.7**

Source: Oil Companies
Others include products like Propylene, Solvents (Hexane, Benzene, Toluene, Xylene and Special solvents), Reformate, Mineral Turpentine Oil, Carbon Black Feed Stock, Raw and Calcined Petroleum Coke, Waxes, Sulphur, etc.

Table 4.6 : Production vs Consumption of Petroleum Products

(Million metric tonne)

Year	Consumption $	Production from refineries & other sources*	Surplus (+) / Deficit (-)
	(A)	(B)	(B)-(A)
1997-98	84.3	64.7	-19.6
1998-99	90.6	68.4	-22.1
1999-00	97.1	82.9	-14.2
2000-01	100.1	99.6	-0.5
2001-02	100.4	104.3	3.9
2002-03	104.1	108.7	4.5
2003-04	107.8	117.6	9.9
2004-05	111.6	122.7	11.1
2005-06	113.2	124.1	10.9
2006-07	120.7	140.1	19.3
2007-08	128.9	149.9	20.9
2008-09	133.6	157.4	23.8
2009-10	137.8	185.0	47.2
2010-11	141.0	195.8	54.8
2011-12	148.1	204.0	55.9
2012-13	157.1	217.8	60.7
2013-14	158.4	220.3	61.9
2014-15	165.5	220.7	55.2
2014-15 (Apr-Sep)	81.2	107.8	26.6
2015-16 (Apr-Sep)(P)	88.1	111.7	23.6

Note:
$ includes direct imports by private parties
*Fractionators and gas processing plants

Table 4.7 : Fuel & Loss

Sl.No.	Company	Refinery	2012-13			2013-14			2014-15			April-September 2014			April-September 2015 (P)		
			Through put (Million tonne)	Fuel & Loss		Through put (Million tonne)	Fuel & Loss		Through put (Million tonne)	Fuel & Loss		Through put (Million tonne)	Fuel & Loss		Through put (Million tonne)	Fuel & Loss	
				Qty (Million tonne)	%		Qty (Million tonne)	%		Qty (Million tonne)	%		Qty (Million tonne)	%		Qty (Million tonne)	%
1	IOCL	Barauni	6.3	0.6	9.2	6.5	0.6	9.0	5.9	0.5	9.2	3.1	0.3	9.1	3.2	0.3	8.7
2		Koyali	13.2	1.3	9.7	13.0	1.3	9.7	13.3	1.3	9.6	6.6	0.6	9.7	6.5	0.6	9.2
3		Haldia	7.5	0.7	9.4	8.0	0.7	9.2	7.7	0.7	8.7	3.8	0.3	8.7	3.8	0.3	8.7
4		Mathura	8.6	0.7	8.7	6.6	0.6	8.9	8.5	0.7	8.2	4.2	0.4	8.3	4.3	0.3	8.2
5		Panipat	15.1	1.6	10.5	15.1	1.5	10.0	14.2	1.4	10.2	6.5	0.7	10.3	7.4	0.7	9.8
6		Guwahati	1.0	0.1	12.2	1.0	0.1	11.6	1.0	0.1	12.1	0.5	0.1	12.4	0.5	0.1	12.2
7		Digboi	0.7	0.1	10.1	0.7	0.1	10.0	0.6	0.1	10.3	0.3	0.03	10.2	0.3	0.03	11.1
8		Bongaigaon	2.4	0.2	10.5	2.3	0.2	9.5	2.4	0.2	9.1	1.1	0.1	9.8	1.3	0.1	8.5
		IOCL Total	**54.6**	**5.3**	**9.7**	**53.1**	**5.1**	**9.6**	**53.6**	**5.0**	**9.4**	**26.3**	**2.5**	**9.5**	**27.3**	**2.5**	**9.1**
9	HPCL	Mumbai	7.7	0.5	6.6	7.7	0.5	6.9	7.4	0.6	7.6	3.4	0.2	7.1	3.7	0.3	7.9
10		Visakh	8.0	0.6	7.6	7.8	0.6	7.6	8.8	0.7	7.4	4.3	0.3	7.2	4.3	0.4	8.3
11		HMEL-GGSR	4.9	0.5	9.9	9.3	0.6	6.4	7.3	0.5	5.3	2.5	0.2	6.5	5.5	0.3	6.4
		HPCL-Total	**20.7**	**1.6**	**7.8**	**24.8**	**1.7**	**6.9**	**23.5**	**1.7**	**6.8**	**10.3**	**0.7**	**7.0**	**13.5**	**1.0**	**7.4**
12	BPCL	Mumbai	12.7	0.6	5.0	12.7	0.7	5.2	12.8	0.6	4.8	6.2	0.3	4.7	6.5	0.3	4.4
13		Kochi	10.1	0.7	7.1	10.3	0.6	6.3	10.4	0.7	5.3	5.3	0.3	6.4	5.5	0.3	6.0
14		BORL-Bina	5.7	0.5	9.3	5.4	0.5	8.6	6.2	0.5	7.4	2.8	0.2	7.9	3.0	0.2	7.2
15		NRL	2.5	0.3	10.6	2.6	0.3	10.3	2.8	0.3	5.9	1.5	0.1	10.1	1.2	0.1	9.6
		BPCL-Total	**31.1**	**2.2**	**7.0**	**31.0**	**2.0**	**6.6**	**32.2**	**2.0**	**5.5**	**15.7**	**1.0**	**6.3**	**16.3**	**1.0**	**5.8**
16	CPCL	Manali	9.1	0.9	10.1	10.1	0.9	9.0	10.2	0.9	8.9	5.1	0.4	8.8	4.6	0.4	9.3
17		CBR	0.6	0.03	4.0	0.6	0.03	4.8	0.5	0.02	4.3	0.3	0.01	4.3	0.3	0.01	4.5
		CPCL-Total	**9.7**	**0.9**	**9.7**	**10.6**	**0.9**	**8.8**	**10.8**	**0.9**	**8.7**	**5.4**	**0.5**	**8.6**	**4.9**	**0.4**	**9.0**
18	ONGC	Tatipaka	0.1	0.0	1.2	0.1	0.0	1.3	0.1	0.0	1.4	0.03	0.0	1.4	0.03	0.0	1.9
19		MRPL-Mangalore	14.4	1.0	7.0	14.6	1.1	7.9	14.6	1.5	10.1	6.7	0.7	10.1	7.3	0.7	9.9
		ONGC Total	**14.5**	**1.0**	**7.0**	**14.7**	**1.1**	**7.8**	**14.7**	**1.5**	**10.1**	**6.7**	**0.7**	**10.1**	**7.3**	**0.7**	**9.9**
20	RIL	Jamnagar (DTA)	32.6	2.6	8.1	30.3	2.6	8.5	30.9	2.3	7.5	15.3	1.1	7.2	15.8	1.2	7.8
21		Jamnagar (SEZ)	35.9	3.4	9.5	37.7	3.3	8.8	37.2	3.2	8.7	18.8	1.6	8.6	17.9	1.7	9.4
22	EOL	Vadinar	19.8	1.2	5.9	20.2	1.0	5.1	20.5	1.1	4.8	10.2	0.5	5.0	9.6	0.5	5.7
		Total	**218.8**	**18.2**	**8.4**	**222.5**	**17.9**	**8.0**	**223.3**	**17.8**	**7.8**	**108.7**	**8.6**	**7.9**	**112.6**	**9.1**	**8.0**

Source: Oil Companies

Table 4.8 : Gross Refining Margins (GRM) of Refineries

($/bbl)

Company	Refinery	2011-12	2012-13	2013-14	2014-15	H1, 2014-15	H1, 2015-16
PSU Refineries							
IOCL	Barauni	0.39	2.40	6.68	(1.20)	0.81	4.79
	Koyali	5.07	4.61	4.52	4.79	3.76	6.38
	Haldia	2.38	0.85	2.84	(1.51)	(1.12)	4.65
	Mathura	0.59	0.55	2.10	(2.19)	(3.14)	4.54
	Panipat	4.39	3.34	3.62	(1.97)	(0.64)	4.88
	Guwahati	11.94	9.52	6.38	8.68	(6.09)	14.31
	Digboi	14.85	20.81	15.41	13.73	4.37	15.59
	Bongaigaon	6.25	5.26	6.71	(0.26)	(1.34)	11.64
	Average	**3.63**	**3.16**	**4.24**	**0.27**	**0.09**	**5.76**
BPCL	Kochi	3.20	5.36	4.80	3.17	1.74	7.18
	Mumbai	3.12	4.67	3.95	3.97	2.89	5.39
	Average	**3.16**	**4.97**	**4.33**	**3.62**	**2.36**	**6.20**
HPCL	Mumbai	1.74	2.08	5.38	4.88	3.89	6.08
	Visakh	2.95	2.08	1.50	1.12	0.67	4.91
	Average	**2.39**	**2.08**	**3.43**	**2.84**	**2.09**	**5.45**
CPCL	Chennai	4.16	0.99	4.06	1.97	2.11	5.99
MRPL	Mangalore	5.60	2.45	2.67	(0.64)	(1.79)	3.56
NRL	Numaligarh	12.45	10.52	12.09	16.67	9.79	22.09
BORL	Bina	NA	7.00	7.70	6.10	5.70	12.80
Private Refineries							
RIL	Jamnagar	8.60	9.20	8.10	8.60	8.50	10.50
Essar	Vadinar	4.23	7.96	7.98	8.37	8.05	10.25
Singapore		8.27	7.74	5.62	5.80	5.28	

Source: Indian Refineries - Published results/ information provided by the Oil companies
Singapore - Reuters

Table 4.9 : GRM of North East Refineries Excluding Excise Duty Benefit

($/bbl)

Company	Refinery	2011-12	2012-13	2013-14	2014-15	H1, 2014-15	H1, 2015-16
IOCL	Guwahati	3.73	3.42	0.88	0.96	(11.44)	0.41
	Digboi	6.41	13.25	8.50	5.42	(2.50)	4.57
	Bongaigaon	0.56	0.27	2.34	(6.51)	(5.42)	2.20
NRL	Numaligarh	5.80	4.83	6.98	9.46	4.80	9.00

Source: Indian Refineries - Published results/ information provided by the Oil companies

Table 4.10 : Distillate Yield of PSU Refineries

(Distillate %)

Company	Refinery	2011-12	2012-13	2013-14	2014-15	2015-16 (Apr-Sep) (P)
IOCL	Barauni	85.2	86.1	87.9	87.2	88.0
	Koyali	77.8	78.0	78.4	80.1	82.5
	Haldia	69.7	69.3	68.5	69.0	67.5
	Mathura	73.8	73.3	68.9	71.9	74.2
	Panipat	82.0	82.7	82.0	82.4	83.4
	Guwahati	82.9	79.7	83.1	81.3	84.5
	Digboi	70.9	73.7	73.5	74.8	71.1
	Bongaigaon	81.8	82.3	85.9	84.0	82.6
CPCL	Manali	70.5	68.0	72.1	71.5	71.6
	CBR	86.7	87.5	85.1	71.6	78.7
HPCL	Mumbai	73.5	74.6	72.6	74.5	72.5
	Visakh	72.2	72.1	75.7	75.5	74.3
BPCL	Mumbai	79.6	80.5	81.0	81.8	84.6
	Kochi	78.7	78.9	81.9	84.7	85.9
NRL	Numaligarh	91.6	91.1	92.2	90.7	90.3
MRPL	Mangalore	73.3	76.5	74.6	73.1	77.0
	Industry	**76.9**	**77.3**	**77.7**	**78.0**	**79.3**

Source: Centre for High Technology

Table 4.11 : Specific Energy Consumption (MBN Number) of PSU Refineries

(MBTU/Bbl/NRGF)

Company	Refinery	2011-12	2012-13	2013-14	2014-15	2015-16 (Apr-Sep) (P)
IOCL	Barauni	58.4	58.3	60.6	61.8	59.8
	Koyali	58.3	57.4	58.1	57.1	55.4
	Haldia	55.0	54.3	52.5	51.2	52.6
	Mathura	59.2	58.8	60.5	60.0	55.6
	Panipat	52.4	51.0	50.0	49.0	47.9
	Guwahati	60.4	64.6	57.4	63.7	61.0
	Digboi	67.9	64.7	61.5	60.8	71.6
	Bongaigaon	82.0	74.7	67.4	69.0	62.8
CPCL	Manali	67.0	65.8	62.5	64.5	66.8
	CBR	108.7	103.8	121.4	118.6	110.7
HPCL	Mumbai	81.4	82.6	76.1	79.8	84.0
	Visakh	84.2	84.0	84.3	83.7	85.3
BPCL	Mumbai	67.2	65.5	66.5	69.2	69.1
	Kochi	84.5	79.1	76.6	79.8	76.1
NRL	Numaligarh	59.6	53.2	53.6	51.5	51.8
MRPL	Mangalore	57.9	61.0	60.9	67.5	70.3
PSU Oil Cos. Average		**63.2**	**62.4**	**61.5**	**62.9**	**64.7**

Source: Centre for High Technology

Table 4.12 : Import / Export of Crude Oil and Petroleum Products

Import / Export	Crude Oil & Petroleum Products	2012-13			2013-14			2014-15			April-September 2014			April-September 2015 (P)		
		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value		Quantity	Value	
		Million tonne	US$ (Billion)	Rs. (Crores)	Million tonne	US$ (Billion)	Rs. (Crores)	Million tonne	US$ (Billion)	Rs. (Crores)	Million tonne	US$ (Billion)	Rs. (Crores)	Million tonne	US$ (Billion)	Rs. (Crores)
IMPORT	**Crude Oil**	184.8	144.3	784652	189.2	143.0	864875	189.4	112.7	687416	94.2	70.1	422536	99.4	38.6	247341
	Products															
	LPG	6.3	5.8	31696	6.6	6.2	37425	8.3	6.0	36571	3.9	3.4	20445	4.5	2.1	13471
	Petrol	0.1	0.2	891	0.2	0.2	1481	0.4	0.4	2301	0.3	0.3	1810	0.7	0.5	3055
	Naphtha	1.7	1.8	9791	1.0	1.0	6067	1.0	0.7	4592	0.4	0.4	2499	1.7	0.9	6123
	Kerosene	0.0	0.0	0	0.0	0.0	0	0.0	0.0	172	0.03	0.03	172	0.04	0.02	158
	Diesel	0.6	0.6	3219	0.1	0.1	503	0.1	0.1	670	0.1	0.1	382	0.03	0.04	254
	Lubes	1.5	1.7	9259	1.7	1.7	10664	2.1	2.1	12702	1.3	1.3	7769	1.0	0.7	4622
	Fuel Oil/ LSHS	1.1	0.8	4546	1.3	0.9	5537	0.9	0.6	3659	0.6	0.4	2694	0.6	0.2	1601
	Bitumen	0.1	0.04	235	0.2	0.1	773	0.5	0.3	1623	0.2	0.1	552	0.4	0.2	992
	Others	4.4	1.6	8727	5.6	2.0	12156	7.9	2.0	12356	3.8	1.0	6373	5.3	0.9	6035
	Total Product Import	**15.8**	**12.5**	**68363**	**16.7**	**12.3**	**74605**	**21.3**	**12.1**	**74644**	**10.6**	**7.0**	**42695**	**14.2**	**5.6**	**36312**
	Total Import (Crude Oil + Product)	**200.6**	**156.8**	**853015**	**206.0**	**155.2**	**939480**	**210.7**	**124.9**	**762060**	**104.8**	**77.1**	**465232**	**113.5**	**44.2**	**283653**
EXPORT	**Exports**															
	LPG	0.2	0.2	1294	0.2	0.3	1589	0.3	0.2	1455	0.1	0.1	764	0.1	0.08	489
	Petrol	16.7	17.5	95346	15.2	15.4	92977	16.0	13.5	81971	8.0	8.2	49140	7.8	5.0	31943
	Naphtha	8.6	8.0	43533	8.3	7.6	46059	7.0	5.2	31619	3.6	3.3	20097	3.6	1.8	11233
	Aviation Turbine Fuel	4.7	4.6	25223	5.7	5.5	33246	5.5	4.2	25413	2.3	2.1	12734	2.5	1.3	8309
	Kerosene	0.02	0.03	140	0.02	0.02	98	0.02	0.01	81	0.006	0.007	40	0.005	0.003	22
	Diesel	22.5	21.3	115554	26.5	24.3	148138	25.6	18.9	115149	11.9	10.6	63780	11.4	5.7	36847
	LDO	0.01	0.01	42	0.03	0.02	135	0.01	0.005	28	0.006	0.005	28	-	-	-
	Lubes	0.1	0.1	381	0.0	0.0	138	0.01	0.02	100	0.004	0.007	43	0.01	0.01	67
	Fuel Oil/ LSHS	5.9	3.8	20415	6.2	3.7	22407	4.8	2.3	14251	2.6	1.5	9336	1.7	0.5	3260
	Bitumen	0.1	0.1	281	0.1	0.1	321	0.1	0.04	245	0.04	0.02	128	0.05	0.02	105
	Others	4.7	3.3	17880	5.5	3.8	23169	4.7	3.0	18267	2.3	1.8	10909	2.0	0.8	5449
	Total Product Export	**63.4**	**58.8**	**320090**	**67.9**	**60.7**	**368279**	**63.9**	**47.3**	**288580**	**31.0**	**27.7**	**167000**	**29.2**	**15.2**	**97724**
	Net Import	**137.2**	**98.0**	**532926**	**138.1**	**94.6**	**571201**	**146.8**	**77.6**	**473481**	**73.8**	**49.4**	**298232**	**84.3**	**29.0**	**185929**
	Net Product Export	**47.6**	**46.3**	**251727**	**51.1**	**48.4**	**293674**	**42.6**	**35.1**	**213936**	**20.4**	**20.7**	**124304**	**15.0**	**9.6**	**61412**

Source: Oil Companies & DGCIS

Note:

1. Others imports include Paraffin Wax, Petroleum Jelly, LSWR, Aviation Gas, Pet coke etc.
2. Import does not include LNG imports

Table 4.13 : Exchange Rates of Indian Rupee (₹)

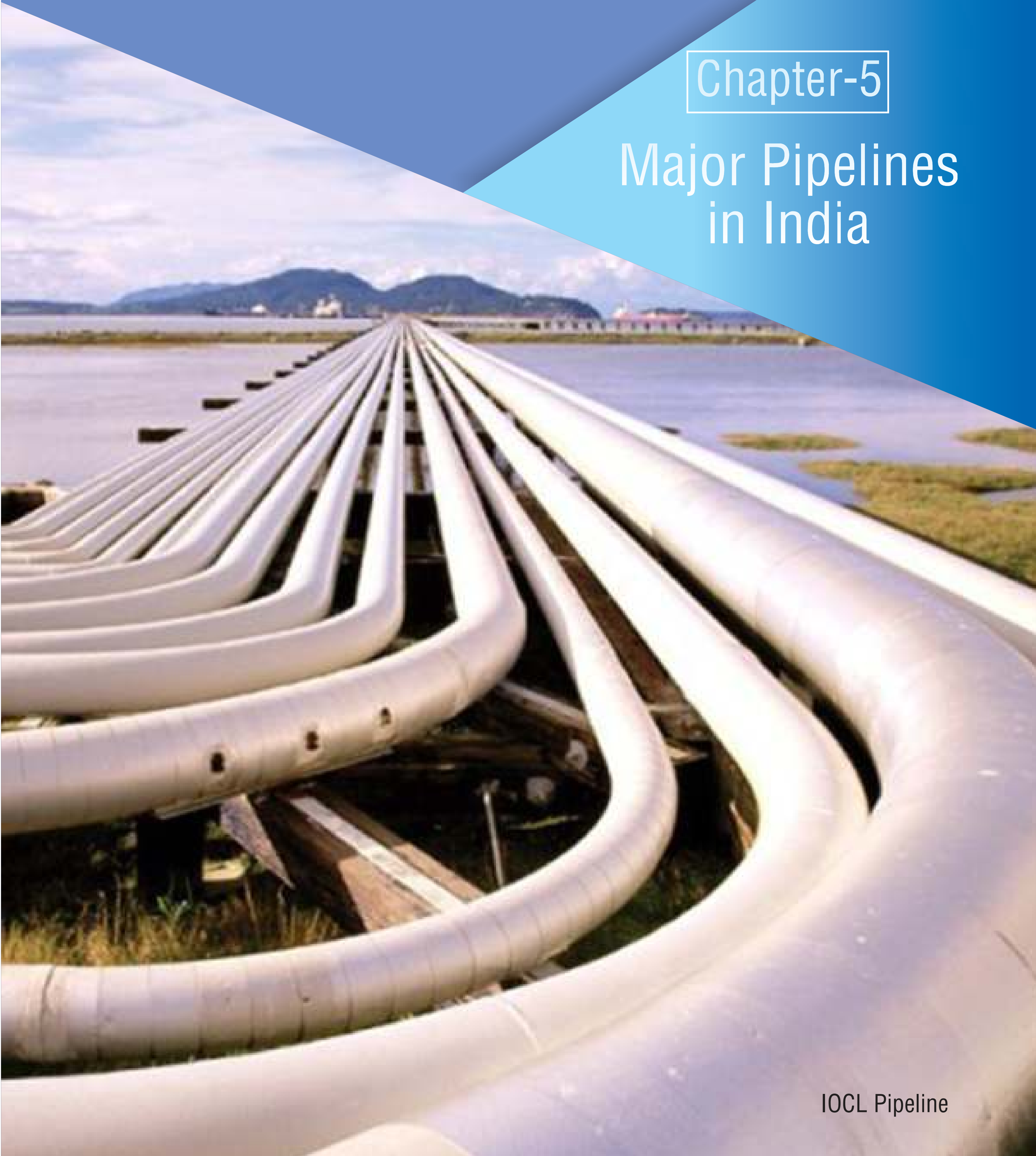
Year	US Dollar ($)	British Pound (£)	European Euro (€)	Japanese Yen (¥)
	Indian Rupee (₹) / Foreign Currency			
2000-01	45.70	67.54	41.48	0.41
2001-02	47.69	68.32	42.17	0.38
2002-03	48.41	74.84	48.07	0.40
2003-04	45.92	77.74	54.01	0.41
2004-05	44.95	82.95	56.55	0.42
2005-06	44.28	79.02	53.88	0.39
2006-07	45.29	85.72	58.11	0.39
2007-08	40.24	80.80	56.99	0.35
2008-09	45.91	78.45	65.14	0.46
2009-10	47.42	75.88	67.08	0.51
2010-11	45.58	70.88	60.21	0.53
2011-12	47.95	76.40	65.90	0.61
2012-13	54.45	86.02	70.06	0.66
2013-14	60.50	96.23	81.14	0.60
2014-15	61.15	98.56	77.47	0.56
2015-16 (up to 31.10.2015)	64.35	99.22	71.54	0.53
2015 Onwards Month Wise				
Jan-15	62.23	94.48	72.68	0.53
Feb-15	62.04	95.01	70.47	0.52
Mar-15	62.45	93.53	67.63	0.52
Apr-15	62.75	93.91	67.79	0.53
May-15	63.80	98.82	71.21	0.53
Jun-15	63.86	99.36	71.59	0.52
Jul-15	63.63	99.08	70.03	0.52
Aug-15	65.07	101.49	72.51	0.53
Sep-15	66.22	101.60	74.39	0.55
Oct-15	65.06	99.76	73.06	0.54

Source: Reserve Bank of India website
Note: All rates are average of daily buying and selling rates for the period.

