Ready Reckoner

Snapshot of India's Oil & Gas data

November, 2014

Analysis • Knowledge • Information

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas)

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Highlights

• On cumulative basis, there is marginal reduction of 0.2 MMT in production of crude oil (i.e. 0.8%).
• MA-8 well was closed for 24 hours on 16.11.2014 for buildup study. MA-6H well in KG-DWN-98/3 field block is underperforming. In MA field, 4 wells are closed due to water loading and 10 wells in D1 D3 gas fields are closed higher water cut and sand ingress.
• On cumulative basis, there is marginal reduction of 0.37 MMT in production of Petroleum Products by Refineries (i.e. 0.25%).
• At IOCL Barauni, AVU-2, AVU-3, DHDT, HGU-1 and CCR of Kochi Refinery was under planned shutdown for 30 days w.e.f. 16-19.11.2014 and 12.11.2014 respectively.
• The consumption of all petroleum products has registered a growth of 4.9% in November, 2014 as compared to that in November, 2013 and a cumulative growth of 3.7% during April-November, 2014 (increase of 3.88 MMT).
• There has been a growth 3.6% growth in the consumption of MS during November, 2014 and a cumulative growth of 9.5% for April-November, 2014.
• HSD consumption has recorded a growth of 3.0% in the month of November, 2014 and a cumulative growth of 1.0% during April-November, 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 1st March 2011)	Billion	1.2	-	-	-
2	GDP at Factor Cost (Constant prices)	Growth %	6.7 2nd RE	4.5 1st RE	4.9 H1	5.5 H1
3	Agricultural Production (Food grains)	MMT	259.3	257.1	264.8 4th AE	120.3 Ist 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	November		April-November	
				2013	2014	2013	2014
5	Index of Industrial Production@	Growth %	2.8	-1.2	-4.2	0.2	1.9
6	Imports	$ Billion	450.9	33.8	42.8	302.3	316.4
7	Exports	$ Billion	312.4	24.2	26.0	205.4	215.8
8	Trade Balance	$ Billion	-138.6	-9.6	-16.8	-96.9	-100.6
9	Foreign Exchange Reserves	$ Billion	303.7	291.3	316.3		

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

2. Import Dependency

Petroleum & Natural Gas Sector		Unit/Base	2013-14 (P)	November		April-November	
				2013	2014 (P)	2013	2014 (P)
1	Crude Oil Production In India	MMT	37.8	3.1	3.1	25.2	25.0
2	Consumption of Petroleum Products	MMT	158.4	13.3	13.9	104.2	108.0
3	Production of Petroleum Products	MMT	220.2	17.5	18.9	146	145.6
4	Imports & Exports:						
	Crude Oil Imports	$ Billion	142.9	11.2	8.8	95.4	89.3
	Petroleum Products (POL) Imports	$ Billion	12.3	0.8	0.9	7.5	8.8
	Gross Petroleum Imports (Crude + POL)	$ Billion	155.2	12.0	9.7	103.0	98.1
	Petroleum Products Exports	$ Billion	60.7	4.7	4.6	41.0	37.3
5	Petroleum Imports as % of India's Gross Imports	%	34.4	35.5	22.6	34.1	31.3
6	Petroleum Exports as % of India's Gross Exports	%	19.4	19.4	17.7	20.0	17.3
7	Import Dependency (Based on Consumption)	%	77.6%	77.4%	78.0%	77.3%	78.1%

3. Estimated Balance of Trade during 2014-15

Petroleum & Natural Gas Sector	Quantity (MMT)	$ Million	Rs. Crore
Net Imports (Crude, POL & LNG)	142.57	103,366	625,363

(Considering Indian Crude basket at 105.52/bbl and average exchange rate of Rs. 60.50/$)

- If Crude prices increases by One $/bbl - Net Import bill increases by Rs. 8,345 crores ($ 1.38 bn)
- If Exchange rate of $ increases by Rs. 1/$ - Net Import bill increases by Rs. 10,337 crores ($ 1.71 bn)

