

Ready Reckoner

Snapshot of India's Oil & Gas data

May, 2014



Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

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Highlights

- During May 2014, Crude oil prices (Indian basket) were \$106.94/bbl as compared to \$105.62/bbl during April 2014, while the Rupee strengthened from Rs. 60.36/\$ during April 2014 to Rs. 59.31/\$ in May 2014; resulting in crude oil price (In Indian Rupees) reducing by 0.51% from Rs. 6,375.22/bbl in April 2014 to Rs. 5,342.61/bbl in May 2014
- Average under-recoveries during May 2014 vis-à-vis April 2014 reduced (Diesel: From Rs. 5.71 to Rs. 5.64/litre; PDS Kerosene: From Rs. 34.43 to Rs. 33.85/litre; Domestic LPG: From Rs. 506.06 to Rs. 449.13/cylinder)
- During May 2014, Crude oil (including condensate) production was lower by 2.2% and Gross Natural Gas production was lower by 2.3% as compared to May 2013
- Crude oil imports: Reduced crude oil imports during May 2014 by 12.9%. During May 2014, about 1.0 MMT (0.7 billion US\$) less crude imports by IOCL from Iraq
- POL Trade: During May 2014, petroleum products export has shown a de-growth of -8.8% as compared to May 2013; and there was de-growth of -2.5% in POL imports mainly due to lower imports of LOBS (-32%) and Bitumen (-54%)
- There is a de-growth of 2.4% in crude oil processing due to planned refinery shutdown of RIL during May 2014, resulting in de-growth of 2.1% in POL production
- Import dependency of crude oil during May 2014 is 79.9% based on domestic consumption
- Consumption of petroleum products grew by 1.5% during May 2014. After November 2013, for the first time HSD registered a positive growth of 1.3%

1. Selected Indicators of the Indian Economy

Economic Indicators		Unit/Base	2011-12	2012-13	2013-14 (P)
1	Population (as on 1 st March 2011)	Billion	1.2	-	-
2	GDP at Factor Cost (Constant prices)	Growth %	6.3 2 nd RE	4.5 1 st RE	4.9 AE
3	Agricultural Production (Food grains)	MMT	259.3	257.1 FE	264.4 3 rd AE
		Growth %	6.1	-0.8	2.8
4	Index of Industrial Production	Growth %	2.8	1.1	-0.1
5	Gross Fiscal Deficit	%	-5.75	-5.2	-4.6 (RE)

Economic Indicators		Unit/Base	2013-14	May		April-May	
				2013	2014	2013	2014
6	Imports	\$ Billion	450.9	44.3	39.2	86.3	75.0
7	Exports	\$ Billion	312.4	24.9	28.0	49.3	53.6
8	Trade Balance	\$ Billion	-138.6	-19.4	-11.2	-37.0	-21.4
9	Foreign Exchange Reserves	\$ Billion	303.7	287.9	312.4	-	-

2. Import Dependency							
Petroleum & Natural Gas Sector		Unit/Base	2013-14 (P)	May		April-May	
				2013	2014 (P)	2013	2014 (P)
1	Crude Oil Production In India	MMT	37.8	3.2	3.2	6.3	6.3
2	Consumption of Petroleum Products In India	MMT	158.2	14.2	14.5	27.4	27.9
3	Production of Petroleum Products In India	MMT	220.2	18.5	18.1	36.1	35.2
4	Imports & Exports:						
	Crude Oil Imports	\$ Billion	143.8	12.4	11.3	24.6	23.8
	Petroleum Products (POL) : Imports	\$ Billion	12.0	1.0	1.1	1.9	2.2
	Gross Petroleum Imports (Crude + POL)	\$ Billion	155.8	13.4	13.5	26.5	26.0
	Petroleum Products Exports	\$ Billion	61.1	4.7	4.6	8.9	8.8
5	Petroleum Imports as % of India's Gross Imports	%	34.5	30.2	34.4	30.7	34.7
6	Petroleum Exports as % of India's Gross Exports	%	19.6	18.9	16.4	18.1	16.4
7	Import Dependency (Based on Consumption)	%	77.6	78.7	79.9	78.2	79.9