Analysis • Knowledge • Information

Chapter-5

Major Pipelines in India



IOCL Pipeline

Table 5.1 : Gas Pipeline Network as on 30.09.2015

Network/Region	Entity	Length (Kms)	Design Capacity (mmscmd)	Pipeline Size	Average Flow in 2015-16 (mmscmd)	% Capacity Utilisation as on 30.09.2015
Hazira-Vijaipur-Jagdishpur (HVJ) / Gas Rehabilitation & Expansion Projects (GREP) / Dahej-Vijaipur Pipeline (DVPL) & Spur (Hazira -Vijaipur- Jagdishpur) HVJ / Vijaipur-Dadri Pipeline (VDPL)	GAIL	4658	53.00	36"	34.8	65.65
Dahej-Vijaipur Pipeline (DVPL)-Gas Rehabilitation & Expansion Projects(GREP) Upgradation (DVPL-2 & VDPL)	GAIL	1119	54.00	48"	20.97	38.83
*Chhainsa- Jhajjar -Hissar Pipeline (CJPL) (Including Spur lines) commisioned up to Sultanpur, Jhajjar-Hissar under hold (111 Km).	GAIL	265	5.00	36" /16"	0.75	15.07
Dahej-Uran-Panvel Pipeline (DUPL/ DPPL) including Spur Lines	GAIL	875	19.90	30"/18"	8.65	43.48
*Dadri- Bawana- Nangal Pipeline (DBPL), Dadri- Bawana:106Km, Bawana - Nangal:501 KM, Spur Line of BNPL : 196 Km.	GAIL	834.80	31.00	36"/30"/ 24"/18"	3.98	12.85
Dabhol -Bengaluru Pipeline (Including spur)	GAIL	1097	16.00	36"-4"	1.20	7.48
Koch-Koottanad-Bengaluru-Mangalore (Phase-1)	GAIL	48	6.00	16"-4"	0.74	12.25
Assam (Lakwa)	GAIL	8	2.50	24"	0.42	16.80
Tripura (Agartala)	GAIL	61	2.26	12"	1.48	65.36
Ahmedabad	GAIL	133	2.90	12"	0.27	9.29
Rajasthan (Focus Energy)	GAIL	152	2.35	12"	1.33	56.77
Bharuch, Vadodara (Undera) including RLNG+ RIL	GAIL	538	15.40	24"/16"	1.66	10.78
Mumbai	GAIL	129	7.04	26"	7.8	111.86
KG Basin (including RLNG+ RIL)	GAIL	881	16.00	18"	4.59	28.70
Cauvery Basin	GAIL	278	8.66	18"	2.99	34.46
East- West Pipeline (RGTIL)	Reliance	1469	80.00	48"	20.0	25.00
Gujarat State Petronet Ltd. (GSPL) Network including Spur Lines	GSPL	2354.90	43.00	Assorted	24.25	56.40
Assam Regional Network	AGCL, DNPL	1000	6.00	16"	3.81	63.46
Dadri -Panipat	IOCL	140.4	9.50	30"/10"	3.80	40.00
Uran -Trombay	ONGC	24	6.00	20"	5.07	84.50
Total		**16065.11**	**386.50**		**149**	

Source: Pipeline operating Companies
*CJPL and DBPL Pipelines are the extension of DVPL-2 / VDPL.

Table 5.2 : Gas Pipeline Under Execution / Construction (as on 30.09.2015)

Network/Region	Entity	Length in Kms	Design Capacity (mmscmd)	Pipeline Size	Status of Pipeline laid (Km)
Kochi - Kottanad - Bengaluru - Mangalore	GAIL(India) Ltd.	1063	16.00	30"/24"/18"/8"/4"	35
Dabhol -Bengaluru (DBPL)	GAIL(India) Ltd.	315	16.00	8"/4"	65
Surat - Paradip*	GAIL(India) Ltd.	2112	76.81	36"/24"/18"	0
Jagdishpur- Haldia (Phase-1 (755) KM, 7.44 MMSCMD capacity	GAIL(India) Ltd.	1860	32.00	30"/24"/18"/ 12"/8"/4"	0
Mallavaram - Bhilwada*	GSPL India Transco Ltd.	2042	78.25	36"/30"/24"/18"	0
Mehsana - Bhatinda *	GSPL India Gasnet Ltd.	2052	77.11		0
Bhatinda -Srinagar*	GSPL India Gasnet Ltd.	725	42.42		0
Kakinada - Srikakulam *	A P Gas Distribution Corporation	391	90.00		0
Shadol-Phulpur *	Reliance Gas Pipelines Ltd.	312	3.50	16"	0
Ennore- Nellore*	Gas Transmission India Pvt. Ltd.	430	36.00		0
Total		**11302**			

Source : PNGRB, GAIL(India) Ltd.
*Competitive Bidding.

Map of Pipeline Network in India

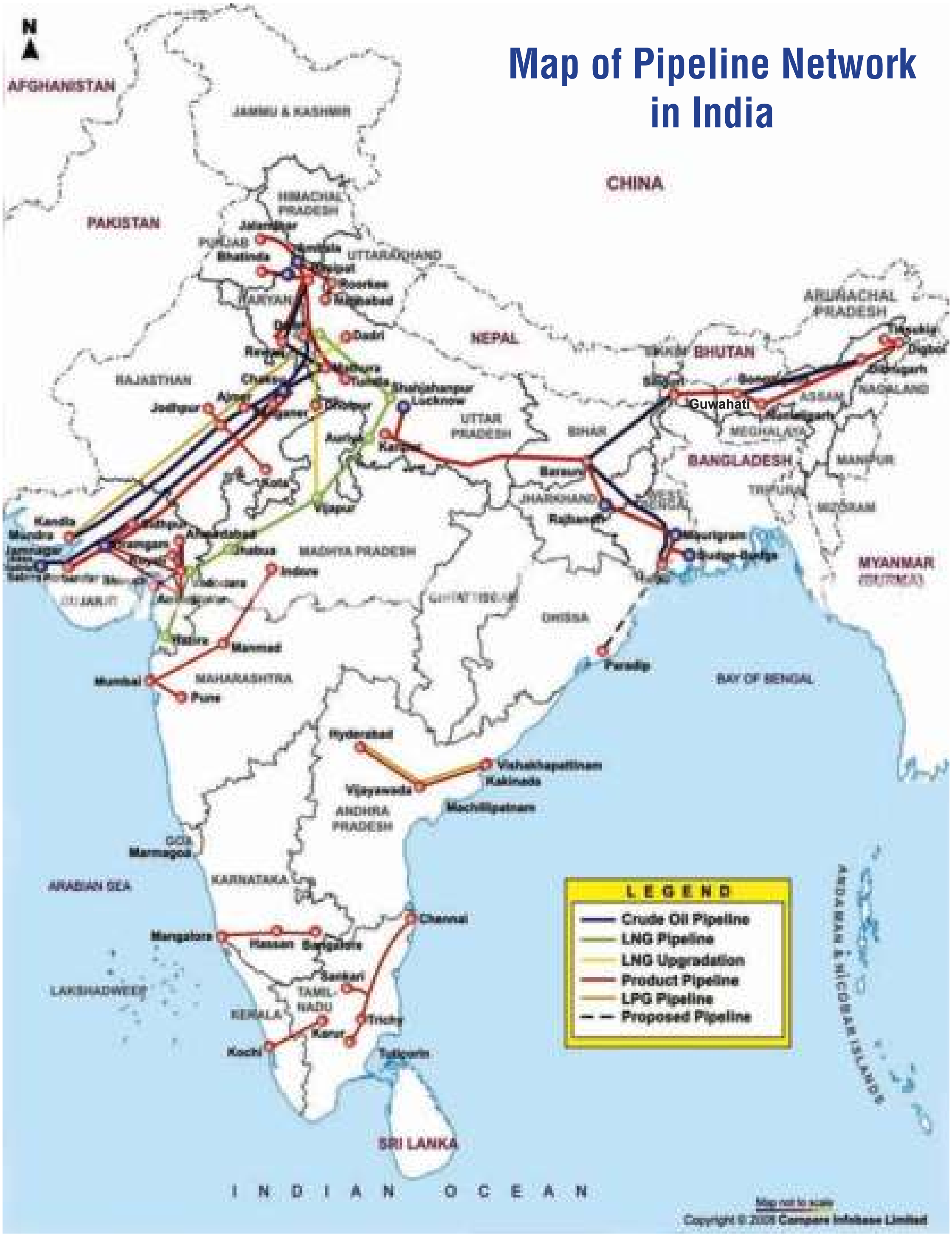


Table 5.3 : Major Crude Oil Pipelines in India

Onshore / Offshore Oil Pipelines

Existing Pipelines	Oil Company	Length in Kms. as on 01.04.2015	Annual Capacity	2014-15 Capacity	2014-15 Act. Qty.	2014-15 Utilisation %	Remarks
			(MMT)	(MMT)	(MMT)		
CTF (Central Tank Farm) Kalol to CTF Nawagam - Old (Old line kept as standby since Aug'2010)	ONGC	50.9	3.14	3.14	0	**0.0**	Kalol-Nawagam (Old) trunk line is isolated and kept on standby
CTF (Central Tank Farm) Kalol to CTF Nawagam - New (New line commissioned in Aug'2010)		62.5	3.14	3.14	0.992	**31.6**	
Nawagam-Koyali (18" line)		78.4	5.40	5.40	2.314	**42.9**	
Nawagam-Koyali (14" line)		78.4	3.30	3.30	1.414	**42.8**	78 km X 14" Nawagam-Koyali line was given on lease to IOC in 2000 and was handed back to ONGC on 1st Apr.'10. The line was restored and re-commissioned in Oct.'12.
MHN-NGM (Mehsana-Nawagam) trunk line - Old		77.0	2.26	2.26	0	**0.0**	Out of service since July'12
MHN-NGM (Mehsana-Nawagam) trunk line - New (New crude oil trunk line commissioned. Under operation since Dec'2010)		77.0	2.27	2.27	2.225	**98.2**	
CTF (Central Tank Farm), Ankleshwar to Koyali oil pipeline (AKCL- Ankleshwar Koyali Crude Line) *		94.8	2.20	2.20	0.882	**40.1**	
CTF (Central Tank Farm), Ankleshwar to CPF (Central Processing Facility), Gandhar		44.3	0.39	0.39	0	**0.0**	After damage/rupture of 8" CTF to CPF line in river portion near Dhanturia on 25.08.13 due to high floods in Narmada river on 25.08.2013, this line is not in use.
CPF (Central Processing Facility), Gandhar to Saraswani 'T' point		56.7	1.81	1.81	0.586	**32.5**	Length and capacity includes length capacity of branch lines from GNAQ and Dabka meeting at Magnad 'T' point and Mobha 'T' point respectively.
Akholjuni to Laxmipura 'T' point		65.1	0.48	0.48	0.134	**27.9**	
Lakwa-Moran		17.5	1.50	1.50	0.343	**22.9**	
Geleki-Jorhat		48.5	1.50	1.50	0.572	**38.1**	
Borholla- Jorhat		42.8	0.60	0.60	0.167	**27.8**	
NRM (Narimanam) to CPCL (Chennai Petroleum Corporation Limited)		5.3	0.74	0.74	0.237	**32.2**	
KSP-WGGS to TPK Refinery (Kesnapalli-West-Group Gathering Station to Tatipaka)		13.5	0.08	0.08	0	**0.0**	Line is being used for gas transfer as the GAIL line has burst
GMAA EPT (Gopavaram Early Production Terminal) to S.Yanam unloading terminal (1st line - 4", 3.5 Km long)		3.5	0.09	0.09	0	**0.0**	Not in use due to multiple leakages. Required repair due to ROU issues.
GMAA EPT (Gopavaram Early Production Terminal) to S. Yanam unloading Terminal (3.5 Km long and 4"). New line commissioned on 28.07.10		3.5	0.09	0.09	0.101	**112.2**	
Mumbai High - Uran - Trunk (MUT) 30'' pipeline		204.0	15.63	15.63	8.24	**52.7**	
Heera - Uran - Trunk (HUT) 24'' pipeline		81.0	11.50	11.50	5.075	**44.1**	Derated MAOP (Max. allowable operating pressure) to 35 kg/cm2 as per FFP (fit for purpose) certification report of 2014-15
Bombay-Uran Trunk (BUT) 30'' pipeline		203.0	6.38	6.38	0	**0.0**	
Salaya-Mathura-Panipat (including looplines)	IOCL	1870.0	21.00	21.00	23.834	**113.5**	
Paradip-Haldia-Barauni		1384.0	11.00	11.00	16.175	**147.0**	
Mundra-Panipat		1194.0	8.40	8.40	7.770	**92.5**	
Duliajan-Digboi-Bongaigaon-Barauni	OIL	1193.0	8.40	8.40	6.900	**82.1**	
Mangla-Bhogat pipeline	CAIRN	670.0	8.71	8.71	8.840	**101.5**	
Mundra- Bathinda pipeline	HMPL	1017.0	9.00	9.00	7.310	**81.2**	
Vadinar-Bina pipeline	BPCL / BORL	937.0	6.00	6.00	6.130	**102.2**	

Source: Oil Companies

Note: ONGC: * CTF Ankleshwar to Makan 'T' point section i.e. HOEC Junction (about 47.51 km) of CTF Ankleshwar-Koyali Refinery trunk pipeline was not in use up to August 2013. After damage / rupture of 8" CTF to CPF line on 25.08.2013, CTF to Koyali Trunk pipeline is in use from 31.08.2013 for dispatch of Ankleshwar crude oil including PSC & JV. CTF Ankleshwar to Koyali Crude Line (AKCL) actual quantity includes Ankleshwar, PSC, JV and Cambay crude oil also.

Table 5.4 : Major Petroleum Products Pipeline in India

Pipeline	Oil Company	Length in KMs	Annual capacity (MMT)	Capacity for the year as on 31.03.2015	Act. Qty. (MMT)	Utilisation %
		2014-15				
Petroleum Products Pipelines						
Barauni -Patna- Kanpur(Including Gawaria-Lucknow branch line)	IOCL	745	3.5	3.5	2.263	**64.7**
Guwahati -Siliguri	IOCL	435	1.4	1.4	1.787	**127.6**
Haldia-Barauni (2)	IOCL	526	1.25	1.25	1.205	**96.4**
Haldia-Mourigram-Rajbandh	IOCL	277	1.35	1.35	1.763	**130.6**
Koyali-Ahmedabad	IOCL	116	1.1	1.1	0.745	**67.7**
Koyali-Viramgam-Sidhpur-Sanganer	IOCL	1287	4.6	4.6	3.451	**75**
Koyali-Ratlam	IOCL	265	2	2	0.148	**7.4**
Koyali-Dahej	IOCL	197	2.6	2.6	1.317	**50.7**
Mathura-Tundla	IOCL	56	1.2	1.2	0.326	**79.8**
Mathura-Bharatpur	IOCL	21			0.632	
Mathura-Delhi (including Bijwasan-Panipat pipeline)	IOCL	258	3.7	3.7	2.614	**70.6**
Panipat-Amabala-Jalandhar (Including Kurukshetra-Roorkee-Najibabad branch line)	IOCL	434	3.5	3.5	2.336	**66.7**
Panipat-Delhi (Including Sonepat-Meerut branch line) (1)	IOCL	189	3	3	1.228	**40.9**
Panipat-Bathinda	IOCL	219	1.5	1.5	1.345	**89.7**
Panipat-Rewari	IOCL	155	2.1	2.1	1.514	**72.1**
Chennai-Trichy-Madurai	IOCL	683	2.3	2.3	2.438	**106**
Chennail - Meenambakkam ATF	IOCL	95	0.18	0.18	0.183	**101.7**
Chennai-Bengaluru	IOCL	290	2.45	2.45	1.43	**58.4**
Digboi - Tinsukia	IOCL	75	1	1	0.482	**48.2**
Devangonthi - Devanhalli	IOCL	36	0.66	0.66	0.221	**33.5**
Mumbai-Manmad-Bijwasan	BPCL	1389	6	6	6.23	**103.8**
Bina-Kota	BPCL	259	4.4	4.4	2.35	**53.4**
ATF P/L Mumbai Refinery (MR)-Santacruz	BPCL	15	1.44	1.44	0.68	**46.9**
ATF P/L Kochi Refinery (KR)-Kochi Airport	BPCL	34	0.6	0.6	0.12	**20.2**
Kota - Jobner (1)	BPCL	210	1.7	1.7	0	**0**
Cochin-Coimbatore-Karur (CCK)	**Petronet CCK**	293	3.3	3.3	2.46	**74.5**
Mumbai-Pune-Solapur	HPCL	508	4.3	4.3	3.57	**82.9**
Vizag-Vijayawada-Secunderabad	HPCL	572	5.38	5.38	4.35	**80.9**
Mundra-Delhi	HPCL	1054	5	5	3.42	**68.5**
Ramanmandi-Bahadurgarh	HPCL	243	4.71	4.71	2.9	**61.6**
Ramanmandi-Bathinda	HPCL	30	1.13	1.13	0.64	**56.5**
Awa-Salawas (1)	HPCL	93	2.3	2.3	0.02	**0.9**
Bahadurgarh-Tikrikalan (2)	HPCL	14	0.75	0.75	0.01	**1.1**
Mangalore-Hassan-Bengaluru (MHB)	**Petronet MHB**	362	2.14	2.14	3.14	**146.6**
Numaligarh-Siliguri	**OIL**	654	1.72	1.72	1.81	**105.2**
LPG Pipelines						
Panipat-Jalandhar	**IOCL**	274	0.7	0.7	0.477	**68.1**
Mumbai-Uran (2)	**BPCL**	28	0.8	0.8	0.06	**6.9**
Jamnagar-Loni	**GAIL**	1414	2.5	2.5	2.33	**93**
Vizag-Secunderabad	**GAIL**	618	1.33	1.33	1.11	**83.5**

Source: Oil Companies

Note:

IOCL

1) Panipat-Delhi Pipeline (PDPL) capacity been taken as 3.00 MMTPA after commissioning of prime mover at Panipat.
2) Jasidih terminal commissioned in 2014 in Haldia-Barauni Pipeline with addition of 0.55 km of mainline.

BPCL

1) Kota-Jobner Pipeline was commissioned on 31.03.2015
2) Mumbai-Uran LPG Pipeline was commissioned on 31.10.2014

HPCL

1) Awa-Salawas Pipeline was commissioned on 30.1.2015
2) Bahadurgarh Tikrikalan Pipeline was commissioned on 24.02.2015

Chapter-6

Sales

Table 6.1 : Consumption of Petroleum Products

(Million metric tonnes)

Products	11th Plan						12th Plan			
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16 (Apr-Sep) (P)
LPG	10.8	12.0	12.2	13.1	14.3	15.3	15.6	16.3	18.0	9.2
MS	9.3	10.3	11.3	12.8	14.2	15.0	15.7	17.1	19.1	10.7
Naphtha	13.9	13.3	13.9	10.1	10.7	11.2	12.3	11.3	11.1	6.7
ATF	4.0	4.5	4.4	4.6	5.1	5.5	5.3	5.5	5.7	3.0
SKO	9.5	9.4	9.3	9.3	8.9	8.2	7.5	7.2	7.1	3.4
HSD	42.9	47.7	51.7	56.2	60.1	64.8	69.1	68.4	69.4	36.3
LDO	0.7	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.2
Lubes	1.9	2.3	2.0	2.5	2.4	2.6	3.2	3.3	3.3	1.6
FO/LSHS	12.6	12.7	12.6	11.6	10.8	9.3	7.7	6.2	6.0	3.2
Bitumen	3.8	4.5	4.7	4.9	4.5	4.6	4.7	5.0	5.1	2.5
Others	11.3	11.6	10.9	12.0	9.6	11.1	15.6	17.7	20.4	11.4
All India	**120.7**	**128.9**	**133.6**	**137.8**	**141.0**	**148.1**	**157.1**	**158.4**	**165.5**	**88.1**
Growth (%)		**6.8**	**3.6**	**3.2**	**2.3**	**5.0**	**6.0**	**0.9**	**4.5**	**8.5**

Source: Oil Companies and Directorate General of Commercial Intelligence and Statistics (DGCIS)
(Oil Company Sales + Private Imports = Consumption)

Table 6.2 : Petroleum Products Demand & Gross Domestic Product (GDP) During Plan Periods

Plan Period	7th Plan (1985-90)	8th Plan (1992-97)	9th Plan (1997-02)	10th Plan (2002-07)	11th Plan (2007-12)
POL demand CAGR (%)	6.9	6.8	4.9	3.8	4.2
GDP growth CAGR (%)	6.0	6.8	5.5	7.7	7.9

End Use Analysis of HSD Sales

Sl. No.	End-use sectors	% of Total sales *
(i)	(ii)	(iii)
1	Transport, of which	70.00
a	Commercial vehicles	8.94
b	Private vehicles	13.15
c	3 - Wheelers	6.39
d	Truck	28.25
e	Buses/STU	9.55
f	Railways	3.24
g	Others (Shipping & aviation)	0.48
2	**Agriculture**	**13.00**
3	**Industrial application**	**4.96**
4	**Power generation**	**4.06**
5	**Mobile towers**	**1.54**
6	**Others (Including private imports)**	**6.45**
	Total	**100.0**

* Figures include consumption through retail & direct imports. End use sector wise break up as per PPAC survey and direct sales as reported by oil companies for the year 2012-13

