

Ready Reckoner

Snapshot of India's Oil & Gas data

December, 2014



Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

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Highlights

<ul style="list-style-type: none">• At IOC Barauni, units AVU-2, AVU-3, DHDT, and HGU-1 were under planned shutdown for 30 days w.e.f. 16-19/11/2014. Now the units are under start up and stabilization. ##
<ul style="list-style-type: none">• At CPCL, VBU was under planned shutdown for 12 days from 16/12/14 for furnace decoking. .##
<ul style="list-style-type: none">• At IOC Bongaigaon: DHDT was under unplanned shutdown for 4 days from 19/12/14 for attending vibration problem of RGC turbine. .##
<ul style="list-style-type: none">• CCR of Kochi Refinery was under planned shutdown w.e.f. 12/11/2014 to 11/12/2014. CCR is back and normal. ##
<ul style="list-style-type: none">• Problem of CCR at HPC Mumbai Refinery continues off and on, affecting availability of MS BS IV. ##
<ul style="list-style-type: none">• Crude Oil production in PSC regime was affected by under performance of “Bhagyam Field Wells”. On cumulative basis also RJ-ON-90/1 accounted for major loss of production i.e. 122.12 TMT w.r.t April-December 2013.
<ul style="list-style-type: none">• Consumption of all petroleum products registered growth of 6.1% in December, 2014 as compared to that in December, 2013. Except for Naphtha, Lubes, LDO, FO, Bitumen & ATF, all other products have recorded positive growth and a cumulative growth of 3.8% during April-December, 2014.
<ul style="list-style-type: none">• The LPG consumption for the sixteenth month in a row recorded a positive high growth of 17.7% during December, 2014 and a cumulative growth of 11.9% during the period April-December, 2014.

##: Source: FMDP Meeting dated: 25/11/2014

1. Selected Indicators of the Indian Economy

Economic Indicators		Unit/Base	2011-12	2012-13	2013-14 (P)	2014-15 (P)
1	Population (as on 1 st March 2011)	Billion	1.2	-	-	-
2	GDP at Factor Cost (Constant prices)	Growth %	6.7 2 nd RE	4.5 1 st RE	4.9 H1	5.5 H1
3	Agricultural Production (Food grains)	MMT	259.3	257.1	264.8 4 th AE	120.3 1 st AE
		Growth %	6.1	-0.8	3.0	-7.0
4	Gross Fiscal Deficit	%	-5.7	-4.8	-4.6 (RE)	-4.1 (BE)

Economic Indicators		Unit/Base	2013-14	December		April-December	
				2013	2014	2013	2014
5	Index of Industrial Production@	Growth %	2.8	-1.3	3.8	0.1	2.2
6	Imports	\$ Billion	450.9	36.6	34.8	339.0	351.2
7	Exports	\$ Billion	312.4	26.4	25.4	231.8	241.2
8	Trade Balance	\$ Billion	-138.6	-10.2	-9.4	-107.1	-110.1
9	Foreign Exchange Reserves	\$ Billion	303.7	295.7	319.7	-	-

@ IIP is for the month of November & cumulative April-November

2. Import Dependency							
Petroleum & Natural Gas Sector		Unit/Base	2013-14 (P)	December		April-December	
				2013	2014 ^(P)	2013	2014 ^(P)
1	Crude Oil Production In India	MMT	37.8	3.3	3.2	28.4	28.2
2	Consumption of Petroleum Products	MMT	158.4	13.6	14.4	117.8	122.3
3	Production of Petroleum Products	MMT	220.2	18.8	19.5	164.8	165.1
4	Imports & Exports:						
	Crude Oil Imports	\$ Billion	142.9	12.3	8.1	107.8	97.0
	Petroleum Products (POL) Imports	\$ Billion	12.3	1.3	0.9	8.8	9.6
	Gross Petroleum Imports (Crude + POL)	\$ Billion	155.2	13.6	9.1	116.6	106.6
	Petroleum Products Exports	\$ Billion	60.7	5.7	3.9	46.7	40.5
5	Petroleum Imports as % of India's Gross Imports	%	34.4	37.2	21.1	34.4	30.4
6	Petroleum Exports as % of India's Gross Exports	%	19.4	21.6	15.4	20.1	16.8
7	Import Dependency (Based on Consumption)	%	77.6%	78.3%	78.7%	77.2%	78.2%