4. Indigenous Crude Oil Production (Million Metric Tonne)					
Details	**2013-14 (P)**	**November**		**April-November**	
		2013	**2014 (P)**	**2013**	**2014 (P)**
ONGC	19.2	1.6	1.5	12.8	12.5
OIL	3.5	0.3	0.3	2.4	2.3
Private / JVs	12.0	1.0	1.0	7.9	7.8
Total Crude Oil	**34.7**	**2.9**	**2.8**	**23.1**	**22.6**
Condensate	3.1	0.3	0.3	2.0	2.4
Total (Crude Oil + Condensate) (MMT)	**37.8**	**3.1**	**3.1**	**25.2**	**25.0**
Total (Crude Oil + Condensate) (Million Barrels)	277.04	23.0	23.0	184.5	183.0

5. Domestic Oil & Gas Production vis a vis Overseas Production					
Year	**2013-14 (P)**	**November**		**April-November**	
		2013	**2014 (P)**	**2013**	**2014 (P)**
Total Domestic (MMTOE)	73.2	6.0	5.9	48.9	47.4
Overseas production of OVL (MMTOE)	8.4	0.650	0.726	4.764	5.023
Overseas Production as % of Domestic	11.5%	10.8%	12.3%	9.7%	10.6%

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)	**November**		**April-November**	
					2013	**2014 (P)**	**2013**	**2014 (P)**
1	IOCL	Barauni	6.0	6.5	0.6	0.4	4.3	4.1
2		Koyali	13.7	13.0	1.2	1.1	8.4	8.9
3		Haldia	7.5	8.0	0.6	0.7	5.2	5.1
4		Mathura	8.0	6.6	0.2	0.7	4.2	5.6
5		Panipat	15.0	15.1	1.3	1.3	10.0	9.1
6		Guwahati	1.0	1.0	0.1	0.1	0.7	0.7
7		Digboi	0.7	0.7	0.1	0.1	0.4	0.4
8		Bongaigaon	2.4	2.3	0.2	0.2	1.5	1.5
		IOCL TOTAL	**54.2**	**53.1**	**4.2**	**4.5**	**34.8**	**35.5**
9	HPCL	Mumbai	6.5	7.7	0.6	0.6	5.1	4.7
10		Visakhapatnam	8.3	7.8	0.5	0.8	4.7	5.6
11	HMEL	HMEL-Bhatinda	9.0	9.3	0.9	0.9	6.0	4.3
		HPCL-TOTAL	**23.8**	**24.8**	**2.1**	**2.3**	**15.8**	**14.5**
12	BPCL	Mumbai	12.0	12.7	1.1	1.2	8.5	8.3
13		Kochi	9.5	10.3	0.7	0.8	7.0	7.0
14	BORL	Bina	6.0	5.4	0.5	0.6	3.7	4.1
		BPCL-TOTAL	**27.5**	**28.4**	**2.4**	**2.6**	**19.2**	**19.4**

	Company	Refinery	Installed Capacity (1.4.2014)	Crude Oil Processing				
				2013-14 (P)	November		April-November	
					2013	2014 (P)	2013	2014 (P)
15	CPCL	Manali	10.5	10.1	0.7	0.9	6.7	6.7
16		CBR	1.0	0.6	0.1	0.04	0.3	0.4
		CPCL-TOTAL	**11.5**	**10.7**	**0.8**	**0.9**	**7.1**	**7.1**
17	NRL	Numaligarh	3.0	2.6	0.3	0.2	1.7	1.9
18	ONGC	Tatipaka	0.1	0.1	0.01	0.01	0.04	0.03
19		MRPL-Mangalore	15.0	14.6	1.1	1.3	9.4	9.2
		ONGC TOTAL	**15.1**	**17.3**	**1.3**	**1.5**	**11.1**	**11.1**
20	RIL	Jamnagar (DTA)	33.0	30.3	2.6	2.7	21.2	20.8
21		Jamnagar (SEZ)	27.0	37.7	3.1	3.0	25.1	25.0
22	EOL	Vadinar	20.0	20.2	1.3	1.7	13.4	13.6
	All India		**215.1**	**222.4**	**17.7**	**19.2**	**147.7**	**147.0**