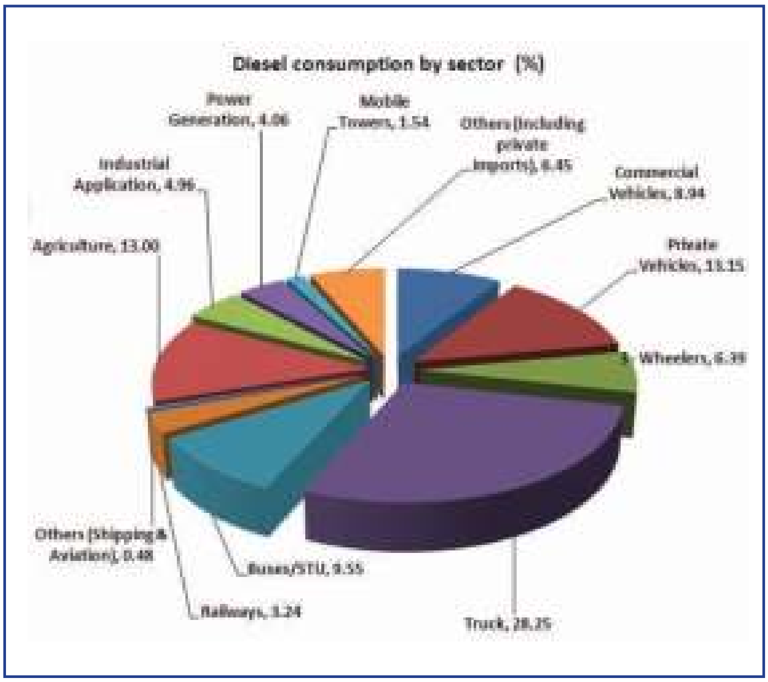


Table 6.3 : State/UT Wise Sales of Selected Petroleum Products : April - September 2015 (P)

(Figs. in Thousand metric tonnes)

State/UT	LPG		MS		SKO		HSD		Total (All products)*	
	Sales	Per Capita Sales (Kg)	Sales	Per Capita Sales (Kg)	Sales	Per Capita Sales (Kg)	Sales	Per Capita Sales (Kg)	Total Sales	Per Capita Sales (Kg)
Andhra Pradesh	429.6	17.4	407.7	16.5	97.7	4.0	1649.9	66.8	3021.2	122.4
Andaman & Nicobar Islands	4.1	21.8	6.6	34.5	2.3	11.9	60.9	320.6	86.5	455.2
Arunachal Pradesh	7.8	11.3	15.4	22.2	6.6	9.6	49.8	72.1	86.5	125.2
Assam	138.4	8.9	125.0	8.0	125.7	8.1	386.3	24.8	1001.7	64.3
Bihar	361.5	7.0	259.0	5.0	309.3	6.0	1086.3	20.9	2188.1	42.2
Chandigarh	20.9	39.6	51.4	97.4	0.3	0.6	62.0	117.6	248.8	471.9
Chhattisgarh	92.7	7.3	203.0	15.9	63.8	5.0	688.8	53.9	1370.2	107.3
Dadra & Nagar Haveli	7.1	41.5	7.9	46.3	0.7	4.1	65.7	383.4	176.7	1030.5
Daman & Diu	4.7	38.6	9.1	74.5	0.3	2.6	36.8	302.8	81.5	671.0
Delhi	354.8	42.4	463.6	55.3	0.4	0.0	764.1	91.2	2451.3	292.6
Goa	27.5	37.7	70.8	97.1	2.0	2.7	138.6	190.2	324.2	444.8
Gujarat	402.6	13.3	741.9	24.6	257.8	8.5	2397.7	79.4	9165.0	303.6
Haryana	286.0	22.6	394.0	31.1	32.6	2.6	2545.7	200.8	5298.0	417.9
Himachal Pradesh	64.6	18.8	79.7	23.2	10.1	2.9	299.5	87.4	764.6	223.0
Jammu and Kashmir	81.0	12.9	102.2	16.3	71.2	11.3	335.0	53.4	693.7	110.6
Jharkhand	101.9	6.2	173.3	10.5	101.6	6.2	763.0	46.3	1311.5	79.6
Karnataka	639.3	20.9	805.0	26.3	186.8	6.1	2744.1	89.8	5263.8	172.2
Kerala	382.2	22.9	548.6	32.9	46.8	2.8	1217.3	72.9	2655.9	159.1
Lakshadweep	0.2	4.7	0.0	0.0	0.3	10.6	6.6	204.6	7.1	221.6
Madhya Pradesh	353.1	9.7	507.0	14.0	230.7	6.4	1527.2	42.1	3273.0	90.2
Maharashtra	1153.9	20.5	1378.5	24.5	246.9	4.4	3795.0	67.5	8752.6	155.8
Manipur	9.9	7.3	20.5	15.0	9.3	6.8	38.3	28.2	79.9	58.7
Meghalaya	8.3	5.6	31.3	21.1	10.0	6.7	134.0	90.4	193.6	130.6
Mizoram	10.3	18.8	11.5	21.2	2.6	4.7	24.3	44.6	50.8	93.1
Nagaland	9.1	9.2	13.0	13.1	6.6	6.6	26.4	26.7	57.8	58.4
Odisha	184.5	8.8	267.1	12.7	150.5	7.2	1062.7	50.7	2108.6	100.5
Puducherry	18.5	29.7	57.7	92.7	1.6	2.6	169.1	271.8	262.8	422.4
Punjab	350.2	25.3	369.8	26.7	33.1	2.4	1647.6	118.9	2917.9	210.6
Rajasthan	462.0	13.5	589.2	17.2	186.5	5.4	2572.5	75.0	5232.1	152.5
Sikkim	5.7	18.7	7.7	25.4	5.5	18.0	26.7	87.9	46.9	154.4
Tamil Nadu	863.0	23.9	1013.3	28.1	151.4	4.2	3180.4	88.2	6292.8	174.5
Telangana	360.2	20.4	446.3	25.3	68.3	3.9	1484.3	84.1	2711.6	153.7
Tripura	16.4	8.9	17.7	9.6	14.9	8.1	39.1	21.3	94.7	51.6
Uttar Pradesh	1097.2	11.0	1069.0	10.7	607.4	6.1	3455.8	34.6	7225.0	72.4
Uttarakhand	110.4	21.8	127.7	25.2	14.8	2.9	359.1	71.0	729.8	144.3
West Bengal	578.0	12.7	309.3	6.8	367.6	8.0	1368.6	30.0	3316.9	72.6
All India	**8997.7**	**14.9**	**10700.4**	**17.7**	**3423.8**	**5.7**	**36209.3**	**59.8**	**79543.1**	**131.5**

Source: Oil Companies
Note:
* Total (all product) sales include other petroleum products such as Naphtha, FO, ATF, Lubricants, Bitumen, etc.
Per capita sales figures are based on sales figures for the period April - September 2015
Population figures have been taken from Census of India, 2011

Table 6.4 : PDS SKO Allocation / LPG Coverage & Per Capita PDS SKO Availability by State/UT

State/UT	PDS allocation (Apr-Sep' 2015) (TMT)	Per capita allocation (Litres per annum per person)	Per capita SKO allocation (Litres) without LPG
Andhra Pradesh	103.77	5.4	54.0
Andaman & Nicobar Islands	2.24	15.2	151.6
Arunachal Pradesh	4.02	7.5	74.6
Assam	125.04	10.3	24.7
Bihar	310.00	7.7	12.1
Chandigarh	1.16	2.8	28.2
Chhattisgarh	67.03	6.7	10.9
Dadra & Nagar Haveli	0.71	5.3	53.2
Daman & Diu	0.32	3.4	33.6
Delhi	0.00	0.0	0.0
Goa	2.00	3.5	35.2
Gujarat	255.78	10.9	33.8
Haryana	34.37	3.5	34.8
Himachal Pradesh	9.39	3.5	35.2
Jammu and Kashmir	27.44	5.6	56.2
Jharkhand	102.16	8.0	12.2
Karnataka	198.37	8.3	53.0
Kerala	45.83	3.5	35.3
Lakshadweep	0.77	30.5	50.9
Madhya Pradesh	229.50	8.1	17.6
Maharashtra	243.68	5.6	55.7
Manipur	9.10	8.6	35.0
Meghalaya	9.90	8.6	13.3
Mizoram	2.60	6.1	61.2
Nagaland	6.52	8.5	21.0
Odisha	151.64	9.3	14.4
Puducherry	1.66	3.4	34.3
Punjab	33.23	3.1	30.8
Rajasthan	192.67	7.2	27.3
Sikkim	2.22	9.4	94.0
Tamil Nadu	132.96	4.7	47.4
Telangana	67.89	4.9	49.4
Tripura	14.94	10.5	24.1
Uttar Pradesh	606.07	7.8	24.6
Uttarakhand	13.69	3.5	34.8
West Bengal	367.06	10.3	23.3
All India	**3375.73**	**7.2**	**23.2**

Note:

(1) In case LPG coverage of population is more than 100%, it is presumed that at least 10% of the population is consuming Kerosene & excess coverage by LPG is due to multiple connections.

(2) Population data is as per Census Year 2011

(3) SKO PDS allocation is taken for the period April - Septmber 2015

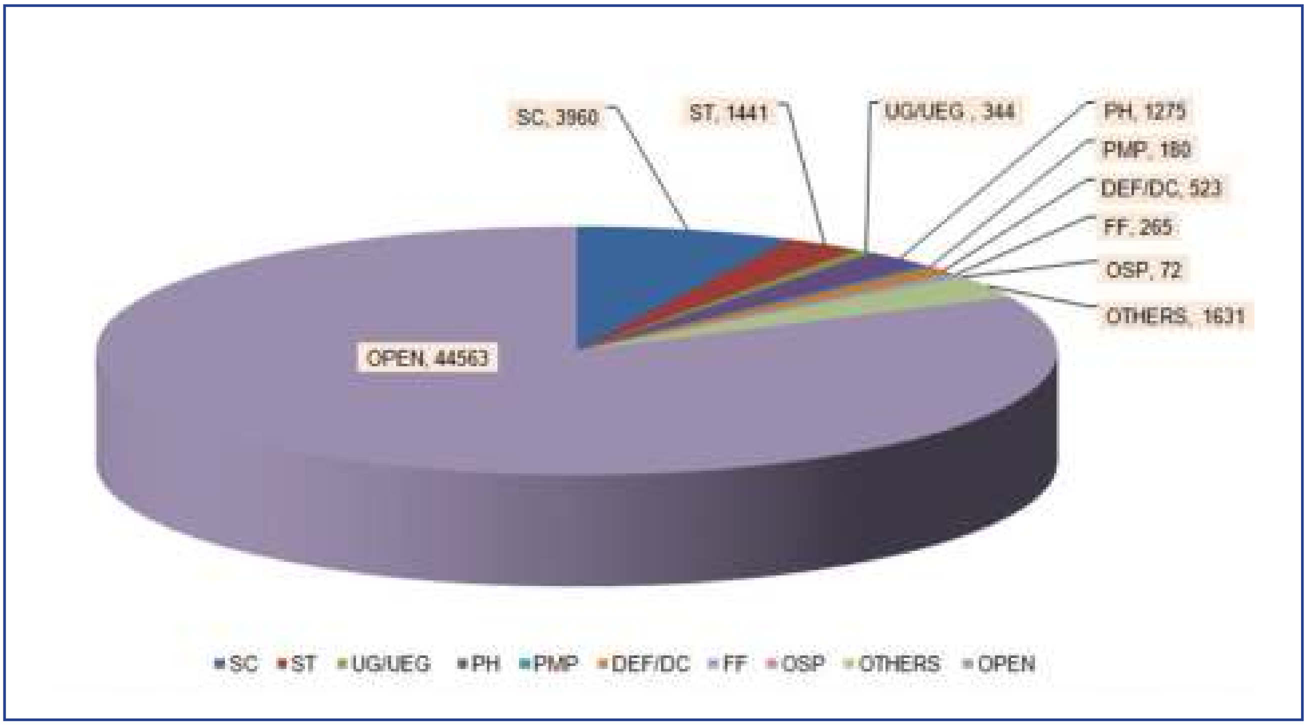
(4) Domestic LPG customer data taken is as on 01.10.2015

Table 6.5 : Oil Industry Retail Outlets & SKO / LDO Dealers as on 01.10.2015

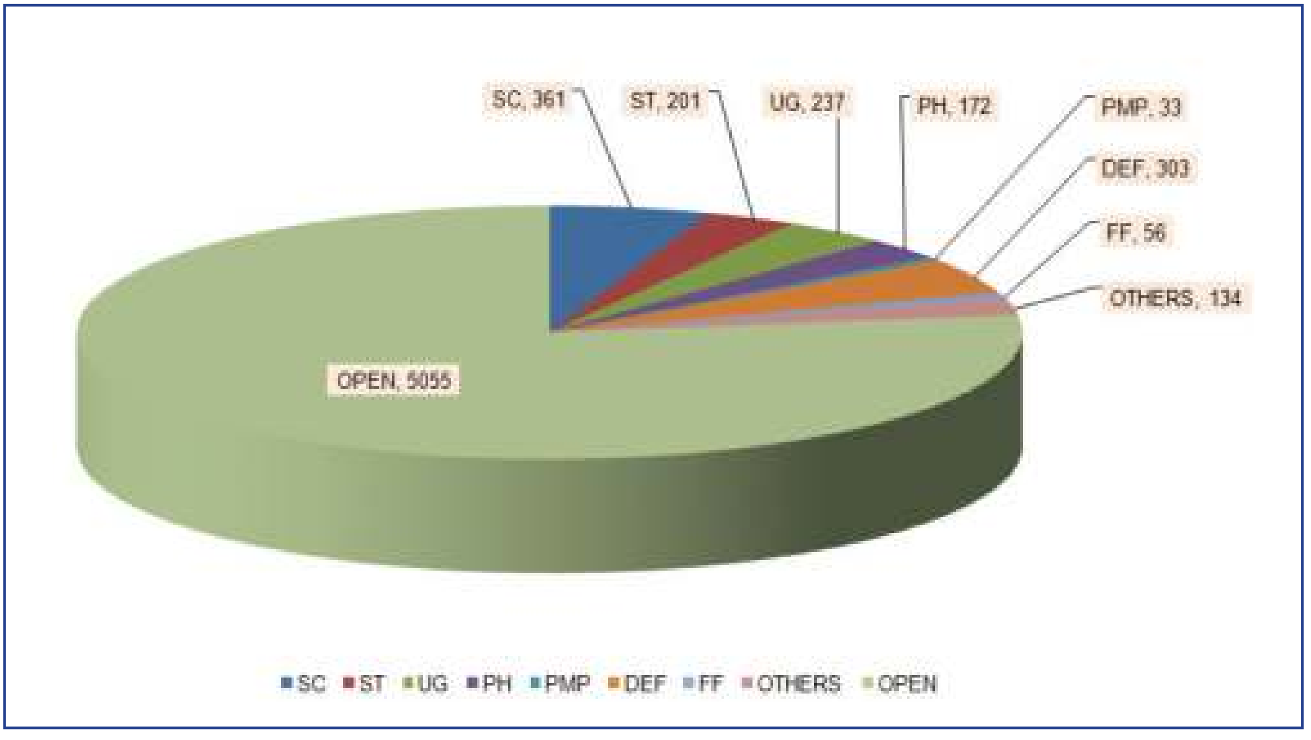
State/UT	No. of Retail Outlets						No. of SKO / LDO Dealers					
	As on 01.04.2011	As on 01.04.2012	As on 01.04.2013	As on 01.04.2014	As on 01.04.2015	As on 01.10.2015 (P)	As on 01.04.2011	As on 01.04.2012	As on 01.04.2013	As on 01.04.2014	As on 01.04.2015	As on 01.10.2015 (P)
Andhra Pradesh	3586	4002	4502	4710	2815	2888	603	603	603	603	394	394
Andaman & Nicobar Islands	9	9	9	9	9	10	1	1	1	1	1	1
Arunachal Pradesh	66	67	70	71	71	71	33	33	33	33	33	33
Assam	654	684	720	753	759	764	361	361	359	359	359	359
Bihar	1724	1942	2167	2316	2385	2426	374	373	373	372	372	372
Chandigarh	41	41	41	41	41	41	12	12	12	12	12	12
Chhattisgarh	654	752	886	998	1041	1056	109	109	109	109	108	108
Dadra & Nagar Haveli	24	21	21	27	31	31	2	2	2	2	2	2
Daman & Diu	25	24	25	31	31	31	5	5	5	5	5	5
Delhi	409	408	408	403	394	394	116	116	116	116	117	117
Goa	100	105	104	109	111	111	21	21	21	21	22	22
Gujarat	2392	2524	2770	2910	3050	3175	496	495	493	493	480	480
Haryana	1826	1989	2151	2333	2419	2463	148	148	143	142	141	141
Himachal Pradesh	327	358	359	361	382	386	26	26	26	26	26	26
Jammu and Kashmir	404	422	453	469	475	483	47	47	47	47	47	47
Jharkhand	832	918	1027	1062	1082	1109	86	86	86	86	87	87
Karnataka	2761	3068	3306	3621	3737	3757	325	325	325	322	325	324
Kerala	1791	1844	1880	1900	1932	1953	242	242	242	242	237	237
Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0
Madhya Pradesh	2131	2349	2630	2873	3005	3059	281	279	279	279	285	285
Maharashtra	3896	4160	4644	5025	5207	5266	776	776	775	774	769	768
Manipur	66	67	73	80	83	83	36	36	36	36	36	36
Meghalaya	160	162	170	175	179	182	35	35	35	35	35	35
Mizoram	26	27	30	32	33	33	19	19	19	19	19	19
Nagaland	64	67	68	68	68	68	19	19	19	19	19	19
Odisha	1130	1230	1369	1438	1463	1487	179	179	177	177	177	177
Puducherry	134	139	144	150	150	151	8	8	8	8	8	8
Punjab	2937	3058	3193	3229	3248	3272	244	244	242	241	241	240
Rajasthan	2785	2932	3135	3327	3465	3539	253	253	251	250	252	250
Sikkim	32	35	43	44	46	46	12	12	12	12	12	12
Tamil Nadu	3597	3889	4340	4541	4617	4652	465	465	465	465	468	467
Telangana	0	0	0	0	2086	2126					202	202
Tripura	47	49	56	63	64	64	40	40	40	40	40	40
Uttar Pradesh	4997	5302	5680	6013	6248	6370	697	695	695	695	696	696
Uttarakhand	435	461	483	505	513	520	72	72	72	72	73	73
West Bengal	1885	1999	2120	2183	2178	2187	469	469	469	469	458	458
All India	**41947**	**45104**	**49077**	**51870**	**53418**	**54254**	**6612**	**6606**	**6590**	**6582**	**6558**	**6552**

Source: Oil Companies (Includes dealers of private oil companies)

Category Wise Retail Outlets as on 01.10.2015 : Total Nos. 54254



Category Wise SKO/LDO Dealers as on 01.10.2015 : Total Nos. 6552



Source: Oil Companies

Note:

(1) SC: Scheduled Caste; ST: Scheduled Tribe; UG: Unemployed Graduate; UEG: Unemployed Engineering Graduate.; PH: Physically Handicapped; DEF: Defence Category; FF: Freedom Fighter; OSP: Outstanding Sports Persons, PMP: Para Military/Police/Govt. Personnel, Others: Includes Social Worker Category, Dealerships given on compassionate grounds/ under discretionary quota, 2/3 wheeler outlets and Company Owned and Operated outlets, Operation Vijay

(2) Open category includes Pvt. Retail Outlets for which category-wise breakup is not available

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Chapter-7

LPG

LPG Filling Plant - IOCL

Table 7.1 : LPG Marketing at a Glance

						(Thousand metric tonne)
Particulars	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16 (Apr - Sep) (P)**
LPG Production	**9624**	**9554**	**9830**	**10032**	**9840**	**5001**
LPG Consumption	**14331**	**15350**	**15601**	**16294**	**18000**	**9196**
PSU Sales	**13901**	**14929**	**15202**	**15925**	**17571**	**8997**
Domestic	12369	13296	13569	14412	16040	8102
Non-Domestic	985	1069	1166	1074	1051	653
Bulk	325	342	253	246	316	158
Auto LPG	223	223	214	194	164	85
Imports						
PSU Imports	4072	5369	5902	6199	7884	4283
Private Imports	430	421	398	369	429	199
						(Lakh)
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16 (Apr - Sep) (P)**
Enrolment (Domestic)	**104.2**	**122.7**	**131.6**	**159.1**	**163.4**	**92.8**
As on 1st of April	2011	2012	2013	2014	2015	As on 1st Oct 2015
LPG Customers	1268.9	1387.3	1522.8	1682.6	1840.0	1932.2
of which						
Domestic Customers	1253.9	1371.2	1503.9	1662.6	1819.0	1910.2
Non-Domestic Customers	15.0	16.2	18.9	20.1	21.1	22.0
DBC Customers	**624.3**	**688.8**	**748.7**	**827.4**	**917.0**	**968.0**
						(Nos.)
LPG Distributors	**10541**	**11489**	**12610**	**13896**	**15930**	**16894**
of which						
Urban	7019	7041	7095	7172	7334	7356
Urban/Rural	1579	1665	1731	1885	2263	2555
Rural	1547	1612	1729	1803	1891	1996
RGGLVY*	396	1171	2055	3036	4442	4987
Auto LPG Dispensing Stations (ALDS)	**604**	**652**	**667**	**678**	**682**	**679**
LPG Markets	**4866**	**4990**	**5105**	**5245**	**5485**	**5631**
						(Thousand metric tonne per annum)
Bottling Capacity	**-**	**-**	**-**	**13515**	**14044**	**14282**
						(Thousand metric tonne)
Gross Tankage	**687**	**711**	**771**	**777**	**781**	**823**

Source: Oil Companies & Directorate General of Commercial Intelligence and Statistics (DGCIS)
RGGLVY: Distributors commissioned under "Rajiv Gandhi Gramin LPG Vitran Yojana"

Table 7.2 : Number of LPG Distributors of PSUs as on 01.10.2015 (P)

(Nos.)