3. Estimated Value of Crude oil imports during 2014-15				
Petroleum & Natural Gas Sector		Quantity (MMT)	\$ Million	Rs. Crore
Crude Oil Imports		189.80	114,481	702,683

(Actual for April-Dec 2014, Jan-Mar 2015 estimated considering Indian Crude basket at \$50/bbl and average exchange rate of Rs. 62/\$)

Impact of variation in Crude oil price & Exchange rate on Crude oil imports during Q4 of 2014-15:

- If Crude prices increases by One \$/bbl - Net Import bill increases by Rs. 2,169 crores (\$ 0.35 bn)
- If Exchange rate of \$ increases by Rs. 1/\$ - Net Import bill increases by Rs. 1,749 crores (\$ 0.28 bn)

4. Indigenous Crude Oil Production (Million Metric Tonne)					
Details	2013-14 (P)	December		April-December	
		2013	2014 ^(P)	2013	2014 ^(P)
ONGC	19.2	1.6	1.6	14.4	14.0
OIL	3.5	0.3	0.3	2.7	2.6
Private / JVs	12.0	1.1	1.0	9.0	8.8
Total Crude Oil	34.7	3.0	2.9	26.1	25.5
Condensate	3.1	0.3	0.3	2.3	2.7
Total (Crude Oil + Condensate) (MMT)	37.8	3.3	3.2	28.4	28.2
Total (Crude Oil + Condensate) (Million Barrels)	277.04	24.0	23.5	208.4	206.5
5. Domestic Oil & Gas Production vis a vis Overseas Production					
Year	2013-14 (P)	December		April-December	
		2013	2014 ^(P)	2013	2014 ^(P)
Total Domestic (MMTOE)	73.2	6.5	6.1	55.1	53.5
Overseas production of OVL (MMTOE)	8.4	0.731	0.801	6.194	6.552
Overseas Production as % of Domestic	11.5%	11.3%	13.1%	11.2%	12.3%
6. 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			0.67		MMSCMD

7. Refineries: Installed Capacity and Crude Oil Processing (MMTPA / MMT)

	Company	Refinery	Installed Capacity (1.4.2014)	Crude Oil Processing				
				2013-14 (^P)	December		April-December	
					2013	2014 (^P)	2013	2014 (^P)
1	IOCL	Barauni	6.0	6.5	0.6	0.3	4.8	4.4
2		Koyali	13.7	13.0	1.2	1.2	9.6	10.1
3		Haldia	7.5	8.0	0.7	0.7	5.9	5.8
4		Mathura	8.0	6.6	0.6	0.7	4.8	6.3
5		Panipat	15.0	15.1	1.3	1.3	11.4	10.5
6		Guwahati	1.0	1.0	0.1	0.1	0.8	0.8
7		Digboi	0.7	0.7	0.1	0.1	0.5	0.5
8		Bongaigaon	2.4	2.3	0.2	0.2	1.7	1.8
		IOCL TOTAL	54.2	53.1	4.8	4.6	39.5	40.1
9	HPCL	Mumbai	6.5	7.7	0.6	0.7	5.7	5.4
10		Visakhapatnam	8.3	7.8	0.7	0.8	5.4	6.4
11	HMEL	HMEL-Bhatinda	9.0	9.3	0.7	0.9	6.8	5.2
		HPCL-TOTAL	23.8	24.8	2.1	2.4	17.9	16.9
12	BPCL	Mumbai	12.0	12.7	1.0	1.2	9.5	9.5
13		Kochi	9.5	10.3	0.6	0.7	7.6	7.7
14	BORL	Bina	6.0	5.4	0.6	0.6	4.3	4.6
		BPCL-TOTAL	27.5	28.4	2.2	2.4	21.4	21.8

	Company	Refinery	Installed Capacity (1.4.2014)	Crude Oil Processing				
				2013-14 (^P)	December		April-December	
					2013	2014 (^P)	2013	2014 (^P)
15	CPCL	Manali	10.5	10.1	0.7	0.9	7.4	7.7
16		CBR	1.0	0.6	0.1	0.04	0.4	0.4
		CPCL-TOTAL	11.5	10.7	0.8	1.0	7.8	8.1
17	NRL	Numaligarh	3.0	2.6	0.3	0.2	2.0	2.2
18	ONGC	Tatipaka	0.1	0.1	0.01	0.01	0.05	0.04
19		MRPL-Mangalore	15.0	14.6	1.4	1.4	10.7	10.6
		ONGC TOTAL	15.1	17.3	1.6	1.7	12.8	12.8
20	RIL	Jamnagar (DTA)	33.0	30.3	2.2	2.8	23.4	23.6
21		Jamnagar (SEZ)	27.0	37.7	3.2	3.2	28.3	28.2
22	EOL	Vadinar	20.0	20.2	1.7	1.8	15.2	15.4
		All India	215.1	222.4	18.6	19.7	166.3	166.7