3. Indigenous Crude Oil Production (Million Metric Tonne)					
Details	2013-14 (P)	May		April-May	
		2013	2014 ^(P)	2013	2014 ^(P)
ONGC	19.2	1.65	1.60	3.25	3.14
OIL	3.5	0.30	0.29	0.60	0.56
Pvt / JVs	12.0	0.97	1.00	1.92	2.05
Total Crude Oil	34.7	2.92	2.9	5.77	5.75
Condensate	3.1	0.25	0.28	0.51	0.52
Total (Crude Oil +Condensate) (MMT)	37.8	3.17	3.18	6.28	6.27
Total (Crude Oil +Condensate) (Million Barrels)	277.04	23.25	23.3	46.02	45.95
4. Domestic Oil & Gas Production vis a vis Overseas Production					
Year	2013-14 (P)	May		April-May	
		2013	2014 ^(P)	2013	2014 ^(P)
Total Domestic (MMTOE)	73.2	6.2	6.1	12.3	12.0
Overseas production of OVL (MMTOE)	8.4	0.74	0.77	1.44	1.54
Overseas Production as % of Domestic	11.5%	11.9%	12.6%	11.7%	12.8%
5. Coal Bed Methane (CBM) Gas development in India					
Prognosticated CBM Resources			92		TCF
Established CBM resources			8.92		TCF
Total available Coal bearing area			26000		Sq. KM
Exploration Initiated			17000		Sq. KM
Blocks Awarded*			33		Nos.
Commercial production of CBM gas			0.23		MMSCMD

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

	Company	Refinery	Installed Capacity (1.4.2014)	Crude Oil Processing				
				2013-14 (^P)	May		April-May	
					2013	2014 (^P)	2013	2014 (^P)
1	IOCL	Barauni	6.0	6.5	0.5	0.6	0.9	1.1
2		Koyali	13.7	13.0	1.2	1.2	2.1	2.3
3		Haldia	7.5	8.0	0.7	0.7	1.3	1.3
4		Mathura	8.0	6.6	0.7	0.8	1.4	1.5
5		Panipat	15.0	15.1	1.4	0.8	2.5	2.1
6		Guwahati	1.0	1.0	0.1	0.1	0.2	0.2
7		Digboi	0.7	0.7	0.1	0.1	0.1	0.1
8		Bongaigaon	2.4	2.3	0.2	0.2	0.4	0.4
		IOCL TOTAL	54.2	53.1	4.8	4.3	8.9	8.9
9	HPCL	Mumbai	6.5	7.7	0.5	0.3	1.1	0.9
10		Visakhapatnam	8.3	7.8	0.5	0.6	1.2	1.2
11	HMEL	HMEL-Bhatinda	9.0	9.3	0.8	0.9	1.4	1.7
		HPCL-TOTAL	23.8	24.8	1.8	1.8	3.7	3.8
12	BPCL	Mumbai	12.0	12.7	1.1	1.0	1.8	1.8
13		Kochi	9.5	10.3	0.9	0.7	1.8	1.6
14	BORL	Bina	6.0	5.4	0.4	0.4	0.9	0.9
		BPCL-TOTAL	27.5	28.4	2.4	2.2	4.1	4.3

	Company	Refinery	Installed Capacity (1.4.2014)	Crude Oil Processing				
				2013-14 (P)	May		April-May	
					2013	2014 (P)	2013	2014 (P)
15	CPCL	Manali	10.5	10.1	0.9	0.9	1.9	1.8
16		CBR	1.0	0.6	0.03	0.1	0.06	0.1
		CPCL-TOTAL	11.5	10.6	1.0	1.0	1.9	1.9
17	NRL	Numaligarh	3.0	2.6	0.2	0.3	0.5	0.5
18	ONGC	Tatipaka	0.1	0.1	0.01	0.003	0.01	0.007
19		MRPL-Mangalore	15.0	14.6	1.0	1.0	2.2	2.1
		ONGC TOTAL	15.1	14.7	1.0	1.0	2.2	2.1
20	RIL	Jamnagar (DTA)	33.0	30.3	2.9	2.8	5.1	4.6
21		Jamnagar (SEZ)*	27.0	37.7	3.2	3.1	6.3	6.3
22	EOL	Vadinar	20.0	20.2	1.8	1.7	3.5	3.4
		All India	215.1	222.4	18.6	18.2	36.6	35.8