State/UT	Urban	Urban/ Rural	Rural	RGGLVY*	Total
Chandigarh	27	0	0	0	27
Delhi	317	0	0	0	317
Haryana	219	67	24	84	394
Himachal Pradesh	69	7	55	26	157
Jammu & Kashmir	128	22	21	42	213
Punjab	327	128	88	136	679
Rajasthan	386	126	66	369	947
Uttar Pradesh	916	486	216	1005	2623
Uttarakhand	106	79	18	28	231
Sub total North	**2495**	**915**	**488**	**1690**	**5588**
Andaman & Nicobar Islands	0	2	3	0	5
Arunachal Pradesh	5	5	23	17	50
Assam	120	102	83	87	392
Bihar	229	200	83	482	994
Jharkhand	157	34	13	177	381
Manipur	15	13	15	22	65
Meghalaya	21	8	9	6	44
Mizoram	11	6	12	25	54
Nagaland	15	11	11	15	52
Odisha	159	78	32	249	518
Sikkim	8	0	3	3	14
Tripura	16	10	12	17	55
West Bengal	379	93	110	275	857
Sub total East	**1135**	**562**	**409**	**1375**	**3481**
Chhattisgarh	99	73	17	152	341
Dadra & Nagar Haveli	2	0	0	0	2
Daman & Diu	2	0	0	0	2
Goa	44	2	5	0	51
Gujarat	413	88	96	103	700
Madhya Pradesh	448	208	37	460	1153
Maharashtra	928	131	176	401	1636
Sub total West	**1936**	**502**	**331**	**1116**	**3885**
Andhra Pradesh	308	119	220	139	786
Karnataka	456	93	82	236	867
Kerala	220	103	173	49	545
Lakshadweep	1	0	0	0	1
Puducherry	15	5	2	1	23
Tamil Nadu	534	208	123	245	1110
Telangana	256	48	168	136	608
Sub total South	**1790**	**576**	**768**	**806**	**3940**
All India	**7356**	**2555**	**1996**	**4987**	**16894**

Source: Oil Companies
*RGGLVY: Distributors commissioned under "Rajiv Gandhi Gramin LPG Vitran Yojana"

Table 7.3 : Domestic LPG Customer Population of PSUs as on 01.10.2015 (P)

(Lakh)

State/UT	Total	DBC
Chandigarh	4.13	2.64
Delhi	62.64	40.09
Haryana	55.73	33.26
Himachal Pradesh	19.70	10.48
Jammu & Kashmir	22.60	14.13
Punjab	77.96	42.85
Rajasthan	93.44	58.05
Uttar Pradesh	226.91	99.00
Uttarakhand	29.54	11.34
Sub total North	**592.65**	**311.85**
Andaman & Nicobar Islands	0.90	0.82
Arunachal Pradesh	2.56	1.81
Assam	37.02	15.10
Bihar	69.37	31.29
Jharkhand	21.72	12.21
Manipur	4.03	2.52
Meghalaya	1.95	1.14
Mizoram	3.02	1.99
Nagaland	2.41	1.91
Odisha	34.57	15.68
Sikkim	1.64	0.80
Tripura	4.83	2.16
West Bengal	112.95	50.56
Sub total East	**296.97**	**137.99**
Chhattisgarh	21.68	13.21
Dadra & Nagar Haveli	0.74	0.49
Daman & Diu	0.70	0.38
Goa	5.65	4.27
Gujarat	83.49	58.15
Madhya Pradesh	81.54	40.54
Maharashtra	225.79	113.44
Sub total West	**419.59**	**230.49**
Andhra Pradesh	122.97	40.45
Karnataka	114.46	66.47
Kerala	86.69	58.39
Lakshadweep	0.05	0.04
Puducherry	3.82	1.98
Tamil Nadu	176.38	87.87
Telangana	96.59	32.49
Sub total South	**600.94**	**287.69**
All India	**1910.16**	**968.02**

Source: Oil Companies
DBC: Double bottle connection

Analysis • Knowledge • Information

Chapter-8

Projections for 12th & 13th Plan

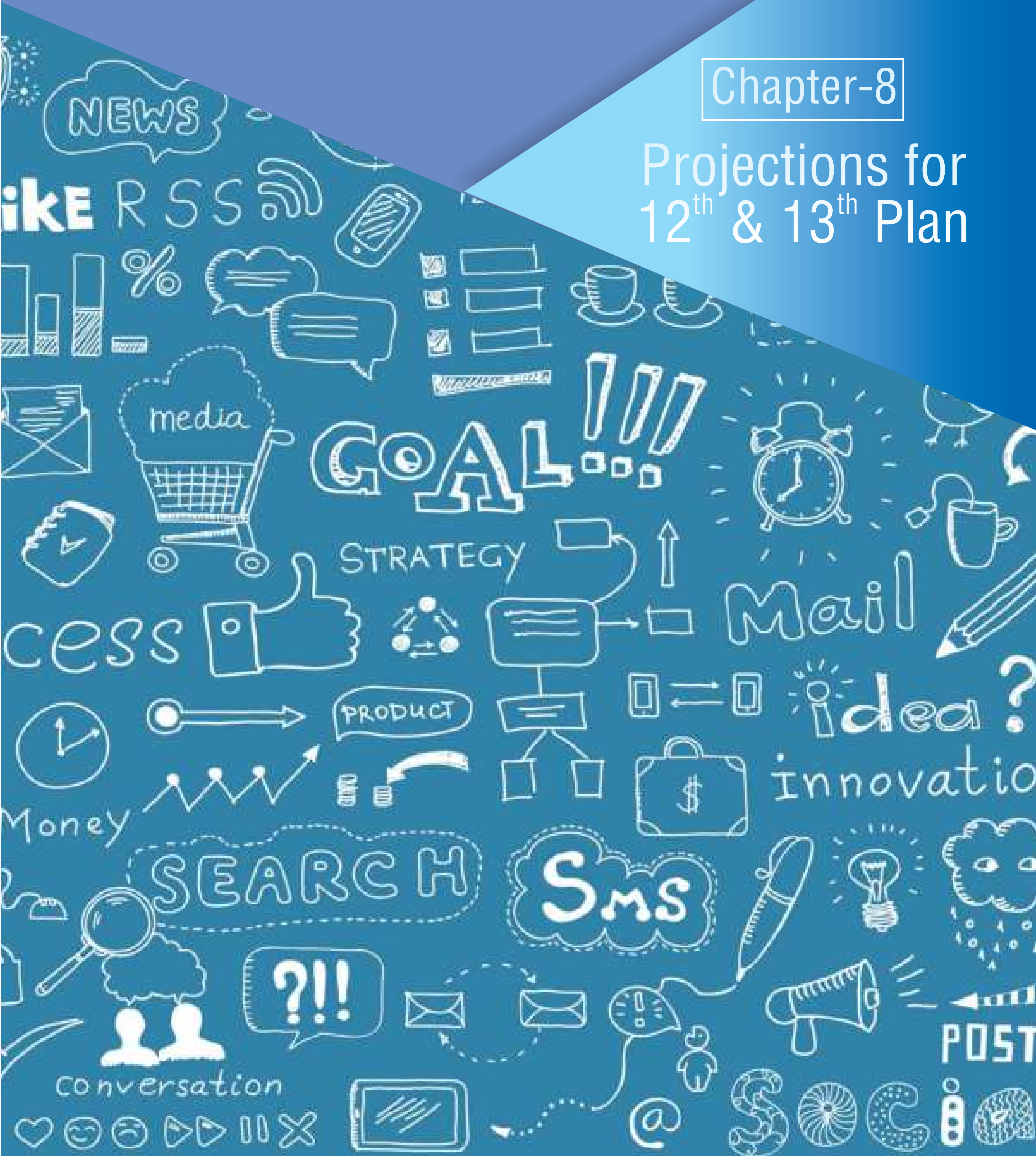

Table 8.1 : Projected Crude Oil Production for 12th Five Year Plan

(Million tonnes)

	2011-12 (11th Plan)*	2012-13	2013-14	2014-15	2015-16	2016-17
Onshore	**17.5**	**20.1**	**20.2**	**19.7**	**19.2**	**18.6**
Gujarat	5.8	5.6	5.6	5.5	5.4	5.3
Assam + Arunachal Pradesh	5.0	5.2	5.4	5.5	5.7	5.8
Tamil Nadu	0.2	0.2	0.2	0.2	0.2	0.2
Andhra Pradesh	0.3	0.3	0.3	0.2	0.1	0.1
Tripura	0.0	0.0	0.0	0.0	0.0	0.0
Rajasthan	6.2	8.8	8.8	8.2	7.8	7.3
Offshore	**19.2**	**19.7**	**22.8**	**22.4**	**20.4**	**19.8**
DGH Offshore	4.1	4.3	4.3	4.2	4.1	4.0
ONGC Offshore	15.1	15.4	18.5	18.2	16.3	15.8
Total (Onshore + Offshore)	**36.7**	**39.8**	**42.9**	**42.1**	**39.7**	**38.4**
Condensate (ONGC)	2.1	2.5	2.6	2.6	2.8	2.7
Total (Crude oil + Condensate) (Onshore + Offshore)	**38.8**	**42.3**	**45.5**	**44.7**	**42.5**	**41.1**

Source: Report of the Working Group on Petroleum & Natural Gas Sector for 12th Five Year Plan (2012-17)
* 11th Plan projections by Oil Companies

Table 8.2 : Projected Refining Capacity in 12th Five Year Plan

(MMTPA)

	2011-12 (11th Plan)	12th Five Year Plan				
		2012-13	2013-14	2014-15	2015-16	2016-17
Public Sector (PSU/JV)						
IOCL	69.2	69.2	69.2	69.2	69.7	74.0
BPCL (Mumbai)	12.0	12.0	12.0	12.0	13.5	13.5
Kochi	9.5	9.5	9.5	9.5	15.5	15.5
BORL - Bina	6.0	6.0	6.0	6.0	7.5	9.0
HPCL (MR +VR)	14.8	16.5	18.2	18.5	18.5	23.5
Maharashtra Refinery	0.0	0.0	0.0	0.0	0.0	9.0
HMEL (GGSRL)	9.0	9.0	9.0	9.0	9.0	9.0
MRPL	11.8	14.5	15.5	16.0	16.5	18.0
ONGC (Tatipaka)	0.1	0.1	0.1	0.1	0.1	0.1
CPCL	11.5	11.5	12.1	12.1	12.1	18.3
NRL	3.0	3.0	3.0	3.0	3.0	8.0
Sub Total PSU/JV	**146.9**	**151.3**	**154.6**	**155.4**	**165.4**	**197.9**
Private Sector						
RIL-DTA & SEZ, Jamnagar	60.0	60.0	60.0	60.0	60.0	60.0
EOL, Jamnagar	19.0	19.0	20.0	20.0	30.8	38.0
NOCL, Cuddalore	0	2.0	6.0	6.0	6.1	15.0
Sub Total Private	**79.0**	**81.0**	**86.0**	**86.0**	**96.9**	**113.0**
Total	**225.9**	**232.3**	**240.6**	**241.4**	**262.3**	**310.9**

Source: Report of the Working Group on Petroleum & Natural Gas Sector for 12th Five Year Plan (2012-17)

Table 8.3 : Projected Refining Capacity in 13th Five Year Plan

(MMTPA)

	13th Five Year Plan				
	2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**
Public Sector (PSU/JV)					
IOCL	77.0	80.0	85.0	105.0	105.0
BPCL (Mumbai)	13.5	13.5	13.5	13.5	13.5
Kochi	15.5	15.5	15.5	15.5	15.5
BORL - Bina	9.0	9.0	9.0	9.0	9.0
HPCL (MR +VR)	23.5	23.5	23.5	23.5	23.5
Maharashtra Refinery	9.0	9.0	9.0	9.0	9.0
HMEL (GGSRL)	9.0	9.0	9.0	9.0	9.0
MRPL	18.0	18.0	18.0	21.8	26.8
ONGC (Tatipaka)	0.1	0.1	0.1	0.1	0.1
CPCL	18.3	18.3	33.3	33.3	33.3
NRL	8.0	8.0	8.0	8.0	8.0
Sub Total (PSU/JV)	**200.9**	**203.9**	**223.9**	**247.6**	**252.6**
Private Sector					
RIL-DTA & SEZ, Jamnagar	60.0	60.0	60.0	60.0	60.0
EOL, Jamnagar	38.0	38.0	38.0	38.0	38.0
NOCL, Cuddalore	15.0	15.0	15.0	15.0	15.0
Sub Total (Private)	**113.0**	**113.0**	**113.0**	**113.0**	**113.0**
Total	**313.9**	**316.9**	**336.9**	**360.6**	**365.6**

Source: Report of the Working Group on Petroleum & Natural Gas Sector for 12th Five Year Plan (2012-17)

Table 8.4 : Demand Projections of Petroleum Products for 12th Five Year Plan

(Million metric tonne)

Product	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**CAGR (%)**
LPG	17.0	18.4	19.7	20.9	21.8	6.9
MS	16.1	17.5	19.1	20.8	22.6	8.5
Naphtha	12.4	11.4	11.4	11.0	11.0	-0.2
ATF	6.0	6.6	7.2	7.8	8.5	9.6
SKO	7.9	7.6	7.3	7.0	6.8	-4
HSD	65.0	68.7	72.6	76.9	81.6	5.2
LDO	0.4	0.4	0.4	0.4	0.4	-0.2
Lubes	2.7	2.8	2.9	2.9	3.0	3.7
FO/LSHS	8.0	7.9	7.9	7.9	7.9	-3.5
Bitumen	5.3	5.5	5.7	6.0	6.1	5.1
Pet coke	6.8	7.5	8.3	9.3	10.3	11.7
Others	5.4	6.1	6.1	6.1	6.2	2.4
Total POL	**152.9**	**160.4**	**168.6**	**177.0**	**186.2**	**4.8**

Table 8.5 : Demand Projections of Petroleum Products for 13th Five Year Plan

(Million metric tonne)

Product	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR (%)
LPG	22.6	23.3	23.9	24.3	24.8	2.6
MS	24.5	26.6	28.8	31.1	33.7	8.3
Naphtha	12.5	14.2	14.9	15.4	15.4	6.9
ATF	9.3	10.0	10.8	11.7	12.5	7.9
SKO	6.5	6.4	6.2	6.0	5.8	-3
HSD	86.8	92.1	97.9	104.1	110.8	6.3
LDO	0.4	0.4	0.4	0.4	0.4	0
Lubes	3.1	3.2	3.3	3.4	3.5	2.8
FO/LSHS	7.8	7.8	7.8	7.8	7.8	-0.1
Bitumen	6.3	6.5	6.7	6.9	7.2	3.2
Pet Coke	11.4	12.7	14.0	15.5	17.1	10.7
Others	**6.1**	**6.1**	**6.1**	**6.1**	**6.1**	**-0.3**
Total POL	**197.4**	**209.2**	**220.7**	**232.6**	**245.0**	**5.6**

Source: Report of Sub-Group on Demand Estimates for Petroleum Products- 12th & 13th plan

Table 8.6 : Demand of Natural Gas During 12th Plan (At present level of prices including present supplies)

(Figures in MMSCMD)

	2012-13	2013-14	2014-15	2015-16	2016-17
Power	135	153	171	189	207
Fertilizer	62	110	113	113	113
City Gas	15	19	24	39	46
Industrial	20	20	22	25	27
Petrochemicals / Refineries / Internal Consumption	54	61	67	72	72
Sponge Iron / Steel	7	8	8	8	8
Grand Total Demand	**293**	**371**	**405**	**446**	**473**

Total Projected Natural Gas Availability During 12th Five Year Plan

(Figures in MMSCMD)

	2012-13	2013-14	2014-15	2015-16	2016-17
Domestic Availability	124	149	170	177	209
Imports - LNG	63	87	87	129	150
Total Availability	**187**	**236**	**257**	**306**	**359**

Table 8.7 : Demand of Natural Gas During 13th Plan (At present level of prices including present supplies)

(Figures in MMSCMD)

	2017-18	2018-19	2019-20	2020-21	2021-22
Power	225	243	261	289	307
Fertilizer	113	113	113	113	113
City Gas	47	50	53	55	57
Industrial	28	32	35	37	37
Petrochemicals / Refineries / Internal Consumption	72	76	80	82	82
Sponge Iron / Steel	9	9	10	10	10
Grand Total Demand	**494**	**523**	**552**	**586**	**606**

Total Projected Natural Gas Availability During 13th Five Year Plan

(Figures in MMSCMD)

	2017-18	2018-19	2019-20	2020-21	2021-22
Domestic Availability	216	222	229	236	243
Imports	172	193	215	236	258
Import (Trans Border Pipelines)	30	30	30	30	30
Total Availability	**418**	**445**	**474**	**502**	**531**

Source: Report of the Working Group on Petroleum & Natural Gas Sector for the 12th Five Year Plan (2012-17)

Table 8.8 : LNG Terminals (Existing and upcoming)

Name of Terminal	Promoters	Capacity (MMTPA)	Expected Timelines	Capacity Utilization in % (April to September 2015-16)
Dahej	Petronet LNG Ltd. (PLL)	Existing 10 MMTPA to be increased to 15 MMTPA by 2016	Existing	108.90
Hazira	Hazira LNG Pvt. Ltd. (Shell)	5 MMTPA	Existing	67.00
Dabhol	Ratnagiri Gas & Power Pvt. Ltd. (RGPPL) (JV of GAIL & NTPC)	1.24 MMTPA in phase -1 without break water to be increased to 5.0 MMTPA	Existing	75.00
Kochi	PLL	5 MMTPA	Existing	3.41
Kakinada East Godavari (FSRU)	JV (GAIL + AP Govt+Shell+GDFSuez)	3.5 MMTPA	-	-
Ennore, Tamil Nadu	IOCL	5 MMTPA in Phase - 1 to be increased to 10 MMTPA	-	-
Mangalore, Karnataka	ONGC + BPCL	2.5 MMTPA	-	-
Dhamra	Dhamra LNG Terminal Pvt. Ltd.	5 MMTPA	-	-

Source: LNG operating companies/MoPNG

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Chapter-9

Prices and Taxes

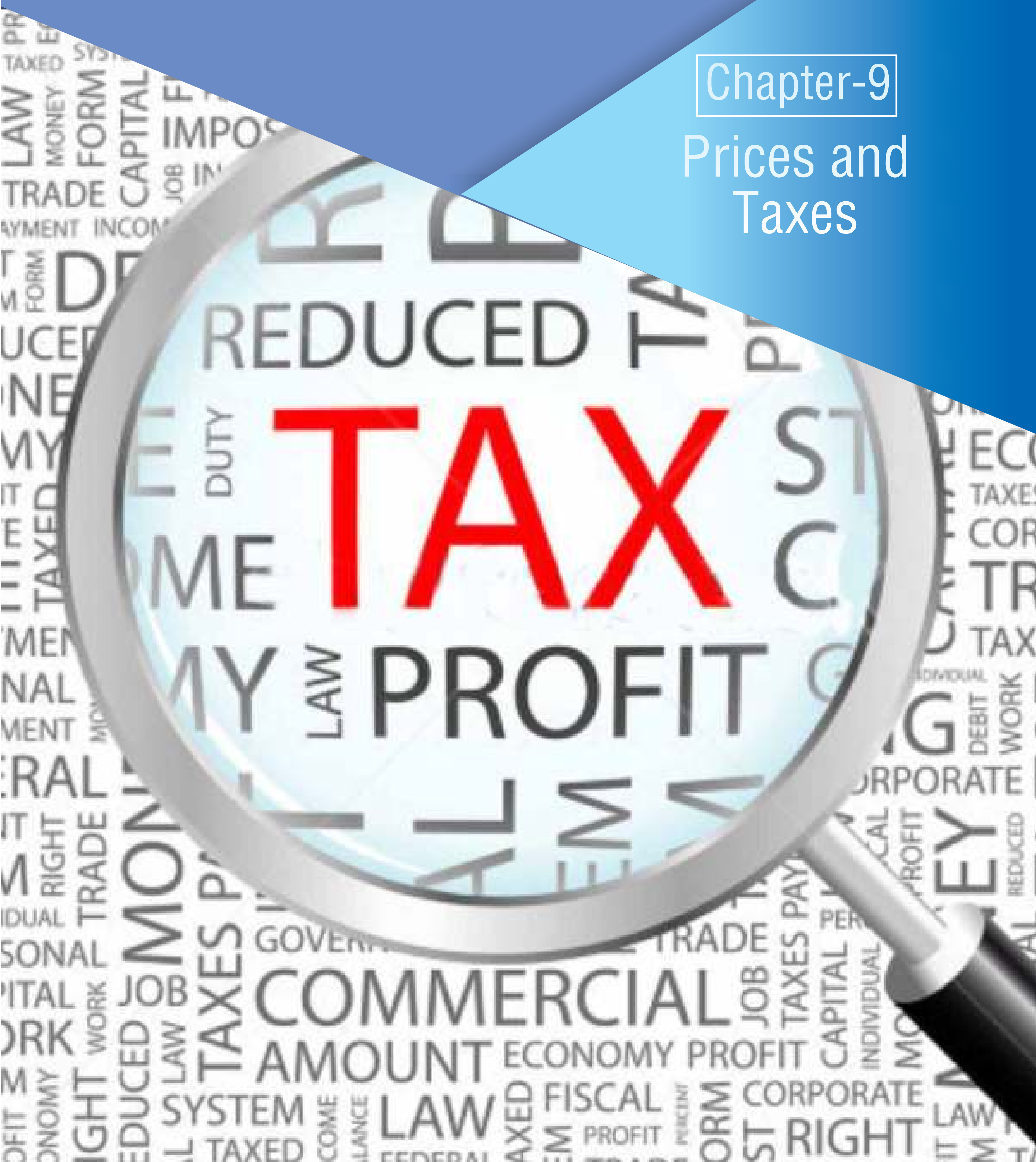


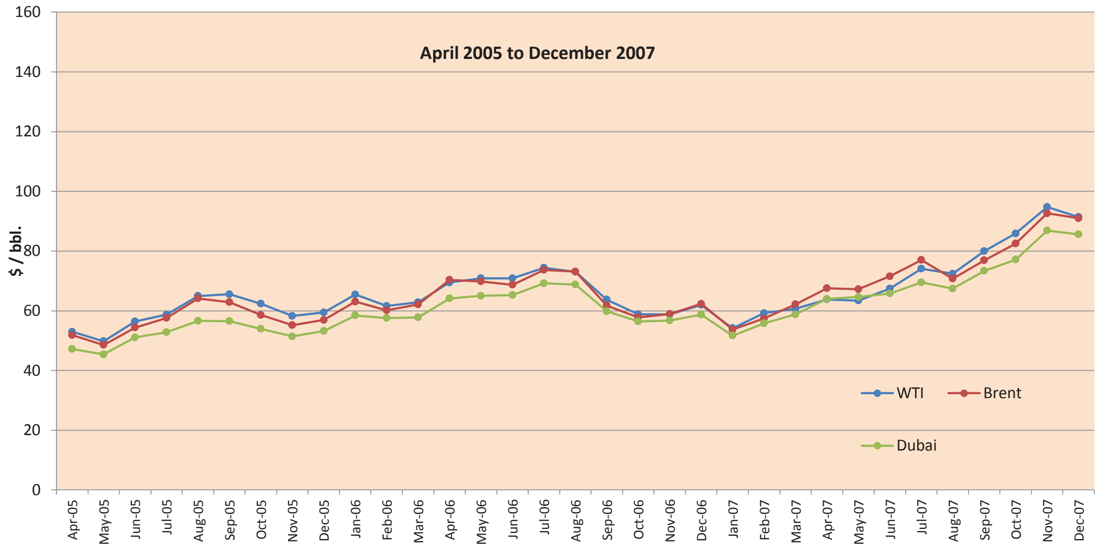
Table 9.1 : Price of Crude Oil in India

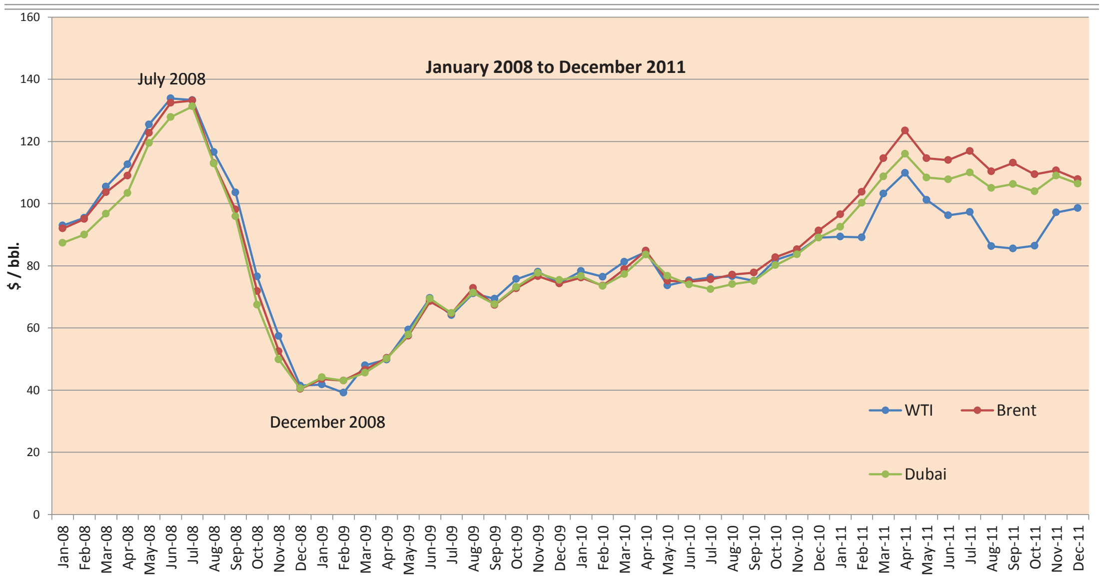
Year	Indian Basket Crude Oil ($/bbl)
2002-03	**26.65**
2003-04	27.97
2004-05	39.21
2005-06	55.72
2006-07	62.46
2007-08	79.25
2008-09	83.57
2009-10	69.76
2010-11	85.09
2011-12	111.89
2012-13	107.97
2013-14	105.52
2014-15	84.16
2015-16 (up to 31.10.2015)	61.32
2015 Onwards Month Wise	
Jan-15	46.59
Feb-15	56.43
Mar-15	55.18
Apr-15	59.07
May-15	63.82
Jun-15	61.75
Jul-15	56.30
Aug-15	47.33
Sep-15	46.10
Oct-15	46.68