8. High Sulphur (HS) & Low Sulphur (LS) Crude Oil Processing (MMT)

	Type of crude	2013-14 (^P)	December		April-December	
			2013	2014 (^P)	2013	2014 (^P)
			1	HS Crude	160.2	13.2
2	LS Crude	62.2	5.4	5.3	46.3	46.5
	Total Crude	222.5	18.6	19.7	166.3	166.7
	Share of HS Crude of total crude processing	72.04%	70.89%	73.27%	72.18%	72.12%

9. Gross Refining Margins (GRM) of Refineries (\$/bbl)						
Company	Refinery	2011-12	2012-13	2013-14	Apr-Sept'13	Apr-Sept'14
IOCL	Barauni	0.39	2.40	6.68	9.93	0.81
	Koyali	5.07	4.61	4.52	3.30	3.76
	Haldia	2.38	0.85	2.84	4.49	-1.12
	Mathura	0.59	0.55	2.10	5.47	-3.14
	Panipat	4.39	3.34	3.62	5.20	-0.64
	Guwahati	11.94	9.52	6.38	0.35	-6.09
	Digboi	14.85	20.81	15.41	11.30	4.37
	Bongaigaon	6.25	5.26	6.71	4.02	-1.34
	Average	3.63	3.16	4.24	5.19	0.09
BPCL	Kochi	3.20	5.36	4.80	5.11	1.74
	Mumbai	3.12	4.67	3.95	3.76	2.89
	Average	3.16	4.97	4.33	4.38	2.36
HPCL	Mumbai	1.74	2.08	5.38	4.37	3.89
	Visakhapatnam	2.95	2.08	1.50	2.12	0.67
	Average	2.39	2.08	3.43	3.27	2.09
CPCL	Chennai	4.16	0.99	4.06	5.76	2.11
MRPL	Mangalore	5.60	2.45	2.67	3.98	-1.79
NRL	Numaligarh	12.45	10.52	12.09	5.48	9.79
BORL	Bina	-	7.00	7.70	9.20	5.70
RIL	Jamnagar	8.60	9.20	8.10	8.00	8.50
Essar	Vadinar	4.23	7.96	7.98	6.97	8.05

10. GRM of North East Refineries excluding Excise Duty Benefit						
						\$/bbl
Company	Refinery	2011-12	2012-13	2013-14	Apr-Sept'13	Apr-Sept'14
IOCL	Guwahati	3.73	3.43	0.88	-4.79	-11.44
	Digboi	6.41	13.25	8.50	4.17	-2.50
	Bongaigaon	0.56	0.25	2.34	-0.22	-5.42
NRL	Numaligarh	5.80	4.83	6.98	0.39	4.80

11. Natural Gas at a Glance					
(MMSCM)					
	2013-14 (P)	December		April-December	
		2013	2014 (P)	2013	2014 (P)
Gross Production	35390.9	3001.7	2896.7	26682.1	25339.3
Net Production (Excluding Flair Gas)	34554.6	2930.9	2808.8	26043.0	24635.1
LNG Import	14257.0	1265.4	1315.7	10777.6	12007.2
Total Consumption (Net Production + Import)	48811.6	4196.2	4124.5	36820.6	36642.2
Total Consumption (in BCM)	48.8	4.2	4.1	36.8	36.6

(Reliance import figure is not included)