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

	Type of crude	2013-14 (P)	May		April-May	
			2013	2014 (P)	2013	2014 (P)
2	LS Crude	64.1	5.1	4.9	10.0	9.8
	Total Crude	222.4	18.6	18.2	36.6	35.9
	Share of HS Crude of total crude processing	72.0%	72.6%	72.3%	72.6%	72.7%

8. Gross Refining Margins (GRM) of Refineries (\$/bbl)

Company	Refinery	2011-12	2012-13	2013-14
IOCL	Barauni	0.39	2.40	6.68
	Koyali	5.07	4.61	4.52
	Haldia	2.38	0.85	2.84
	Mathura	0.59	0.55	2.10
	Panipat	4.39	3.34	3.62
	Guwahati	11.94	9.52	6.38
	Digboi	14.85	20.81	15.41
	Bongaigaon	6.25	5.26	6.71
	Average	3.63	3.16	4.24
BPCL	Kochi	3.20	5.36	4.80
	Mumbai	3.12	4.67	3.95
	Average	3.16	4.97	4.33
HPCL	Mumbai	1.74	2.08	5.38
	Visakhapatnam	2.95	2.08	1.50
	Average	2.39	2.08	3.43
CPCL	Chennai	4.16	0.99	4.06
MRPL	Mangalore	5.60	2.45	2.67
NRL	Numaligarh	12.45	10.52	12.09
BORL	Bina	-	7.00	7.70
RIL	Jamnagar	8.60	9.20	8.10
Essar	Vadinar	4.23	7.96	7.98

9. GRM of North East Refineries excluding Excise Duty Benefit				
				\$/bbl
Company	Refinery	2011-12	2012-13	2013-14
IOCL	Guwahati	3.73	3.42	0.88
	Digboi	6.41	13.25	8.50
	Bongaigaon	0.56	0.27	2.34
NRL	Numaligarh	5.80	4.83	6.98

10. Natural Gas at a Glance					
<i>(MMSCM)</i>					
	2013-14 <i>(P)</i>	May		April-May	
		2013	2014 <i>(P)</i>	2013	2014 <i>(P)</i>
Gross Production	35390.91	3009.05	2938.75	6010.43	5709.30
Net Production (Excluding Flair Gas)	34554.64	2941.07	2870.55	5886.78	5567.70
LNG Import	14257.0	1204.43	1291.88	2676.5	2672.52
Total Consumption (Net Production + Import)	48811.64	4145.50	4162.43	8563.28	8240.22
Total Consumption (in BCM)	48.81	4.14	4.16	8.56	8.24

(Reliance import figure is not included)

11. Consumption of Petroleum Products (Million Metric Tonnes)								
Products	May 2013		May 2014 ^(P)		April-May 2013		April-May 2014 ^(P)	
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
LPG	0.8	1.3	0.8	1.4	1.6	2.5	1.6	2.8
MS	2.5	1.7	2.5	1.7	4.9	3.0	4.8	3.2
NAPHTHA	1.5	0.9	1.5	1.0	3.1	1.8	3.1	1.9
ATF	0.9	0.5	0.8	0.5	1.9	0.9	1.6	0.9
SKO	0.6	0.6	0.6	0.6	1.3	1.2	1.2	1.2
HSD	8.1	6.4	7.8	6.5	15.4	12.5	15.1	12.4
LDO	.03	0.03	0.0	0.02	0.1	0.1	0.1	0.1
LUBES	0.1	0.3	0.0	0.2	0.1	0.5	0.1	0.4
FO/LSHS	1.1	0.5	1.1	0.5	2.1	1.1	1.9	1.0
BITUMEN	0.5	0.6	0.5	0.6	1.1	1.1	1.1	1.1
OTHERS	2.4	1.5	2.5	1.5	4.6	2.7	4.7	2.9
ALL INDIA	18.5	14.2	18.1	14.5	36.1	27.4	35.2	27.9
Growth (%)			-2.1	1.5			-2.4	1.7