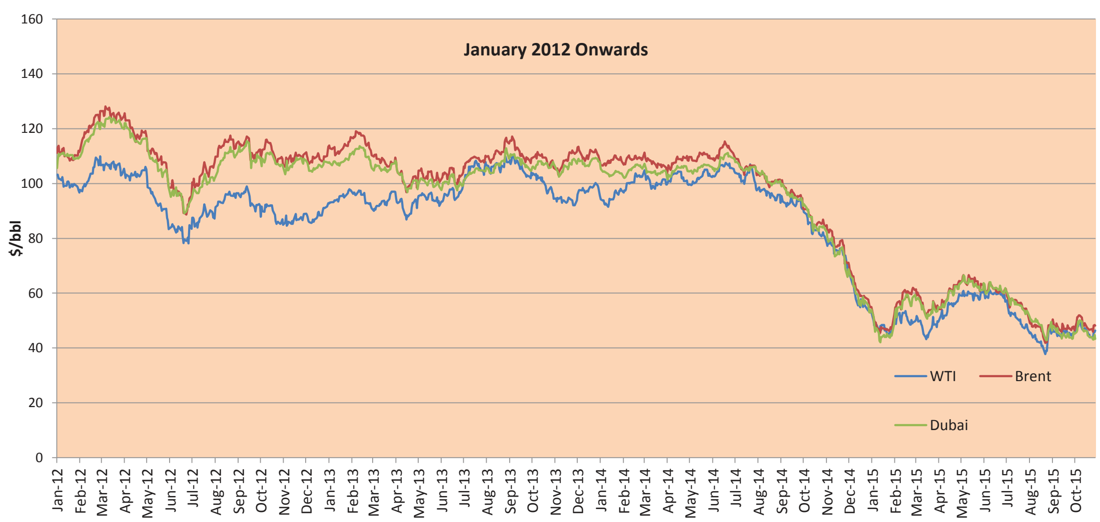
Note:

1. The Indian basket of Crude Oil represents a derived basket comprising of Sour grade (Oman & Dubai average) and Sweet grade (Brent Dated) of Crude Oil processed in Indian refineries in the ratio of 72.28:27.72 during 2014-15.

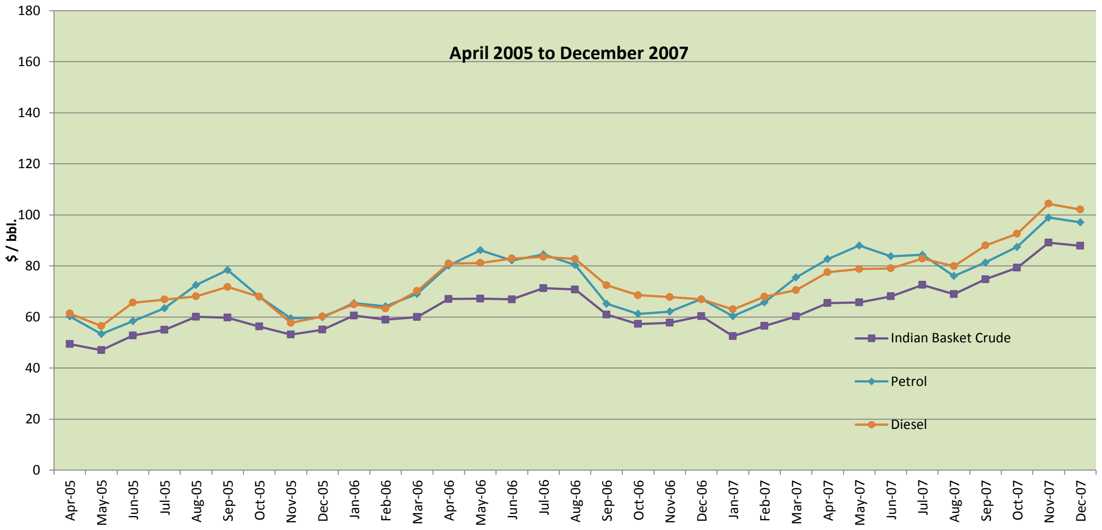
Price of Crude Oil & Petroleum Products in the International Market

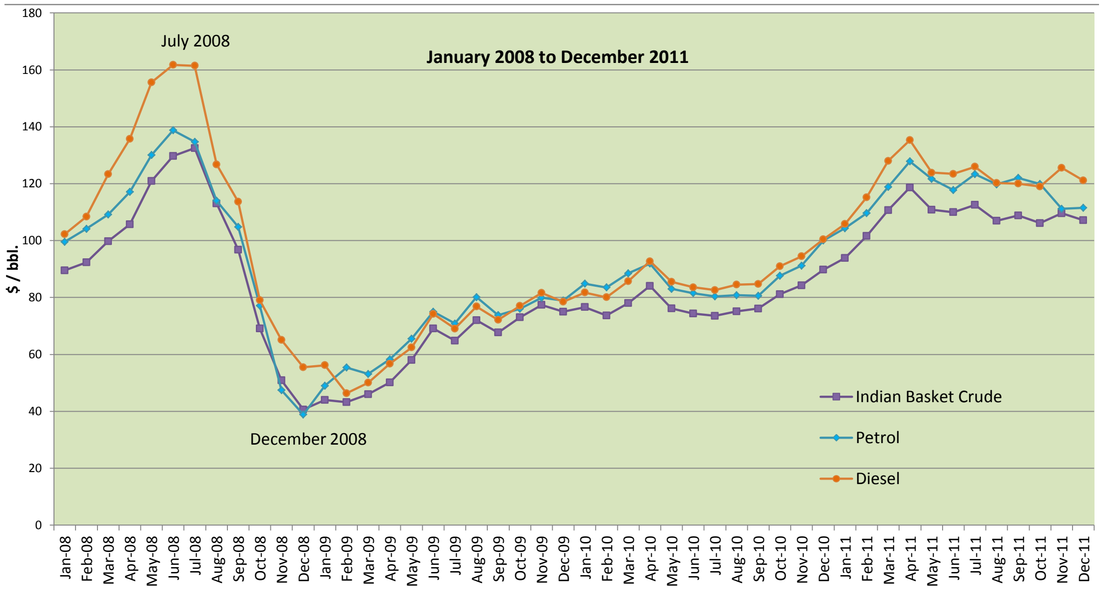






Price of Crude Oil & Petroleum Products in the International Market





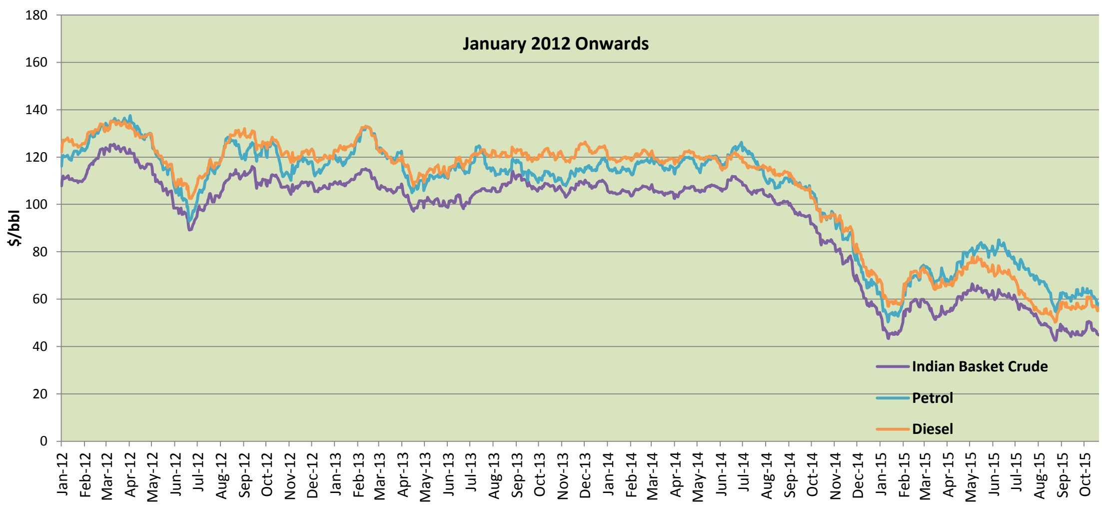


Table 9.2 : Price Build-up of PDS Kerosene at Mumbai

Sl. No.	Elements	Unit	Effective 1st Nov 2015
1*	**FOB Price at Arab Gulf (AG) of Jet / Kero (Kerosene)**	**$/bbl**	**58.81**
2*	Add: Ocean Freight from AG to Indian Ports	$/bbl	1.98
3	C&F (Cost & Freight) Price	$/bbl	60.79
	OR	₹/Litre	24.57
4*	Import Charges (Insurance/Ocean Loss/ LC Charge/Port Dues)	₹/Litre	0.21
5*	Customs Duty	₹/Litre	NIL
6*	**Import Parity Price (at 29.5º C) (Sum of 3 to 5)**	**₹/Litre**	**24.78**
7*	**Refinery Transfer Price (RTP) for PDS Kerosene**** **(Price Paid by the Oil Marketing Companies to Refineries)**	**₹/Litre**	**24.78**
8*	Add : Inland Freight and Delivery Charges	₹/Litre	0.78
9	Add : State Specific Costs	₹/Litre	0.73
10*	Add : Marketing Cost of OMCs	₹/Litre	0.36
11*	Add : Marketing Margin of OMCs	₹/Litre	0.22
12	**Total Cost Price (Sum of 7 to 11)** **-Before Excise Duty, VAT and Wholesaler & Retailer Commission**	**₹/Litre**	**26.86**
13*	Less: Under-recovery to Oil Marketing Companies	₹/Litre	13.31
14	**Price Charged to Dealers (Depot Price) (12-13)** **- Excluding Excise Duty & VAT**	₹/Litre	**13.55**
15	Add : Excise Duty (Including Education Cess)	₹/Litre	0.00
16*	**Add : Wholesaler & Retailer Commission and Other charges fixed by State Government**	**₹/Litre**	**1.24**
17*	Add : VAT (including VAT on Wholesaler & Retailer Commission) applicable for Mumbai	₹/Litre	0.44
18	**Retail Selling Price at Mumbai (Sum of 15 to 17)**	**₹/Litre**	**15.24**

* The explanatory notes are given in Table 9.3.
**Monthly RTP is weighted average of all Indian Pricing Ports.

Table 9.3 : Element Wise Explanation of Price Build-up of PDS Kerosene

Sl. No.	Elements	Description
1	FOB Price	FOB (Free on Board) daily quotes of Jet/Kerosene at Arab Gulf including premium/discount published by Platts and Argus publications are averaged for previous month.
2	Ocean Freight	Ocean freight from Arab Gulf to destination Indian ports as per world scale freight rates adjusted for AFRA.
4	Import Charges	Import charges comprises of Insurance, Ocean Loss, LC Charges & Port dues applicable on import of product.
5	Customs Duty	Customs duty on PDS kerosene is Nil.
6	Import Parity Price (IPP)	IPP represents the price that importers would pay in case of actual import of kerosene at the respective Indian ports. Import Parity Principle is as per the 'PDS Kerosene and LPG (Domestic) Subsidy Scheme, 2002'.
7	Refinery Transfer Price (RTP)	RTP based on Import Parity Price, the price paid by OMCs to refineries.
8	Inland Freight & Delivery Charges	It comprises of average freight from ports to inland locations and delivery charges.
10	Marketing Cost	Marketing Cost & Margin are as fixed in the 'PDS Kerosene and LPG (Domestic) Subsidy Scheme, 2002'.
11	Marketing Margin	
13	Under Recovery to OMCs	Difference between desired price (based on Import Parity) and actual selling price (excluding Excise Duty, VAT , wholesale & retail dealer commission and other charges), represents under-recoveries to OMCs and also includes the erstwhile Fiscal Subsidy amount of ₹0.82/litre.
16	Wholesaler & Retail Dealer Commission and Other charges fixed by State Government	Commission fixed for Wholesale & Retail Dealer and other charges like delivery charges by District authorities / State Government.
17	VAT (Sales Tax)	VAT at applicable rate in respective State. It varies from state to state. Currently in Mumbai, VAT on PDS kerosene is 3.00%.

Table 9.4 : Price Build-up of Domestic LPG at Delhi

Sl. No.	Elements	Unit	Effective 1st Nov 2015
1*	FOB Price at Arab Gulf of LPG	$/MT	353.16
2*	Add: Ocean Freight from AG to Jamnagar	$/MT	29.89
3	C&F (Cost & Freight) Price	$/MT	383.05
	OR	₹/Cylinder	354.29
4*	Import Charges (Insurance/Ocean Loss/ LC Charge/Port Dues)	₹/Cylinder	4.04
5*	Customs Duty	₹/Cylinder	NIL
6*	**Import Parity Price (Sum of 3 to 5)**	**₹/Cylinder**	**358.33**
7*	Refinery Transfer Price (RTP) for Domestic LPG** (Price Paid by the Oil Marketing Companies to Refineries)	₹/Cylinder	358.33
8*	Add: Storage / Distribution Cost & Return on Investment	₹/Cylinder	9.96
9*	Add: Bottling Charges	₹/Cylinder	20.58
10*	Add: Charges for Cylinder Cost	₹/Cylinder	18.11
11*	Add: Inland Freight	₹/Cylinder	33.12
12	**Bottling Plant Cost before Stock loss and Working Capital (Sum of 7 to 11)**	**₹/Cylinder**	**440.09**
13*	Add: Cost of Working Capital	₹/Cylinder	1.98
14	**Cost Price at LPG Bottling Plant (Sum of 12 to 13)**	**₹/Cylinder**	**442.07**
15*	Add: Delivery Charges	₹/Cylinder	10.00
16*	Add: State Specific Costs	₹/Cylinder	Nil
17*	Add : Uncompensated Costs (Import Costs, recovery for Non-revision, rounding-off & delivery charges)	₹/Cylinder	48.26
18	**Market Determined Price (Sum of 14 to 17)**	**₹/Cylinder**	**500.33**
19*	Add : VAT(including VAT on Distributor Commission) applicable for Delhi	₹/Cylinder	0.00
20*	Add : Distributor Commission	₹/Cylinder	44.88
21	**Retail Selling Price (Sum of 18 to 20)**	**₹/Cylinder**	**545.21**
22	**Retail Selling Price at Delhi (Rounded)**	**₹/Cylinder**	**545.00**
23*	**Less: Cash Compensation to Consumer under DBTL (including impact of uncompensated cost to OMCs)**	**₹/Cylinder**	**127.18**
24	**Effective Cost to Consumer after Subsidy (22-23)**	**₹/Cylinder**	**417.82**

* The explanatory notes are given in Table 9.5.
**Monthly RTP is weighted average of all Indian Pricing Ports.

Table 9.5 : Element Wise Explanation of Price Build-up of Domestic LPG

Sl. No.	Elements	Description
1	FOB Price	FOB (Free on Board) of LPG is weighted average of Saudi Aramco contract price (CP) for Butane (60%) & Propane (40%) for previous month and also includes daily quotes of premium/discount (published by Platts Gaswire) averaged for previous month.
2	Ocean Freight	Ocean freight from Arab Gulf to destination Indian port (i.e. Jamnagar) based on charter hire rates obtained from Clarkson Shipping Intelligence weekly.
4	Import Charges	Import charges comprises of Insurance, Ocean Loss, LC Charges & Port dues applicable on import of LPG.
5	Customs Duty	Customs duty on domestic LPG is Nil.
6	Import Parity Price (IPP)	IPP represents the price that importers would pay in case of actual import of product at the respective Indian ports. Import Parity Principle is as envisaged in the 'PAHAL (DBTL) Scheme, 2014'.
7	Refinery Transfer Price (RTP)	RTP is based on Import Parity Price. This is the price paid by the Oil Marketing Companies to domestic refineries for purchase of finished petroleum products at refinery gate.
8	Storage/distribution cost & return on Investment	Storage/distribution cost & return on Investment as fixed under notified 'PAHAL (DBTL) Scheme, 2014'.
9	Bottling Charges	The cost incurred towards filling LPG in 14.2 Kg. cylinders as per notified 'PAHAL (DBTL) Scheme, 2014'.
10	Charges for Cylinder Cost	
11	Inland Freight	It comprises of freight from port to inland locations i.e. Bottling Plant.
13	Cost of Working Capital	Interest on working capital for 18 days stock holding at SBI prime lending rate (PLR) as fixed under notified 'PAHAL (DBTL) Scheme, 2014'.
15	Delivery Charges	It comprises of freight from Bottling Plant to Distributor.
16	State Specific Costs (SSC)	In order to neutralise the under-recoveries to the Oil Companies caused by various irrecoverable/non-recoverable Taxes and Levies of State/Union Territories/Municipal Corporations, a State Specific Surcharge/Cost is considered in the Selling Prices of petroleum products. In case of Delhi it is Nil.
17	Uncompensated Costs (Import Costs, recovery for Non-revision, rounding-off & delivery charges)	In the price buildup Oil Marketing Companies are charging consumers on account of Import Costs, Recovery for Non-revision in prices, Rounding-off & differential delivery charges of ₹6/cyl. All these costs are not compensated to OMCs as per the PAHAL (DBTL) scheme.
19	VAT (Sales Tax)	VAT at applicable rate in respective States. It varies from state to state (up to a maximum of 5% as Domestic LPG is 'Declared Goods' under CST Act). Currently VAT at Delhi is Nil.
20	Distributor Commission	LPG distributor commission ₹44.88/Cylinder (effective 23-Oct-2014) is as approved by MoP&NG.
23	Cash Compensation to Consumer under DBTL (including impact of uncompensated cost to OMCs)	Under DBTL Scheme, the difference between the price of Dom. Subsidized & Non-Subsidized LPG is being transferred to bank account of Consumers by OMCs. This also includes the uncompensated amount which is borne by the OMCs.

Table 9.6 : Summarised Build-up of Retail Selling Price of Petrol at Delhi

(w.e.f. 7th Nov 2015)

Particulars	₹/Litre*
Refinery Transfer Price (RTP) on landed cost basis for BS IV Petrol (Price Paid by the Oil Marketing Companies to Refineries)	**24.75**
Price Charged to Dealers (excluding Excise Duty and VAT)	27.24
Add : Specific Excise Duty @ ₹19.06/Ltr	19.06
Add : Dealer Commission	2.26
Add : VAT (including VAT on Dealer Commission) applicable for Delhi @ 25%	12.14
Retail Selling Price at Delhi- Rounded off	**60.70**

*As per IOCL.

Table 9.7 : Summarised Build-up of Retail Selling Price of Diesel at Delhi

(w.e.f. 7th Nov 2015)

Particulars	₹/Litre*
Refinery Transfer Price (RTP) on landed cost basis for BS IV Diesel (Price Paid by the Oil Marketing Companies to Refineries)	**24.86**
Price Charged to Dealers (excluding Excise Duty and VAT)	27.05
Add : Specific Excise Duty @ ₹10.66/Ltr	10.66
Add : Dealer Commission	1.43
Add : VAT (including VAT on Dealer Commission) applicable for Delhi @ 16.6% & Air ambience charges ₹250/KL	6.79
Retail Selling Price at Delhi- Rounded off	**45.93**

*As per IOCL.