12. Consumption of Petroleum Products (Million Metric Tonnes)								
Products	December 2013		December 2014 ^(P)		Apr-Dec. 2013		Apr-Dec. 2014 ^(P)	
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
LPG	0.9	1.4	0.9	1.7	7.2	119.	7.2	13.3
MS	2.6	1.5	2.9	1.6	22.8	12.9	24.2	14.1
NAPHTHA	1.5	0.9	1.5	0.8	13.8	8.4	13.2	8.0
ATF	1.0	0.5	1.0	0.5	8.5	4.1	8.1	4.2
SKO	0.6	0.6	0.6	0.6	5.6	5.4	5.8	5.3
HSD	8.1	6.0	8.4	6.1	69.9	51.3	70.8	51.9
LDO	0.04	0.03	0.02	0.03	0.3	0.3	0.3	0.3
LUBES	0.1	0.3	0.1	0.3	0.7	2.3	0.6	2.2
FO/LSHS	1.0	0.5	1.1	0.5	10.2	4.8	9.2	4.4
BITUMEN	0.5	0.5	0.4	0.4	3.4	3.3	3.3	3.4
OTHERS	2.5	1.3	2.5	1.8	22.5	13.1	22.4	15.1
ALL INDIA	18.8	13.6	19.5	14.4	164.8	117.8	165.1	122.3
Growth (%)			3.4%	6.1%			0.2%	3.8%

13. Self Sufficiency in Petroleum Products (Million Metric Tonnes)					
Details	2013-14 ^(P)	December		April-December	
		2013	2014 ^(P)	2013	2014 ^(P)
1. Indigenous Crude Oil Processing :	33.9	2.9	2.9	25.5	25.6
a) Products from Indigenous Crude (93.3% of crude oil processed)	31.6	2.7	2.7	23.8	23.9
b) Products from Fractionators (Including LPG and Gas)	3.8	0.3	0.3	3.1	2.7
2. Total Production from Indigenous Crude & Condensate (a + b)	35.5	3.0	3.1	26.8	26.6
3. Total Domestic Consumption	158.4	13.6	14.4	117.8	122.3
% Self Sufficiency (2 / 3)	22.4%	21.71%	21.28%	22.80%	21.79%

14. Industry Marketing Infrastructure (as on 31.3.2014) (Provisional)								
Particulars	IOCL	BPCL	HPCL	RIL	ESSAR	SHELL	Others	Total
Terminal/ Depots (Nos.)	135	82	95	5	2		1	320
Aviation Fuel Stations (Nos.)	98	36	33	27	3	5	2	204
Retail Outlets (total) (Nos.)	23993	12123	12869	1400	1382	100	3	51870
LPG Distributors (total) (Nos.)	7035	3355	3506					13896
SKO/LDO Dealers (Nos.)	3930	1014	1638					6582
LPG Bottling (TMTPA)	7170	3075	2960					13205
Rural ROs (Nos.)	6002							6002
RGGLVY (Nos.)	1421	817	798					3036
LPG Consumers (Nos. Crores)	8.18	4.12	4.33					16.63

15. Major Pipeline network (as on 1.4.2014)								
Nature of Pipeline	GAIL	Reliance	GSPCL	AGC	IOCL	ONGC		Total
Natural Gas	Length (KM)	10841	1469	1874	1000	132	24	15340
	Cap (MMSCMD)	243.5	80.0	50.0	6.0	9.5	6.0	395.0

	ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Other	Total
Crude Oil	Length (KM)	1195	1193	670	1017	4448	937	-	9460
	Cap (MMTPA)	56.9	8.4	8.7	9.0	40.4	6.0	-	129.4
Products	Length (KM)	-	654	-	-	6632	1697	2407	14083
	Cap (MMTPA)	-	1.7	-	-	36.6	10.8	20.5	78.3

Others include GAIL and Petronet India

16. Information on Prices, Taxes and Under-recoveries

Sales & profit of Petroleum Sector (Rs. Crores)		
Apr-Sept 2014	Turnover	PAT
Upstream Companies	74124	13611
Downstream Cos.	475484	4201
Standalone Refineries	60000	-533
Private/JVs	268483	12839

Customs & Excise Duty rates		
	Customs duty	Excise duty
Crude oil	Nil+Rs.50/MT as NCCD	NIL+Rs.4500/MT Cess + Rs. 50/ MT NCCD
Petrol	2.50%	Rs.17.46/Ltr
Diesel	2.50%	Rs.10.26/Ltr
PDS SKO	Nil	NIL
Non PDS SKO	5%	14%
Sub. Dom LPG	Nil	Nil
Non Domestic LPG	5%	8%
Furnace Oil	5%	14%
Naphtha	5%	14%
ATF	NIL	8%

Price buildup of Petroleum products (Rs./litre/Cy.)		
	Petrol	Diesel
Price before taxes and dealer comm.	29.16	30.59
Central taxes	17.93	10.81
State taxes	9.82	5.61
Dealer comm.	2.00	1.25
Retail Selling Price	58.91	48.26
	PDS SKO*	Sub. Dom LPG
Price before taxes and dealer comm.	13.55	373.41
Central taxes	0	0
State taxes	0.44	0
Dealer comm.	1.15	44.06
Retail Selling Price	15.14	417