12. Self Sufficiency in Petroleum Products (Million Metric Tonnes)					
Details	2013-14 ^(P)	May		April-May	
		2013	2014 ^(P)	2013	2014 ^(P)
1. Indigenous Crude Oil Processing (Including Condensate):	33.9	3.2	3.2	6.3	6.3
a) Products from Indigenous Crude (93.3% of crude oil processed)	31.6	2.7	2.6	5.3	5.0
b) Products from Fractionators (Including LPG and Gas)	3.8	0.3	0.3	0.7	0.6
2. Total Production from Indigenous Crude & Condensate (a + b)	35.5	3.0	2.9	6.0	5.6
3. Total Domestic Consumption	158.2	14.2	14.5	27.4	27.9
% Self Sufficiency (2 / 3)	22.4	21.3	20.1	21.8	20.1

13. 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	12503	12869	1400	1382	98	3	52248
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
CNG Stations (Nos.)	140	208	189		29		239	805
RGGLVY (Nos.)	1421	817	798					3036
LPG Consumers (Nos. Crores)	8.18	4.12	4.33					16.63

14. 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	2693	14083
	Cap (MMTPA)	-	1.7	-	-	36.6	10.8	20.5	8.7	78.3

Others include GAIL and Petronet India

15. Information on Prices, Taxes and Under-recoveries

Sales & profit of Petroleum Sector (Rs. Crores)		
2013-14	Turnover	PAT
Upstream Companies	149527	29451
Downstream Cos.	955147	12814
Standalone Refineries	130373	668
Private/JVs	499655	22110

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	2.5%	Rs.9.48/Ltr
Diesel	2.5%	Rs.3.56/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.) at Delhi		
	Petrol	Diesel
Price before taxes and dealer comm.	47.12	44.98
Central taxes	10.39	4.50
State taxes	11.90	6.61
Dealer comm.	2.0	1.19
Retail Selling Price	71.41	57.28
	PDS SKO	Sub. Dom LPG
Price before taxes and dealer comm.	12.96	373.41
Central taxes	0.00	0.00
State taxes	0.71	0.00
Dealer comm.	1.29	40.71
Retail Selling Price	14.96	414.00

Change in Ex. Rate/ Crude price : Impact on Under-recoveries		
(Rs. Crores)	Rs.1/\$ Ex. Rate	\$1/bbl Crude
Impact on Under-recovery	7800	4300

15. Information on Prices, Taxes and Under-recoveries

Under-recoveries & Burden Sharing			
	2011-12	2012-13	2013-14
Per unit under-recovery (Rs./litre/Cyl.)			
Diesel	10.39	11.26	8.39
PDS SKO	26.46	31.16	33.98
Sub. Dom LPG	320.30	427.14	499.52
Total Under-recoveries (Rs. Crores)			
Diesel	81192	92061	62837
PDS SKO	27352	29410	30575
Sub. Dom LPG	29997	39558	46458
Total	138541	161029	139869
Burden Sharing (Rs. Crores)			
Govt.	83500	100000	70772
Upstream	55000	60000	67021
OMCs	41	1029	2076
Fiscal Subsidy under Govt. Schemes (Rs. Crores)			
PDS SKO	868	746	681
Sub. Dom LPG	2155	2007	1920
Subsidy as a % of GDP			
Petroleum Subsidy	1.70	1.75	1.37

International Prices/ Exchange rates (\$/bbl)			
	2011-12	2012-13	2013-14
Crude (Indian Basket)	111.89	107.97	105.52
Petrol	121.60	118.98	114.31
Diesel	125.38	121.97	119.41
Kerosene	125.99	123.11	118.80
LPG (\$/MT)	899.42	885.2	880.49
FO (\$/MT)	667.41	632.52	595.79
Naphtha (\$/MT)	931.61	888.49	881.30
Exchange (Rs./\$)	47.95	54.45	60.50
Petroleum Sector Contribution to Central/State Govt.			
Central Government	119850	117422	123316
State Government	112919	126516	140881
Total (Rs. Crores)	232769	243939	264197
Borrowings of OMCs (Rs. Crores)			
IOCL	75447	80894	83174
BPCL	22994	23839	16739
HPCL	29831	33789	34196

16. 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