Table 9.8 : Summarised Build-up of Retail Selling Price of PDS Kerosene at Mumbai

(w.e.f. 1st Nov 2015)

Particulars	₹/Litre
Refinery Transfer Price (RTP) for PDS Kerosene	**24.78**
Total Desired Price -Before VAT and Dealers Commission	26.87
Less: Under-recovery to Oil Marketing Companies	13.31
Price Charged to Dealers (Depot Price) - Excluding VAT and Dealer commission	13.56
Add : Wholesaler & Retailer Commission and Other charges fixed by State Government	1.24
Add : VAT (including VAT on Wholesaler & Retailer Commission) applicable for Mumbai	0.44
Retail Selling Price at Mumbai	**15.24**

Table 9.9 : Summarised Build-up of Retail Selling Price of Domestic LPG at Delhi

(w.e.f. 1st Nov 2015)

Particulars	₹/Cylinder
Refinery Transfer Price (RTP) for Domestic LPG	358.33
Price Charged to Distributor (Bottling Plant Price)	500.33
Add : Distributor's Commission	44.88
Add : VAT (including VAT on distributor's Commission) applicable for Delhi	Nil
Retail Selling Price at Delhi (Rounded)	**545.00**
Less: Cash Compensation to Consumer under DBTL (including impact of uncompensated cost to OMCs)	127.18
Effective Cost to Consumer after Subsidy	**417.82**

Share of Taxes in Retail Selling Price of Petroleum Products

Table 9.10 : Share of Taxes in Petrol RSP effective 07.11.2015

Particulars	₹/Litre	Share in RSP
Price Component Realized	26.73	44.0%
Customs Duty	0.50	
Excise Duty	19.06	
Total Central Taxes	**19.56**	**32.2%**
Price Charged to Customer - Depot Price	46.29	
VAT (Including VAT on dealer commission)	12.14	
Total State Taxes	**12.14**	20.0%
Total Taxes	**31.70**	52.2%
Dealer Commission	2.27	3.7%
RSP per Litre (Rounded up)	**60.70**	100.0%

Table 9.11 : Share of Taxes in Diesel RSP effective 07.11.2015

Particulars	₹/Litre	Share in RSP
Price Component Realized	26.55	57.8%
Customs Duty	0.50	
Excise Duty	10.66	
Total Central Taxes	**11.16**	**24.3%**
Price Charged to Customer - Depot Price	37.71	
VAT (Including VAT on dealer commission)	6.79	
Total State Taxes	**6.79**	14.8%
Total Taxes	**17.95**	39.1%
Dealer Commission	1.43	3.1%
RSP per Litre (Rounded up)	**45.93**	100.0%

Table 9.12 : Break-up of current Excise Duty on Petrol & Diesel effective 07.11.2015

(₹/Litre)

Product	Petrol	Diesel
Basic Duty	7.06	4.66
Additional Excise Duty (Road Cess)	6.00	6.00
Special Additional Excise Duty	6.00	Nil
Total duty	**19.06**	**10.66**

Note:
1. Petrol and Diesel price is deregulated. The price break up is as per IOCL at Delhi.
2. Customs Duty on Petrol and Diesel as per November 2015, 1st Fortnight RGP.

Share of Taxes in Retail Selling Price of Petroleum Products

Table 9.13 : Share of Taxes in PDS Kerosene RSP Effective 01.11.2015 (at Mumbai)

Particulars	₹/Litre	Share in RSP
Total Price Before Government Levies	26.87	
Less : Under Recovery absorbed by OMCs	13.31	
Price Component Realized	13.56	89.0%
Customs Duty	0.00	
Excise Duty	0.00	
Total Central Taxes	**0.00**	
Total	13.56	
VAT (Including VAT on wholesaler and Retailer commission)	0.44	
Total State Taxes	**0.44**	**3.0%**
Total Taxes	**0.44**	**3.0%**
Price Charged to Customer - Depot Price	14.00	
Wholesaler and Retailer Commission	1.24	8.0%
RSP per Litre (Rounded up)	**15.24**	**100.00%**

Table 9.14 : Share of Taxes in Domestic LPG RSP Effective 01.11.2015 (at Delhi)

Particulars	₹/Cylinder	Share in RSP
Total Price before Government Levies	500.33	
Less : Under Recovery incurred by OMCs	0	
Price Component realized	500.33	90%
Customs Duty	0	
Excise Duty	0	
Total Central Taxes	**0**	**0%**
Total	500.33	
VAT (Incl. VAT on Distributor's commission)	0	
Total State Taxes	**0**	**0%**
Total Taxes	**0**	**0%**
Distributor's Commission	44.88	10%
RSP per cylinder (Rounded)	**545.00**	**100%**
Less: Cash Compensation under DBTL Scheme by Govt.	**127.18**	
Effective Price to Consumer after DBTL Subsidy	**417.82**	

Table 9.15 : Weightage of Petroleum Products in Wholesale Price Index (WPI)

Product	Weight in %
High Speed Diesel	4.67
Petrol	1.09
LPG	0.91
Naphtha	0.79
Kerosene	0.74
Furnace Oil	0.47
Aviation Turbine Fuel	0.26
Lubricants	0.17
Bitumen	0.16
Light Diesel Oil	0.12
Total	**9.36**

Source: Ministry of Commerce & Industry

Table 9.16 : Impact of Increase in Retail Selling Price of Major Petroleum Products on Inflation

Product	Increase in RSP	Increase in Inflation (WPI Index)
Petrol	₹ 1/ Litre	0.02%
Diesel	₹ 1/ Litre	0.07%
PDS Kerosene	₹ 1/ Litre	0.04%
Domestic LPG	₹ 10/ Cylinder	0.02%

Note: Based on Sep 2015 WPI Index.

Important Terms in Pricing of Petroleum Products

1. **Import Parity Price (IPP) -** IPP represents the price that importers would pay in case of actual import of product at the respective Indian ports. This includes the following elements:
    i. FOB Price
    ii. Ocean freight
    iii. Insurance
    iv. Customs duty
    v. Port dues etc.
2. **Export Parity Price (EPP) -** EPP represents the price which oil companies would realize on export of petroleum products. This includes the following elements:
    i. FOB Price
    ii. Advance license benefit (for duty free import of crude oil pursuant to export of refined products
3. **Trade Parity Price (TPP) -** TPP is weighted average price of IPP and EPP with the weights of 80 and 20 respectively.
4. **Refinery Gate Price / Refinery Transfer Price (RGP/RTP) -** This is the price paid by the Oil Marketing Companies to domestic refineries for purchase of finished petroleum products at refinery gate.
6. **Retail Selling Price (RSP) -** This is the final price, inclusive of all duties and taxes, charged to the consumers.

Dealer's / Distributor's Commission on Petroleum Products

Table 9.17 : Dealer's Commission on Petrol & Diesel

(₹/KL)

Effective Date	Petrol	Diesel
As on 01-Apr-04	707.00	425.00
21-Jun-05	778.00	467.00
01-Aug-05	848.00	509.00
01-Mar-07	894.00	529.00
16-May-07	1,024.00	600.00
23-May-08	1,052.00	631.00
27-Oct-09	1,125.00	673.00
07-Sep-10	1,218.00	757.00
01-Jul-11	1,499.00	912.00
27-Oct-12	1,794.00	1,089.00
21-Dec-13	₹ 1390.15/KL + 0.883% of Product Billable Price	1,186.00
23-Oct-14	₹ 1499.37/KL + 0.887% of Product Billable Price	₹ 1116.09/KL + 0.29% of Product Billable Price
01-Aug-15	₹ 1749.86/KL + 0.883% of Product Billable Price*	₹ 1301.70/KL + 0.286% of Product Billable Price*

*The current dealer commission on Petrol is ₹ 2261.28/ KL and on Diesel is ₹ 1428.33/KL effective 1.11.2015 at Delhi (as per HPCL).

Table 9.18: Distributor's Commission on Domestic LPG

(₹/ Cylinder)

Effective date	14.2 Kg. Cyl.	Additional commission for sale at market determined price (14.2 KG cyl.)	5 Kg. Cyl.
As on 01-April-04	16.71	NA	8.60
01-Mar-07	19.05	NA	9.81
04-Jun-08	20.54	NA	10.58
30-Jun-09	21.94	NA	11.30
01-Jul-11	25.83	NA	13.30
07-Oct-12	37.25	0.75	18.63
11-Dec-13	40.71	0.75	20.36
23-Oct-14	44.06	0.82	22.03

Table 9.19 : Wholesale Dealer's Commission on PDS Kerosene

(₹/ KL)

Effective date	With Form XV	Other than Form XV
As on 01-April-04	204.00	161.00
01-Mar-07	243.00	200.00
24-May-08	255.00	212.00
07-Jul-09	263.00	220.00
07-Sep-10	275.00	232.00
28-Dec-12	438.24	377.73
21-Oct-14	536.09	475.58

Table 9.20 : Revisions in Retail Selling Price (RSP) of Petroleum Products at Delhi since 01.04.2006

Date	Petrol	Diesel	PDS Kerosene	Domestic LPG	Reason
	(₹/Litre)			(₹/14.2 Kg Cyl.)	
01.04.2006	43.51	30.47	9.08	294.75	RSP as on 1.4.2006
25.05.2006			9.09		Increase in siding & shunting charges/ Dealer commission
06.06.2006	47.51	32.47			Increase in prices
21.06.2006	46.85	32.25			Tax rebate on VAT in Delhi
30.11.2006	44.85	31.25			Reduction in prices
16.02.2007	42.85	30.25			Reduction in prices
06.06.2007	43.52	30.48			Tax rebate on VAT in Delhi withdrawn
27.09.2007			9.16		Increase in Siding & shunting charges/ Dealer commission
08.02.2008		30.76			Pollution cess in Delhi implemented
15.02.2008	45.52	31.76			Increase in prices
24.05.2008	45.56	31.80			Revision in Dealers commission
05.06.2008	50.56	34.80		346.30	Increase in prices
09.06.2008				304.70	Subsidy by Delhi Govt. on LPG
18.07.2008	50.62	34.86			Increase in Siding & shunting charges
12.09.2008			9.22		Increase in Siding & shunting charges/ Dealer commission
06.12.2008	45.62	32.86			Reduction in prices
29.01.2009	40.62	30.86		279.70	Reduction in prices
02.07.2009	44.63	32.87		281.20	Increase in prices (Petrol & Diesel)/ Increase in LPG Distribution commission
08.09.2009			9.23		Revision in Dealers commission
27.10.2009	44.72	32.92			Revision in Dealers commission
13.01.2010			9.32		Increase in Siding & shunting charges
27.02.2010	47.43	35.47			Change in Custom/ Excise duty
01.04.2010	47.93	38.10		310.35	Introduction of Euro IV fuels/ Subsidy removal in Dom. LPG in Delhi
26.06.2010	51.43	40.10	12.32	345.35	Increase in prices
01.07.2010	51.45	40.12			Increase in Siding & shunting charges
20.07.2010		37.62			VAT reduction in Delhi
08.09.2010	51.56	37.71			Revision in Dealers commission
21.09.2010	51.83				Increase in price
17.10.2010	52.55				Increase in price
02.11.2010	52.59	37.75			Increase in Siding & shunting charges
09.11.2010	52.91				Increase in price
16.12.2010	55.87				Increase in price
15.01.2011	58.37				Increase in price
18.01.2011			12.73		Increase in Transportation charges
15.05.2011	63.37				Increase in price
25.06.2011		41.12	14.83	395.35	Increase in prices
01.07.2011	63.70	41.29		399.00	Increase in Siding & shunting charges/ Dealer commission
16.09.2011	66.84				Increase in price
01.10.2011		40.91			Rebate of Rs. 0.38 per Litre in VAT on diesel in Delhi.
04.11.2011	68.64				Increase in price
16.11.2011	66.42				Reduction in price
01.12.2011	65.64				Reduction in price
24.05.2012	73.18				Increase in price
03.06.2012	71.16				Reduction in price
18.06.2012	70.24	41.29			Rebate(Petrol) / Removal of rebate (Diesel) in VAT at Delhi
29.06.2012	67.78				Reduction in price
24.07.2012	68.48				Increase in price
01.08.2012	68.46	41.32			Revision in Siding/ shunting charges
14.09.2012		46.95			Increase in Excise Duty & price

Table 9.20 Continued...

Date	Petrol	Diesel	PDS Kerosene	Domestic LPG		Reason
				Subsidized	Non-Subsized	
	(₹/Litre)			(₹/14.2 Kg Cyl.)		
18.09.2012					756.50	price notified for non-subsidized domestic LPG
01.10.2012					883.50	Increase in price
03.10.2012			14.79			Revision in siding charges
07.10.2012				410.50	895.50	Increase in LPG distributor commission
09.10.2012	67.90					Reduction in price
27.10.2012	68.19	47.15				Increase in dealer commission
01.11.2012					922.50	Increase in price
02.11.2012					895.50	Reduction in price
16.11.2012	67.24					Reduction in price
16.01.2013	67.56					Removal of rebate on VAT in Delhi
18.01.2013	67.26	47.65			942.00	Increase (Diesel & Non subsidized domestic LPG)/ Reduction (Petrol) in prices
28.01.2013			14.96			Increase in dealer commission
16.02.2013	69.06	48.16				Increase in price
01.03.2013					904.50	Reduction in price
02.03.2013	70.74					Increase in price
16.03.2013	68.34					Reduction in price
23.03.2013		48.67				Increase in price
01.04.2013	68.31	48.63			901.50	Revision in siding charges / Reduction in price of non -subsidized domestic LPG
02.04.2013	67.29					Reduction in price
16.04.2013	66.09	48.67				Reduction in Petrol price/ Increase in delivery charges of Diesel
01.05.2013	63.09				847.00	Reduction in price
11.05.2013		49.69				Increase in price
01.06.2013	63.99	50.25			802.00	Increase (petrol and diesel) / reduction (non-sub. Dom LPG) in prices
16.06.2013	66.39					Increase in price
29.06.2013	68.58					Increase in price& delivery charges of Petrol
01.07.2013		50.26			832.00	Increase in Delivery charges of HSD / Increase in price of Non Sub. Domestic LPG
02.07.2013		50.84				Increase in price
15.07.2013	70.44					Increase in price
01.08.2013	71.28	51.4			875.00	Increase in price
01.09.2013	74.1	51.97			932.50	Increase in price
14.09.2013	76.06					Increase in price
01.10.2013	72.40	52.54			1,004.00	Increase (Diesel & Non Sub. Domestic LPG)/ Reduction (petrol) in price
01.11.2013	71.02	53.10			954.50	Increase (Diesel) / Reduction (petrol & Non Sub. Domestic LPG) in price
01.12.2013		53.67			1,017.50	Increase in prices
11.12.2013				414.00	1,021.00	Increase in distributor commission of LPG
21.12.2013	71.52	53.78				Increase in price of Petrol & Increase in Dealer commission on Petrol and Diesel

Table 9.20 Continued...

Date	Petrol	Diesel	PDS Kerosene	Domestic LPG		Reason
				Subsidized	Non-Subsized	
	(₹/Litre)			(₹/14.2 Kg Cyl.)		
18.09.2012					756.50	price notified for non-subsidized domestic LPG
01.10.2012					883.50	Increase in price
03.10.2012			14.79			Revision in siding charges
07.10.2012				410.50	895.50	Increase in LPG distributor commission
09.10.2012	67.90					Reduction in price
27.10.2012	68.19	47.15				Increase in dealer commission
01.11.2012					922.50	Increase in price
02.11.2012					895.50	Reduction in price
16.11.2012	67.24					Reduction in price
16.01.2013	67.56					Removal of rebate on VAT in Delhi
18.01.2013	67.26	47.65			942.00	Increase (Diesel & Non subsidized domestic LPG)/ Reduction (Petrol) in prices
28.01.2013			14.96			Increase in dealer commission
16.02.2013	69.06	48.16				Increase in price
01.03.2013					904.50	Reduction in price
02.03.2013	70.74					Increase in price
16.03.2013	68.34					Reduction in price
23.03.2013		48.67				Increase in price
01.04.2013	68.31	48.63			901.50	Revision in siding charges / Reduction in price of non -subsidized domestic LPG
02.04.2013	67.29					Reduction in price
16.04.2013	66.09	48.67				Reduction in Petrol price/ Increase in delivery charges of Diesel
01.05.2013	63.09				847.00	Reduction in price
11.05.2013		49.69				Increase in price
01.06.2013	63.99	50.25			802.00	Increase (petrol and diesel) / reduction (non-sub. Dom LPG) in prices
16.06.2013	66.39					Increase in price
29.06.2013	68.58					Increase in price& delivery charges of Petrol
01.07.2013		50.26			832.00	Increase in Delivery charges of HSD / Increase in price of Non Sub. Domestic LPG
02.07.2013		50.84				Increase in price
15.07.2013	70.44					Increase in price
01.08.2013	71.28	51.4			875.00	Increase in price
01.09.2013	74.1	51.97			932.50	Increase in price
14.09.2013	76.06					Increase in price
01.10.2013	72.40	52.54			1,004.00	Increase (Diesel & Non Sub. Domestic LPG)/ Reduction (petrol) in price
01.11.2013	71.02	53.10			954.50	Increase (Diesel) / Reduction (petrol & Non Sub. Domestic LPG) in price
01.12.2013		53.67			1,017.50	Increase in prices
11.12.2013				414.00	1,021.00	Increase in distributor commission of LPG
21.12.2013	71.52	53.78				Increase in price of Petrol & Increase in Dealer commission on Petrol and Diesel

Table 9.20 Continued...

Date	Petrol	Diesel	PDS Kerosene	Domestic LPG		Reason
				RSP	Effective Price after DBTL Subsidy#	
	(₹/Litre)			(₹/14.2 Kg Cyl.)		
01.04.2015	60.00	48.50		621.00	417.82	Increase (Non-Subsidized Domestic LPG)/ Reduction (MS & HSD) in prices
16.04.2015	59.20	47.20				Reduction in prices
1.05.2015	63.16	49.57	15.24	616.00		Increase (MS, HSD & PDS SKO) / Reduction (Domestic LPG) in prices
16.05.2015	66.29	52.28				Increase in prices
01.06.2015				626.50		Increase in prices
16.06.2015	66.93	50.93				Increase (MS) / Reduction (HSD) in prices
01.07.2015	66.62	50.22		608.50		Reduction in prices
16.07.2015	66.90	49.72				Reduction in price & increase in VAT rates at Delhi
01.08.2015	64.47	46.12		585.00		Reduction in prices
15.08.2015	63.20	44.95				Reduction in prices
01.09.2015	61.20	44.45		559.50		Reduction in prices
01.10.2015		44.95		517.50		Increase (Diesel)/ Reduction (Domestic LPG) in price
16.10.2015		45.90				Increase in prices
01.11.2015	60.70	45.93		545.00		Decrease (Petrol) / Increase (Dom. LPG) in price / Increase in delivery charges of Petrol & Diesel
	60.70	**45.93**	**15.24***	**545.00**	**417.82**	**RSP as on 1.11.2015**

Note:
Price of Petrol (26.6.2010 onwards), Non-Subsidized Domestic LPG (18.9.2012 onwards) and Diesel (19.10.2014 onwards) as per IOCL. Since quota of PDS Kerosene is NIL at Delhi, price of PDS Kerosene 01.11.2014 onwards ia at Mumbai.
The effective price to consumers is after DBTL Subsidy paid by the Govt.

Table 9.21 : Selling Price of Diesel for Bulk Consumers in Major Cities

(₹/Litre)

Date	Delhi	Kolkata	Mumbai	Chennai
18.01.2013	56.88	61.30	64.11	60.85
01.02.2013	56.95	61.37	64.19	60.92
16.02.2013	58.57	63.06	65.98	62.68
01.03.2013	59.73	64.27	67.25	63.93
16.03.2013	56.79	61.20	64.01	60.75
01.04.2013	54.84	59.51	61.95	58.69
16.04.2013	54.77	59.46	61.88	58.62
01.05.2013	51.81	56.37	58.61	55.42
11.05.2013	51.81	56.37	58.61	55.42
16.05.2013	52.76	57.36	59.66	56.44
23.05.2013	52.76	57.36	60.79	56.44
01.06.2013	54.61	59.28	62.83	58.44
16.06.2013	56.17	60.91	64.55	60.12
01.07.2013	58.78	63.63	66.62	62.95
02.07.2013	58.79	63.62	66.61	62.94
16.07.2013	60.40	65.30	68.39	64.68
01.08.2013	60.72	65.63	68.75	65.03
16.08.2013	61.74	66.69	69.86	66.13
01.09.2013	64.45	69.50	72.85	69.05
16.09.2013	67.45	72.63	76.17	72.30
01.10.2013	63.50	68.50	71.78	68.05
16.10.2013	63.25	68.24	71.50	67.78
01.11.2013	62.97	67.95	71.19	67.48
16.11.2013	63.06	68.04	71.29	67.57
01.12.2013	63.86	68.88	72.18	68.44
16.12.2013	64.36	69.39	72.72	68.98
01.01.2014	63.51	68.51	71.79	68.06
04.01.2014	63.51	68.51	71.79	68.06
05.01.2014	63.51	68.66	72.97	68.07
16.01.2014	62.61	67.72	71.97	67.10
01.02.2014	61.95	67.03	71.25	66.39
16.02.2014	62.97	68.09	72.37	67.49
01.03.2014	63.63	68.78	73.10	68.20
16.03.2014	62.33	67.43	71.67	66.80
01.04.2014	60.89	65.93	70.08	65.25
16.04.2014	60.41	65.44	69.56	64.73
01.05.2014	61.83	66.91	71.12	66.26
16.05.2014	60.38	65.41	69.52	64.70
01.06.2014	59.18	64.16	68.20	63.40
16.06.2014	57.87	62.80	66.76	61.99
01.07.2014	60.41	65.52	69.10	64.70
16.07.2014	59.32	64.39	67.90	63.53
01.08.2014	58.60	63.64	67.10	62.75
16.08.2014	59.12	64.18	67.68	63.31
31.08.2014	59.12	64.18	67.68	63.31
01.09.2014	57.80	62.81	66.23	61.89
16.09.2014	57.37	62.36	65.75	61.42
01.10.2014	57.37	62.36	65.75	61.42
19.10.2014	54.00	58.85	62.03	57.78
01.11.2014	51.94	56.70	59.74	55.56
16.11.2014	51.94	56.70	59.74	55.56
01.12.2014	51.10	55.83	58.83	54.66
16.12.2014	49.13	53.78	56.65	52.53
01.01.2015	49.13	53.78	56.65	52.53
16.01.2015	49.13	53.78	56.65	52.53
17.01.2015	46.88	51.77	54.17	50.10
01.02.2015	46.88	51.77	54.17	50.10
04.02.2015	44.64	49.77	51.69	47.68
16.02.2015	45.25	50.32	52.37	48.34
01.03.2015	48.31	53.03	55.73	51.63
16.03.2015	48.31	53.03	55.73	51.63
01.04.2015	48.31	53.03	55.73	51.63
02.04.2015	47.13	52.01	54.44	50.36
16.04.2015	45.83	50.86	53.01	48.97
01.05.2015	48.20	52.94	55.61	51.52
16.05.2015	50.90	55.62	58.59	54.43
01.06.2015	50.90	55.62	58.59	54.43
16.06.2015	49.55	54.22	57.11	52.98
01.07.2015	48.84	53.52	56.32	52.21
16.07.2015	48.29	51.53	53.84	49.78
01.08.2015	44.50	48.26	49.80	45.82
15.08.2015	43.33	47.26	48.56	44.61
01.09.2015	42.83	46.84	48.03	44.09
16.09.2015	42.83	46.84	48.03	44.09
01.10.2015	43.33	47.26	50.56	44.61
16.10.2015	44.27	48.07	51.57	45.59
01.11.2015	44.30	48.10	51.60	45.62

Source: HPCL

Table 9.22 : Retail Selling Price in Neighbouring Countries

(Indian Rupees (₹)/ Litre/ Cyl.)