*At Mumbai, other products at Delhi

Change in Ex. Rate/ Crude price : Impact on Under-recoveries		
(Rs. Crores)	Rs.1/\$ Ex. Rate	\$1/bbl Crude
Impact on Under-recovery	1300	1300

16. Information on Prices, Taxes and Under-recoveries

Under-recoveries & Burden Sharing			
	2013-14	Apr-Sept`13	Apr-Sept`14
Per unit under-recovery (Rs./litre/Cyl.)			
Diesel	8.39	7.64	3.13
PDS SKO	33.98	31.24	33.42
Sub. Dom LPG	499.52	400.16	461.7
Total Under-recoveries (Rs. Crores)			
Diesel	62837	28266	11656
PDS SKO	30575	14057	14857
Sub. Dom LPG	46458	18585	24597
Total	139869	60907	51110
Burden Sharing (Rs. Crores)			
Government	70772	25772	17000
Upstream	67021	32034	31926
OMCs	2076	3101	2184
Fiscal Subsidy under Govt. Schemes (Rs. Crores)			
Fiscal Subsidy under Govt. Schemes (Rs. Crores)			
PDS SKO	681	423	*
Sub. Dom LPG	1920	1201	*

*Scheme was extended till 31.3.2014. Further extension yet to be approved.

International Prices/ Exchange rates (\$/bbl)			
	2012-13	2013-14	Apr-Dec14
Crude (Indian Basket)	107.97	105.52	75.17
Petrol	118.98	114.31	85.19
Diesel	121.97	119.41	87.41
Kerosene	123.11	118.80	89.28
LPG (\$/MT)	885.20	880.49	640.24
FO (\$/MT)	632.52	595.79	418.03
Naphtha (\$/MT)	888.49	881.30	607.95
Exchange (Rs./\$)	54.45	60.50	62.00
Borrowings of OMCs (Rs. Crores)			
	2012-13	2013-14	Apr-Sep14
IOCL	80894	86263	65663
BPCL	23839	20322	14061
HPCL	33789	32164	23863
Petroleum Sector Contribution to Central/State Govt.			
	2012-13	2013-14	Apr-Jun14
Central Government	142626	152900	30221
State Government	136034	152460	40270
Total (Rs. Crores)	278660	305360	70491
Subsidy as a % of GDP			
	2011-12	2012-13	2013-14
Petroleum Subsidy	1.70	1.75	1.37

17. Conversion Factors and Volume Conversion

Weight to Volume Conversion			
Product	Weight (MT)	Volume (KL)	Barrel (bbl)
LPG	1	1.844	11.60
Petrol (MS)	1	1.4110	8.50
Diesel (HSD)	1	1.2100	7.45
Kerosene (SKO)	1	1.2850	7.90
ATF	1	1.2880	7.90
Light Diesel Oil (LDO)	1	1.0720	6.75
Furnace Oil (FO)	1	1.0424	6.55
Crude Oil	1	1.1700	7.33

Volume Conversion	
From	To
1 bbl (British Barrel)	159 litres
1 bbl (British Barrel)	42 US Gallons
1 US Gallon	3.78 litres
1 Kilo litre (KL)	6.29 bbl
1 million barrels per day	49.8 MMTPA
Energy Conversion	
1 Kilocalorie (kcal)	4.187 kJ
1 Kilocalorie (kcal)	3.968 Btu
1 Kilowatt-hour (kWh)	860 kcal
1 Kilowatt-hour (kWh)	3412 Btu

Exclusive Economic Zone	
200 Nautical Miles	370.4 Kilometers

Natural Gas Conversions			
1 Standard Cubic Metre	35.31 Cubic Feet	1 MMBTU	25.2 SCM @10000 kcal/SCM
1 BCM/year of Gas	2.74 MMSCMD	GCV (Gross Calorific Value)	10000 kcal/SCM
1 TCF of Gas Reserve	3.88 MMSCMD	NCV (Net Calorific Value)	90% of GCV
1 MMTPA of LNG	3.60 MMSCMD	Gas required for 1 MW power generation	4128 SCM/day
1 MT of LNG	1314 SCM	Power generation from 1 MMSCMD of gas	242 MW