Country	Petrol	Diesel	PDS Kerosene	Domestic LPG
India	60.70	45.93	15.24	417.82*
Pakistan	47.38	54.57	38.33	1,042.51
Bangladesh	79.99	56.52	56.52	664.25
Sri Lanka	56.77	46.13	31.84	821.09
Nepal	66.57	52.63	52.63	594.90

*Effective price after DBTL subsidy

Table 9.23 : Retail Selling Price & % of Taxes in Retail Selling Price

(Indian Rupees (₹)/ Litre/ Cyl.)

Country	Petrol				Diesel			
	RSP	Ex-Tax Price	Taxes	% of Taxes	RSP	Ex - Tax Price	Taxes	% of Taxes
India (Delhi)	60.70	29.00	31.70	52%	45.93	27.98	17.95	39%
Pakistan	47.38	36.25	11.13	23%	54.57	39.98	14.59	27%
Bangladesh	79.99	NA	NA	NA	56.52	NA	NA	NA
Sri Lanka	56.77	44.59	12.18	21%	46.13	41.48	3.87	9%
Nepal	66.57	45.48	21.09	32%	52.63	43.46	9.17	17%

Note:

1. Prices for India as of 1st / 7th November 2015. Petrol & Diesel price as per IOCL. SKO price at Mumbai, other product at Delhi.
2. Prices for neighboring countries as on 1.8.2015 from M/s Indian Oil IT Statement for August 2015. % of tax in Nepal as per information given on NOC website for 1 August 2015.% of taxes in Pakistan as per breakup given in Shell Pakistan website for 22.1.2013 (MS) and Pakistan State oil for 1.8.2015 (HSD). % of tax in Sri Lanka as per calculation given by IOC as on 30.10.2011.
   NA- Not available

Retail Selling Price & % of Taxes in Retail Selling Price in Developed Countries vis-a-vis India

Table 9.24 : Price and Taxes in Indian Rupees (₹) / Litre

Country	Petrol				Diesel			
	RSP	Ex-Tax Price	Taxes	% of Taxes	RSP	Ex - Tax Price	Taxes	% of Taxes
India	60.70	29.00	31.70	52%	45.93	27.98	17.95	39%
France	96.72	33.73	63.00	65%	68.42	32.69	35.73	52%
Germany	100.96	36.18	64.78	64%	71.09	36.18	34.92	49%
Italy	110.76	36.70	74.06	67%	82.76	36.92	45.84	55%
Spain	88.11	38.48	49.62	56%	66.19	38.85	27.34	41%
UK	112.14	34.61	77.54	69%	93.27	34.40	58.86	63%
Japan	74.59	37.96	36.63	49%	62.73	40.27	22.45	36%
Canada	51.56	32.30	19.27	37%	49.47	34.54	14.93	30%
USA	41.39	33.51	7.88	19%	43.84	34.83	9.01	21%

Table 9.25 : Price and Taxes in US ($) / Litre

Country	Petrol				Diesel			
	RSP	Ex - Tax Price	Taxes	% of Taxes	RSP	Ex - Tax Price	Taxes	% of Taxes
India	0.93	0.45	0.49	52%	0.71	0.43	0.28	39%
France	1.46	0.51	0.95	65%	1.03	0.49	0.54	52%
Germany	1.52	0.55	0.98	64%	1.07	0.55	0.53	49%
Italy	1.67	0.55	1.12	67%	1.25	0.56	0.69	55%
Spain	1.33	0.58	0.75	56%	1.00	0.59	0.41	41%
UK	1.69	0.52	1.17	69%	1.41	0.52	0.89	63%
Japan	1.13	0.57	0.55	49%	0.95	0.61	0.34	36%
Canada	0.78	0.49	0.29	37%	0.75	0.52	0.23	30%
USA	0.63	0.51	0.12	19%	0.66	0.53	0.14	21%

Note:

1. Prices of France, Germany, Italy, Spain, UK, Japan, Canada & USA: IEA report for September 2015 and average exchange rate of September 2015 considered for conversion: ₹ 66.22/USD.
2. Prices of India as of 7.11.2015. Petrol price as per IOCL. Average exchange rate of October 2015 ₹ 65.06/$ considered for conversion.

Table 9.26 : Retail Selling Price of Major Petroleum Products at State/UT Capitals as on 01.11.2015

State/Union Territory	City	Petrol	Diesel	Domestic LPG
		(₹/Litre)		(₹/14.2 KG Cyl.)
Andhra Pradesh	Hyderabad	65.76	50.06	616.00
Arunachal Pradesh	Itanagar	57.87	43.99	631.50
Assam	Guwahati	60.72	46.60	615.50
Bihar	Patna	65.28	49.50	653.50
Chhattisgarh	Raipur	60.15	49.04	614.50
Goa	Panjim	55.67	48.01	556.00
Gujarat	Gandhinagar	61.51	49.29	581.00
Haryana	Ambala	61.85	46.34	567.50
Himachal Pradesh	Shimla	62.72	46.44	602.50
Jammu & Kashmir	Srinagar	66.60	49.41	651.00
Jharkhand	Ranchi	64.45	48.95	628.50
Karnataka	Bengaluru	64.15	48.63	559.50
Kerala	Thiruvananthapuram	65.49	50.42	573.00
Madhya Pradesh	Bhopal	64.32	50.79	600.50
Maharashtra	Mumbai	67.77	53.11	555.00
Manipur	Imphal	57.43	44.17	712.00
Meghalaya	Shillong	58.88	45.51	607.50
Mizoram	Aizawl	57.62	43.73	690.00
Nagaland	Kohima	60.09	44.71	601.50
Odisha	Bhubaneswar	59.90	48.85	581.00
Punjab	Jalandhar	66.67	46.36	595.00
Rajasthan	Jaipur	63.76	49.17	533.50
Sikkim	Gangtok	63.95	48.41	734.50
Tamil Nadu	Chennai	61.02	47.10	559.50
Telangana	Hyderabad	65.76	50.06	616.00
Tripura	Agartala	57.21	44.06	691.00
Uttarakhand	Dehradun	66.86	48.85	586.00
Uttar Pradesh	Lucknow	68.67	51.43	598.50
West Bengal	Kolkata	66.11	49.55	575.00
Andaman & Nicobar Islands	Port Blair	52.27	42.54	631.50
Chandigarh	Chandigarh	59.75	46.67	567.00
Daman & Diu	Daman*	60.12	46.62	557.00
Dadra & Nagar Haveli	Silvasa*	60.17	46.66	563.50
Delhi	New Delhi	60.70	45.93	545.00
Puducherry	Puducherry	57.85	46.47	559.00

Source: IOCL * as per HPCL

Highest	Lowest

Table 9.27 : Retail Selling Price of PDS SKO at Major Cities as on 01.11.2015

State	City	(₹/Litre)
Maharashtra	Mumbai	15.24
Tamil Nadu	Chennai	13.70
West Bengal	Kolkata	15.26

Source: Oil Companies
Note: The allocation of PDS Kerosene in Delhi is NIL presently.

Table 9.28 : Customs and Excise Duty Rates Effective 07.11.2015

Particulars		Customs			Central Excise		
		Basic Customs Duty	Additional Customs Duty (CVD)	Additional Customs Duty	Basic Excise Duty	Special Additional Excise Duty	Additional Excise Duty
Crude Oil		NIL + ₹ 50/ MT as NCCD			Nil+₹4500/MT as Cess+ ₹50/ MT as NCCD		
Petrol		2.5%	₹7.06/ltr. + ₹6.00/ltr SAD	₹6.00/ltr.	₹7.06/ltr	₹6/ltr	₹6.00/ltr.
Petrol (branded)		-	-	-	₹8.24/ltr	₹6/ltr	₹6.00/ltr.
High Speed Diesel		2.5%	₹4.66/ltr.	₹6.00/ltr.	₹4.66/ltr.	Nil	₹6.00/ltr.
High Speed Diesel (branded)		-	-	-	₹7.02/Ltr	Nil	₹6.00/ltr.
LPG	Domestic	Nil	Nil	Nil	Nil	Nil	Nil
	Non - Domestic	5.0%	8.0%	Nil	8.0%	Nil	Nil
Kerosene	PDS	Nil	Nil	Nil	Nil	Nil	Nil
	Non PDS	5.0%	14.0%	Nil	14.0%	Nil	Nil
Aviation Turbine Fuel		Nil	8%	Nil	8%	Nil	Nil
Naphtha	Non-Fertilizer	5.0%	14.0%	Nil	14.0%	Nil	Nil
	Fertilizer	Nil	Nil	Nil	Nil	Nil	Nil
Propane/ Butane	Non - Domestic	5.0%	14%	Nil	14.0%	Nil	Nil
	Domestic	-	-	Nil	-	Nil	Nil
Bitumen & Asphalt		5.0%	14.0%	Nil	14.0%	Nil	Nil
Furnace Oil	Fertilizer	Nil	Nil	Nil	Nil	Nil	Nil
	Non-Fertilizer	5.0%	14.0%	Nil	14.0%	Nil	Nil
Light Diesel Oil		5.0%	14% + ₹ 2.50/ Ltr	Nil	14% + ₹ 2.50/ Ltr	Nil	Nil
Liquified Natural Gas		5.0%	Nil	Nil	Nil	Nil	Nil
Low Sulphur Heavy Stock/ HPS & other Residues	Fertilizer	5.0%	Nil	Nil	Nil	Nil	Nil
	Non-Fertilizer	5.0%	14.0%	Nil	14.0%	Nil	Nil
Lube oil/greases		5.0%	14.0%	Nil	14.0%	Nil	Nil
Natural Gas (Gaseous state)		5.0%	Nil	Nil	Nil	Nil	Nil
Petroleum Coke		2.5%	14.0%	Nil	14.0%	Nil	Nil
Petroleum Jelly		5.0%	14.0%	Nil	14.0%	Nil	Nil
Transformer Oil		10.0%	14.0%	Nil	14.0%	Nil	Nil
Waxes all types		5.0%	14.0%	Nil	14.0%	Nil	Nil

Source: IOCL Tariff Statement

Note:

- Additional Duty of Customs @4% would be levied in lieu of sales tax / VAT except petrol, diesel, SKO(PDS), LPG(Dom), coal, coke and petroleum gases and fuels of Chapter 27 on direct imports for consumption.
- In addition to above, Education Cess @2% on aggregate duties wll be charged w.e.f. 9.7.2004 and additional 1% will be charged w.e.f. 1.3.2007.
- Education cess has been removed on Excise duty effective 1st March 2015.

Table 9.29 : Effective Rates of Sales Tax / VAT Levied by Various States/UTs as on 01.11.2015

State	Petrol	Diesel	SKO (PDS)	Domestic LPG
	% of Town Rate before VAT			
Andhra Pradesh	39.56	32.88	5.00	5.00
Arunachal Pradesh	20.00	12.50	4.00	4.00
Assam	27.50	16.50	2.00	1.45
Bihar	24.50	18.00	5.00	1.00
Chhattisgarh	25.00	25.00	4.00	NIL
Goa	15.00	22.00	5.00	0.50
Gujarat	25.46	24.63	NIL	5.00
Haryana	26.25	17.22	NIL	NIL
Himachal Pradesh	27.00	16.00	NIL	4.00
Jammu & Kashmir	30.07	18.47	5.00	NIL
Jharkhand	34.61	25.21	2.00	3.43
Karnataka	32.30	22.48	5.50	1.00
Kerala	34.26	27.39	5.00	3.80
Madhya Pradesh	32.30	28.26	5.00	Basic VAT - 5.00 Entry tax - 2.00 } 7.10
Maharashtra – Mumbai, Thane & Navi Mumbai	32.05	29.00	3.00	3.00
Maharashtra (Rest of State)	31.14	26.00	3.00	3.00
Manipur	20.00	13.50	NIL	5.00
Meghalaya	19.22	13.77	NIL	NIL
Mizoram	20.00	12.00	NIL	1.79
Nagaland	24.68	14.18	5.25	5.00
Odisha	24.23	24.23	1.00	1.00
Punjab	36.42	17.77	6.05	4.40
Rajasthan	32.70	25.28	NIL	NIL
Sikkim	31.52	21.64	4.50	4.50
Tamil Nadu	27.00	21.43	5.00	NIL
Telangana	35.20	27.00	5.00	5.00
Tripura	20.00	13.50	NIL	1.50
Uttarakhand	35.84	21.00	NIL	5.00
Uttar Pradesh	33.76	23.17	4.04	NIL
West Bengal	28.42	21.18	NIL	NIL
Andaman & Nicobar Islands	NIL	NIL	NIL	NIL
Chandigarh	20.03	16.43	5.00	NIL
Dadra & Nagar Haveli	20.00	15.00	4.00	4.00
Daman & Diu	20.00	15.00	4.00	4.00
Delhi	25.00	17.37	5.00	NIL
Lakshadweep	NIL	NIL	NIL	NIL
Puducherry	15.00	14.00	NIL	0.50

Source: HPCL/IOCL

Note:

1. Effective rate Includes VAT, Cess, entry tax, Additional tax & Surcharge recoverable in price.
2. In Dadra & Nagar Haveli, Daman & Diu, Chandigarh and Puducherry, there is no depot/plant of OMCs and products are brought in from other states, hence CST @ 2% is also applicable (except for LPG in Puducherry as IOC has a bottling plant in Puducherry).
3. For Petrol & Diesel, VAT at applicable rates is also levied on Dealer's commission in Delhi, Gujarat, Haryana, Madhya Pradesh, Punjab, Dadra & Nagar Haveli, Daman & Diu, Chandigarh and Puducherry and on Petrol in Meghalaya.
4. For Domestic LPG, VAT at applicable rates is also levied on distributor commission by all States and UTs except Assam.
5. Himachal Pradesh has granted rebate on VAT whereby VAT is payable on selling price as reduced by GOI subsidy (DBTL).
6. In Jharkhand, VAT rate of DOM LPG remains same but for charging VAT, sale price of subsidized DOM LPG under DBTL scheme will be same as sale price of subsidized Dom LPG which does not come under DBTL scheme.
7. In Kerala, rate of LPG Domestic for supplies as per DBTL scheme exempted to the extent of subsidy granted by GOI.
8. VAT rebate on amount of subsidy granted by GOI, to seller of LPG for domestic use at every point of sale provided rebate is passed on to purchaser.

Table 9.30 : Actual Rate of Sales Tax/ VAT and Other Taxes Levied by State/UT Governments on Major Petroleum Products as on 01.11.2015

Sl. No.	State	Petrol	Diesel	PDS Kerosene	Domestic LPG
1	Andhra Pradesh	31% + Additional tax ₹ 4000/KL	22.25% + Additional tax ₹ 4000/KL	5%	5%
2	Arunachal Pradesh	20%	12.50%	4%	4%
3	Assam	27.50%	16.50%	2%	4% VAT - ₹ 14/ Cylinder (VAT Rebate)
4	Bihar	24.50%	18%	5%	1%
5	Chhattisgarh	25%	25%	4%	NIL
6	Gujarat	23% VAT+2% Cess on Town Rate +VAT	21% VAT + 3 % Cess on Town Rate+VAT	NIL	5%
7	Goa	15%	22%	5%	NIL
8	Himachal Pradesh	27%	16.00%	NIL	4% (refer note 1)
9	Haryana	25% VAT+5% Additional Tax on VAT	16.4% VAT+5% Additional Tax on VAT	NIL	NIL
10	Jharkhand	22% or ₹ 15/Litre whichever is higher + Cess ₹ 1000/KL	22% or ₹ 8.37/Litre whichever is higher + Cess ₹ 1000/KL	2%	5% (refer note 2)
11	Jammu & Kashmir	24% MST+ ₹3000/KL (Employment Cess)	16% MST+ ₹1000/KL (Employment Cess)	5%	0%
12	Kerala	31.80% sales tax+ Additional sales tax ₹ 1/Litre	24.52% sales tax+ Additional sales tax ₹ 1/Litre	5%	5% (refer Note no. 3)
13	Karnataka	5% Entry tax+ 26% Sales tax	5% Entry Tax+16.65% Sale tax	5.50%	1%
14	Madhya Pradesh	1% Entry Tax + 31 % VAT	1% Entry Tax +27% VAT	5%	2% Entry tax+5 % VAT
15	Maharashtra	25% VAT+ ₹ 3/Ltr	21% VAT + ₹ 2/ltr	3%	3%
16	Manipur	20%	13.50%	0%	5%
17	Meghalaya	20% + 2% Surcharge-rebate of ₹ 560/KL	13.5% +2% Surcharge - rebate of ₹ 500/KL	0%	0%
18	Mizoram	20%	12%	NIL	1.79%
19	Nagaland	23.5%+5% Surcharge	13.5%+ 5% surcharge	5%+5% surcharge	4.75%+5% surcharge
20	Odisha	1% Entry Tax + 23% VAT	1% Entry Tax+ 23% VAT	1% Entry Tax	1% Entry Tax
21	Punjab	₹2000/KL (Cess) +28% VAT+10% Additional Tax on VAT	₹1000/KL (Cess) 13.40% VAT+10% additional tax on VAT	5.5% VAT+ 10% additional tax on VAT	4% VAT+10% additional tax on VAT
22	Rajasthan	30% VAT+₹ 1250/KL (Cess)	22% VAT+ ₹ 1250/KL(Cess)	NIL	NIL
23	Sikkim	25%+Cess Rs3000/KL+ ₹ 100/KL for Sikkim Cons welfare Fund	15%+Cess ₹ 2500/KL+ ₹ 100/KL for Sikkim Cons Welfare Fund	4.50%	4.50%
24	Tamil Nadu	27%	21.43%	5%	NIL
25	Telangana	35.20%	27.00%	5%	5%
26	Tripura	20%	13.50%	0%	1.50%
27	West Bengal	25% Sales Tax or ₹ 13.12/Litre whoever is higher + ₹ 1000/KL (Cess)	17% Sales tax or ₹ 7.70/Litre whichever is higher + ₹ 1000/ KL(Cess)-Rs 290/KL (Sale tax rebate)	NIL	NIL
28	Uttar Pradesh	26.80% or ₹ 16.74 per litre (whichever in higher)	17.48% or ₹ 9.41 per litre (whichever in higher)	4% VAT +1% Additional Tax on VAT	NIL
29	Uttarakhand	25% VAT or ₹ 17/Litre whichever is higher	21% VAT	NIL	5% (refer note 4)
30	Andaman & Nicobar Islands	NIL	NIL	NIL	NIL
31	Chandigarh	₹ 10/KL (Cess) +20% VAT	₹10/KL(Cess) + 16.4% VAT	5%	NIL
32	Dadra & Nagar Haveli	20%	20%	4%	4%
33	Daman & Diu	20%	20%	4%	4%
34	NCT of Delhi	25%	₹ 250/KL (Air Ambience Charges)+16.6% VAT	5%	NIL
35	Lakshadweep	NIL	NIL	NIL	NIL
36	Puducherry	15%	14%	NIL	0.5% for DBTL / 1 % for Non-DBTL

Source: Oil Companies

Notes:

1. Himachal Pradesh has granted rebate on VAT whereby VAT is payable on selling price as reduced by GOI subsidy (DBTL).
2. VAT rate of Dom LPG remains same but for charging VAT, sale price of subsidized Dom LPG under DBTL scheme will be same as sale price of subsidized Dom LPG which does not come under DBTL scheme.
3. Rate of LPG Domestic for supplies as per DBTL scheme exempted to the extent of Subsidy granted by GOI.
4. VAT rebate on amount of subsidy granted by GOI, to seller of LPG for Domestic use at every point of sale provided rebate is passed on to purchaser

Table 9.31 : Contribution of Petroleum Sector to Exchequer

(₹ crore)

Particulars		2011-12	2012-13	2013-14	2014-15	Q1, 2014-15	Q1, 2015-16
1. Contribution to Central Exchequer							
A.	**Tax/Duties on Crude oil & Petroleum products**						
	Cess on Crude Oil	9046	16285	16183	15934	3615	3604
	Royalty on Crude Oil / Gas	4319	4366	4551	3858	1162	1437
	Customs Duty	10808	4540	5042	4767	1141	1894
	Excise Duty	68911	73310	77982	99184	16119	33042
	Service Tax	1080	1591	2092	2181	387	422
	Others	225	247	241	295	86	76
	Sub Total (A)	**94390**	**100339**	**106090**	**126219**	**22508**	**40475**
B.	**Dividend to Government/ Income Tax etc.**						
	Corporate/ Income Tax**	24634	21385	23326	23727	7393	6627
	Dividend Income to Central Govt.	10055	9266	9164	9197	0	0
	Dividend Distribution Tax	2703	2269	2951	3500	0	0
	Profit Petroleum on Exploration of Oil/ Gas*	7384	9367	11369	9423	325	192
	Sub Total (B)	**44776**	**42287**	**46810**	**45847**	**7717**	**6819**
Total Contribution to Central Exchequer (A+B)		**139165**	**142626**	**152900**	**172066**	**30226**	**47294**
2.	**Contribution to State Exchequer**						
	A. Tax/ Duties on Crude Oil & Petroleum Products						
	Royalty on Crude Oil / Gas	10990	13306	14493	14159	3903	2679
	Sales Tax/ VAT on POL Products	100415	115036	129045	137157	34042	34488
	Octroi, Duties Incl. Electricity Duty	2986	3391	4156	3838	943	553
	Entry Tax / Others	5567	4288	4748	5372	1315	2530
	Sub Total (C)	**119957**	**136021**	**152442**	**160526**	**40203**	**40250**
	B. Dividend to Government/ Direct tax etc.						
	Dividend Income to State Govt.	20	14	18	28	0	0
	Sub Total (D)	**20**	**14**	**18**	**28**	**0**	**0**
Total Contribution to State Exchequer (C+D)		**119977**	**136035**	**152460**	**160554**	**40203**	**40250**
	Total Contribution of Petroleum Sector to Exchequer (1+2)	**259143**	**278660**	**305360**	**332620**	**70429**	**87544**

Source: Oil Companies
* Profit petroleum on exploration of Oil/ Gas as per MOPNG data.

Table 9.32 : Contribution of Taxes and Duties on Petroleum Products to Central Exchequer vis-à-vis Payout by Government to OMCs

(₹ crore)

Particulars	2011-12	2012-13	2013-14	2014-15	Q1, 2014-15	Q1, 2015-16
Tax/ Duties on Petroleum Products to Central Exchequer (a)	94390	100339	106090	126219	22493	40475
Payout by Government to OMCs						
Oil Bonds/ Cash Assistance by Govt. towards OMCs Under Recoveries	83500	100000	70772	27308	17000	2588
Subsidy on PDS SKO and Dom. LPG	3000	2730	2580	0	0	0
Freight Subsidy on PDS SKO and Dom. LPG	23	23	21	23	0	0
Gas Subsidy for North East	458	627	625	661	117	0
DBTL Subsidy to OMCs	0	0	1420	2500	0	0
Total Payout to OMCs (b)	**86981**	**103380**	**75418**	**30492**	**17117**	**2588**
Net Contribution to Central Exchequer (a-b)	**7409**	**-3041**	**30672**	**95727**	**5376**	**37887**

* Extension of Subsidy schemes beyond 2013-14 approved by Govt. However, no payment has been made till December 2014.
Note: Cash payout under the subsidy schemes is on payment basis.

Table 9.33 : State/UT Wise Collection of Sales Tax/ VAT on POL Products

(₹ Crore)

Sl.No.	State/UT	2011-12	2012-13	2013-14	2014-15	Q1, 2014-15	Q1, 2015-16
	States						
1	Andhra Pradesh	10201	11282	12604	8777	3511	2110
2	Arunachal Pradesh	42	39	54	56	15	15
3	Assam	1871	1948	2160	2268	597	583
4	Bihar	2468	2790	2931	2885	435	600
5	Chhattisgarh	1707	1987	2397	2645	535	507
6	Goa	573	379	388	478	119	138
7	Gujarat	11896	13572	14610	15879	4763	4636
8	Haryana	3489	3964	4591	5112	1290	1393
9	Himachal Pradesh	163	182	204	234	62	60
10	Jammu & Kashmir	742	844	941	951	229	215
11	Jharkhand	1240	1478	1825	2076	267	363
12	Karnataka	6205	7215	7800	8668	2274	2255
13	Kerala	4110	4515	5173	5378	1085	1155
14	Madhya Pradesh	4545	5417	6232	6832	1422	1480
15	Maharashtra	15092	17359	19141	19795	5508	5082
16	Manipur	76	82	102	116	30	38
17	Meghalaya	4	2	3	2	1	1
18	Mizoram	44	60	44	58	16	14
19	Nagaland	55	60	64	83	17	27
20	Odisha	1888	2098	2520	2865	599	733
21	Punjab	2705	3386	3853	4179	1048	1189
22	Rajasthan	5268	6045	7396	8373	2177	2486
23	Sikkim	43	48	66	74	20	24
24	Tamil Nadu	9312	11379	12297	12316	3236	2877
25	Telangana	0	0	0	4527	0	1702
26	Tripura	137	159	160	180	40	57
27	Uttar Pradesh	8979	10344	11607	12579	2735	2612
28	Uttarakhand	733	825	1049	1157	310	274
29	West Bengal	4253	4818	5510	5563	1055	1079
	Union Territories						
30	Andaman & Nicobar Islands	0	0	0	0	0	0
31	Chandigarh	69	71	74	84	22	21
32/ 33	Dadra and Nagar Haveli / Daman & Diu	64	84	115	149	36	40
34	Delhi	2420	2575	3108	2798	581	718
35	Lakshadweep	0	0	0	0	0	0
36	Puducherry	19	27	29	22	7	4
	TOTAL	**100415**	**115036**	**129045**	**137157**	**34042**	**34488**

Source: Oil Companies

Table 9.34 : Profit After Tax (PAT) of Oil Companies

(₹ Crore)

Companies	2011-12	2012-13	2013-14	2014-15	H1, 2014-15	H1, 2015-16
Public Sector Oil Producing Companies						
ONGC	25123	20926	22095	17733	10227	10302
OIL	3447	3589	2981	2510	1460	1450
GAIL	3654	4022	4375	3039	1924	865
Total	32224	28537	29451	23282	13611	12617
Public Sector Downstream Integrated Oil Companies						
IOC	3954	5005	7019	5273	1624	6107
HPC	911	905	1734	2733	896	1268
BPC	1311	2643	4061	5085	1680	3394
Total	6176	8553	12814	13091	4201	10769
Public Sector Stand Alone Refineries						
MRPL	909	-757	601	-1712	-988	-504
CPCL	62	-1767	-304	-39	277	471
NRL	184	144	371	718	177	510
Total	1154	-2380	668	-1033	-533	478
Public Sector Consultancy Companies						
EIL	636	629	480	308	139	126
Total	636	629	480	308	139	126
Private Sector Companies						
RIL	20040	21003	21984	23566	11929	12690
Essar Oil	-1285	-1180	126	1521	910	1264
Total	**18755**	**19823**	**22110**	**25087**	**12839**	**13954**

Source: Published results of oil companies.

Table 9.35 : Financial Details of Oil Companies

2014-15

	IOCL	HPCL	BPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL
									(₹ Crore)
Net Sales / Income from Operations	436390	206380	237905	82126	9247	56569	57457	41847	9858
PBIT	11431	4861	7999	26558	4069	4646	-1749	-339	1171
Interest	3435	707	583	3	341	361	407	404	36
PBT	7995	4154	7416	26555	3729	4284	-2156	-742	1134
Tax	2722	1421	2331	8822	1219	1245	-444	-703	416
PAT	5273	2733	5085	17733	2510	3039	-1712	-39	718
Net Worth	67970	16022	22467	143623	21498	28888	5305	1655	3355
Borrowings (Loan Fund)	55248	20335	13098	1393	8341	9556	7865	5399	693
Ratios									
PAT as % of Turnover	1.2%	1.3%	2.1%	21.6%	27.1%	5.4%	-3.0%	-0.1%	7.3%
Debt (Loan fund) to Equity Ratio	0.81	1.27	0.58	0.00	0.39	0.00	1.48	3.26	0.21
EPS	28.91	80.72	70.32	20.73	41.76	23.96	-9.78	-2.62	9.76

H1, 2014-15

	IOCL	HPCL	BPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL
									(₹ Crore)
Net Sales / Income from Operations	235971	110785	128728	42108	4615	27400	31653	23601	4746
PBIT	4226	1685	2726	15133	2417	3058	-1292	-208	272
Interest	1953	316	324	0	164	185	165	219	16
PBT	2272	1369	2402	15133	2253	2873	-1458	-426	256
Tax	648	473	721	4906	793	949	-470	-703	78
PAT	1624	896	1680	10227	1460	1924	-988	277	177
Net Worth	66389	15413	21059	145855	21984	28711	6003	1974	3152
Borrowings (Loan Fund)	65663	23863	14061	0	8420	9634	8339	4780	752
Ratios									
PAT as % of Turnover	0.7%	0.8%	1.3%	24.3%	31.6%	7.0%	-3.1%	1.2%	3.7%
Debt (Loan fund) to Equity Ratio	0.99	1.55	0.67	0.00	0.38	0.00	1.39	2.42	0.24
EPS	6.69	26.47	23.24	11.95	24.25	15.17	-5.64	18.60	4.23

H1, 2015-16

	IOCL	HPCL	BPCL	ONGC	OIL	GAIL	MRPL	CPCL	NRL
									(₹ Crore)
Net Sales / Income from Operations	186124	93724	98339	43259	5148	26607	21531	15032	4557
PBIT	10361	2238	5212	15392	2415	1638	-223	662	808
Interest	1322	288	222	3	170	327	281	191	28
PBT	9040	1950	4990	15389	2245	1311	-504	471	780
Tax	2933	683	1596	5087	794	446	0	0	270
PAT	6107	1268	3394	10302	1450	865	-504	471	510
Net Worth	73660	17079	25563	149386	22604	29749	4801	3109	3865
Borrowings (Loan Fund)	56633	22094	16986	0	9134	9066	7380	4571	592
Ratios									
PAT as % of Turnover	3.3%	1.4%	3.5%	23.8%	28.2%	3.2%	-2.3%	3.1%	11.2%
Debt (Loan fund) to Equity Ratio	0.77	1.29	0.66	0.00	0.40	0.00	1.54	1.47	0.15
EPS	25.15	37.44	46.94	12.04	24.12	6.81	-2.87	31.54	6.93

Source: Published results/ Information obtained from oil companies

Table 9.36 : Under Recoveries and Burden Sharing

(₹ Crore)

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	H1, 2015-16
A.	**Under Recovery - Product wise**	**138541**	**161029**	**139869**	**72314**	**7129**
	MS	0	0	0	0	0
	HSD	81192	92061	62837	10935	0
	Domestic LPG (Subsidized)	29997	39558	46458	36580	7
	PDS Kerosene	27352	29410	30574	24799	7122
B.	**Under Recovery - Company wise**	**138541**	**161029**	**139869**	**72314**	**7129**
	IOC	75469	85793	72938	39758	4793
	HPC	30434	36246	32468	16416	1222
	BPC	32638	38990	34463	16141	1115
C.	**Government - Issue of Oil Bonds / Cash Assistance**	**83500**	**100000**	**70772**	**27308**	**5142**
	(% of Under Recovery)	60%	62%	51%	38%	72.1%
	IOC	45486	53278	37182	14960	3448
	HPC	18343	24825	15215	5058	841
	BPC	19671	21897	18374	7290	852
	Total	**83500**	**100000**	**70772**	**27308**	**5142**
D.	**Upstream Oil Companies - Discount on Crude & Product**	**55000**	**60000**	**67021**	**42822**	**1980**
	(% of Under Recovery)	39.7%	37%	48%	59%	27.8%
	ONGC	(44466)	(49421)	(56384)	(36300)	1729
	OIL	(7352)	(7892)	(8737)	(5523)	252
	GAIL	(3183)	(2687)	(1900)	(1000)	0
	Total - Discount given	(55000)	(60000)	(67021)	(42822)	1980
	IOC	29961	31967	34674	23597	1340
	HPC	12082	11189	16771	10862	378
	BPC	12957	16844	15577	8363	262
	Total - Discount received	**55000**	**60000**	**67021**	**42822**	**1980**
E.	**Borne by OMCs**	**41**	**1029**	**2076**	**2184**	**7**
	(% of Under Recovery)	0.03%	1%	1%	3%	0.1%
	IOC	22	548	1083	1201	4
	HPC	9	232	482	496	3
	BPC	10	249	512	487	0

Table 9.37 : Fiscal Subsidy Provided Under 'PDS Kerosene and Domestic LPG Subsidy Scheme 2002', 'Freight Subsidy (For Far-Flung Areas) Scheme 2002' & DBTL Subsidy on Domestic LPG

(₹ Crore)

Product	2011-12	2012-13	2013-14	2014-15	H1, 2015-16
PDS Kerosene	868	746	681	5	0
Domestic LPG (Subsidized)	2155	2007	1920	18	0
DBTL Subsidy on Domestic LPG	0	0	3869	3971	8807
Total	**3023**	**2753**	**6470**	**3994**	**8807**

Note - Extension of Subsidy schemes for 2014-15 approved by Govt. However, payment was released only for freight subsidy and no payment has been made in 2014-15 for Main subsidy scheme. The Schemes are under updation for 2015-16

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Chapter-10

MISCELLANEOUS

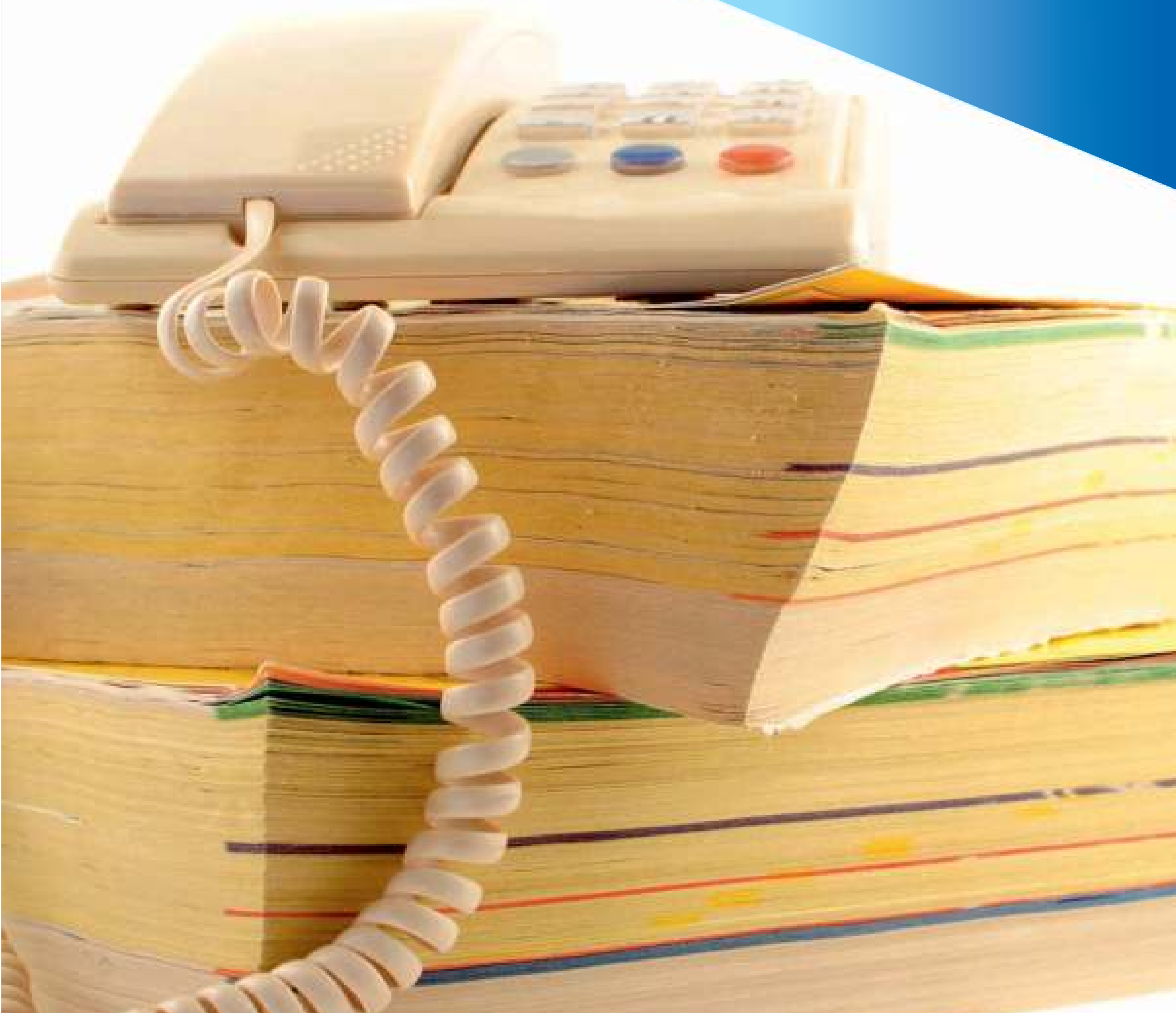

Table 10.1 : Average International Calorific Values of Different Fuels

A.	**Oil Products**	**M Cals/tonne or K Cal/Kg**
	NGL	12135
	Kerosene	10638
	Motor Gasoline	11135
	Fuel Oil	10440
B.	**Natural gas production (average) - India**	**8000-9480 K cal/SCM**
C.	**India**	**M Cals/tonne or K Cal/Kg**
	Charcoal	6900
	Hard coal	5000
	Firewood	4750
	Lignite-Brown coal	2310

Source: Indian Petroleum & Natural Gas Statistics, MOP&NG
Conversion Factor: 1 K Cal = 4.19 K Joules

Conversion Factors

Table 10.2 : Weight to Volume Conversion

Product	Weight (MT)	Volume (KL)	BBL	To convert volume at 29.5° C to volume at 15°C multiply by
Petrol	1	1.4110	8.50	0.9832
Diesel	1	1.2100	7.45	0.9879
Kerosene	1	1.2850	7.90	0.9864
ATF	1	1.2880	8.10	0.9862
Light Diesel Oil	1	1.1720	7.37	0.9877
Furnace Oil	1	1.0710	6.74	0.9899
Crude Oil	1	1.1700	7.33	

Source: Indian Petroleum & Natural Gas Statistics / Petrol and Diesel are as per BS-IV norms

Table 10.3 : Volume Conversion

1 US Bbl.	159 Litres
1 US Gallon	3.78 Litres
1 Kilo Litre (KL)	6.29 Bbl.
1 US Bbl.	42 Gallons
1 MBD (million barrels per day)	50 MMTPA

Table 10.4 : Contents of Natural Gas & LPG

Natural Gas	Contains 60-95 % Methane
LPG	Contains Propane (40%) & Butane (60%)

Table 10.5 : Natural Gas Conversions

1 SCM (Standard Cubic Meter)	= 1 cubic metre @ 1 atmosphere pressure and 15.56° C	
1 Cubic Metre	= 35.31 Cubic feet	
1 BCM(Billion Cubic Metre) / Year of gas (consumption or production)	= 2.74 MMSCMD	365 Days a Year
1 TCF (Trillion Cubic Feet) of Gas Reserve	= 3.88 MMSCMD	100% Recoverable for 20 years @ 365 days / Annum)
1 MMTPA of LNG	=3.60 MMSCMD	Mol.Weight of 18 @ 365 days/Annum)
1 MT of LNG	=1314 SCM	Mol.Weight of 18
Gross Calorific Value (GCV)	=10000 Kcal/ SCM	
Net Calorific Value (NCV)	=90% of GCV	
1 Million BTU (MMBTU)	= 25.2 SCM	@10000 Kcal/SCM; 1 MMBTU= 252,000 Kcal)
Specific Gravity of Gas	= 0.62	Molecular Weight of Dry Air=28.964 gm/mole)
Density of Gas	=0.76 Kg/SCM	Mol.Weight of Gas 18 gm/mol
Gas required for 1 MW of Power generation	=4541 SCM per Day	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); N.Gas GCV-@10000Kcal/SCM
Power Generation from 1 MMSCMD Gas	=220 MW	Station Heat Rate (SHR);~1720 Kcal/Kwh-NCV (50% Thermal Efficiency); N.Gas GCV-@10000Kcal/SCM

Source: GAIL (India) Ltd.

Table 10.6 : Major End Use of Petroleum Products

Product	Major end use
LPG	Domestic and Auto fuel. Also for Industrial application where technically essential.
Naphtha	Feedstock/ fuel for fertiliser units, feedstock for petrochemical sector and fuel for power plants.
MS	Fuel for passenger cars, taxies, two & three wheelers.
ATF	Fuel for aircrafts.
SKO	Fuel for cooking & lighting.
HSD	Fuel for transport sector (railways/ road), agriculture (tractors, pumpsets, threshers,etc.) and captive power generation.
LDO	Fuel for agricultural pumpsets ,small industrial units, start up fuel for power generation.
FO/LSHS	Secondary fuel for thermal power plants, fuel/ feedstock for fertiliser plants, industrial units.
Bitumen	Surfacing of roads.
Lubes	Lubrication for automotive and industrial applications.
Other products (Benzene, Toluene, MTO, LABFS, CBFS, Paraffin wax, etc.)	Feedstock for value added products.

Information About Key Officers of MOP&NG

Department	Name (S/Shri)	Designation	Telephone No.	Fax No.
Secretary	**Kapil Dev Tripathi**	**Secretary**	**23383501**	**23070723**
			23383562	
	K P Muralidharan	Sr. PPS to Secretary	23383562	
Additional Secretary	**Ajay Prakash Sawhney**	**Additional Secretary**	**23381052**	**23386090**
	Manjit Singh	PPS to Additional Secretary	23381052	
Finance	**Anant Kumar Singh**	**Additional Secretary & FA**	**23381704**	**23074226**
	Anil Semwal	PS to AS & FA	23381704	
	Alok Chandra	**Advisor (FIN)**	23073165	
	Ms Shikha Khurana	PS to Adv (FIN)	23073165	
	Ms Kiran Vasudeva	**DS Finance**	23387467	
Exploration	**U.P. Singh**	**Additional Secretary (E)**	**23381832**	**23070562**
	V.K. Suman	PPS to AS (E)	23381832	
	Prashant Lokhande	**Dir (E.III) Addl. Charge**	23383678	23070688
	Nalin Srivastava	**Dir (Expl.II)**	23386526	23074409
Refinery and Administration	**Sandeep Poundrik**	**Joint Secretary (Refineries)**	**23386935**	**23382673**
	T Satish Kumar	PS to JS (R)	23386935	
	Ms Perin Devi	**Director (Supply & Pricing)**	23386965	23383100
		Additional Charge		
	Ms Mary Jacob	**DS (Ad & CA)**	23387936	23383585
Marketing	**Ashutosh Jindal**	**Joint Secretary (M)-Additional Charge**	**23382418**	**23384401**
	Sampooran Singh	PPS to JS(M)	23382418	**23384401**
	Vijay Gopal Mangal	DS(D & MC)	23381029	
	K M Mahesh	DS (LPG)	23383508	
International Cooperation	**Ashutosh Jindal**	**Joint Secretary (IC & GP)**	**23382418**	**23384401**
	Sampooran Singh	PPS to JS (IC & GP)	23382418	23384401
	Ms Anuradha Chagti	**Dir (I/C)**	23383678	
General	**Ms Sushma Rath**	**Joint Secretary (General)**	**23386407**	**23383585**
	Suresh Chander	PS to JS (G)	23386407	
Economics & Statistics	**Ms Urvashi Sadhwani**	**Sr. Advisor**	23385823	23383752
	K S N Rao	PPS to Eco. Adv.	23385823	

Information About Key Officers of PPAC

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	P R Nair	PS to Director General	24361081	
Finance	**Rajiv Bakhshi**	**Director (Finance)**	**24360356**	**24364227**
	Ms. Satbir Hira	PS to Director (F)	24360356	24364227
Demand & Economic Studies	**Rohit Dawar**	**Addl. Director (D&ES)**	**24306181**	**24361253**
Supply	**Ms. B M Sujatha**	**Addl. Director (S)**	**24360352**	**24361203**
Administration	**Sunil Kumar**	**Jt. Director I/c (HR&C)**	**24361717**	**24364225**
IT	**Ms. Shalini Mehra**	**Jt. Director I/c (IT)**	**24362407**	**24361253**
Marketing	**R K Gupta**	**Jt. Director I/c (Mktg.)**	**24360489**	**24361253**
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EPABX NOs. 24306191 / 24361314				

Gujarat Refinery, Indian Oil

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