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

	Type of crude	2013-14 (P)	November		April-November	
			2013	2014 (P)	2013	2014 (P)
1	HS Crude	160.2	12.6	13.8	106.9	105.8
2	LS Crude	62.2	5.2	5.4	40.9	41.2
Total Crude		**222.5**	**17.7**	**19.2**	**147.7**	**147.0**
Share of HS Crude of total crude processing		**72.04%**	**70.7%**	**71.9%**	**72.3%**	**72.0%**

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)	**November**		**April-November**	
		2013	**2014 (P)**	**2013**	**2014 (P)**
Gross Production	35390.91	2893.28	2810.34	23680.44	22442.54
Net Production (Excluding Flair Gas)	34554.64	2820.08	2728.98	23112.15	21826.31
LNG Import	**14257.0**	**1127.57**	**1237.55**	**9512.17**	**10691.42**
Total Consumption (Net Production + Import)	**48811.6**	**3947.65**	**3966.53**	**32624.32**	**32517.73**
Total Consumption (in BCM)	**48.81**	**3.94**	**3.96**	**32.62**	**32.51**

(Reliance import figure is not included)

12. Consumption of Petroleum Products (Million Metric Tonnes)								
Products	**November 2013**		**November 2014 (P)**		**Apr-Nov. 2013**		**Apr-Nov. 2014 (P)**	
	Production	**Consumption**	**Production**	**Consumption**	**Production**	**Consumption**	**Production**	**Consumption**
LPG	0.8	1.4	0.9	1.6	6.3	10.5	6.2	11.6
MS	2.4	1.5	2.7	1.5	20.2	11.4	21.2	12.5
NAPHTHA	1.4	1.0	1.5	0.7	12.3	7.4	11.8	7.1
ATF	1.0	0.5	1.0	0.5	7.5	3.6	7.1	3.7
SKO	0.6	0.6	0.6	0.6	4.9	4.8	5.2	4.7
HSD	7.2	5.8	8.3	6.0	61.8	45.3	62.4	45.8
LDO	0.03	0.03	0.02	0.02	0.3	0.3	0.2	0.2
LUBES	0.1	0.2	0.1	0.2	0.6	2.0	0.5	1.9
FO/LSHS	1.0	0.5	1.0	0.5	9.2	4.2	8.1	4.0
BITUMEN	0.3	0.4	0.4	0.4	2.8	2.8	2.9	2.9
OTHERS	2.5	1.4	2.5	1.9	19.9	11.8	19.9	13.4
ALL INDIA	**17.5**	**13.3**	**18.9**	**13.9**	**146.0**	**104.2**	**145.6**	**108.0**
Growth (%)	**-5.1%**	**2.4%**	**7.9%**	**4.9%**	**2.1%**	**0.6%**	**-0.3%**	**3.7%**

13. Self Sufficiency in Petroleum Products (Million Metric Tonnes)					
Details	**2013-14 (P)**	**November**		**April-November**	
		2013	**2014 (P)**	**2013**	**2014 (P)**
1. Indigenous Crude Oil Processing :	33.9	2.9	2.9	22.6	22.7
a) Products from Indigenous Crude *(93.3% of crude oil processed)*	31.6	2.7	2.7	21.1	21.2
b) Products from Fractionators (Including LPG and Gas)	3.8	0.3	0.3	2.6	2.5
2. Total Production from Indigenous Crude & Condensate **(a + b)**	35.5	3.0	3.1	23.7	23.7
3. Total Domestic Consumption	158.4	13.3	13.9	104.2	108.0
% Self Sufficiency (2 / 3)	**22.4%**	**22.6%**	**22.0%**	**22.7%**	**21.9%**

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	2693	**14083**
	Cap (MMTPA)	-	1.7	-	-	36.6	10.8	20.5	8.7	**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.13.34/Ltr
Diesel	2.50%	Rs.6.14/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.	35.12	36.58
Central taxes	13.95	6.81
State taxes	10.22	5.86
Dealer comm.	2.04	1.26
Retail Selling Price	61.33	50.51
	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	1500	1100

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-Sept14
Crude (Indian Basket)	107.97	105.52	101.71
Petrol	118.98	114.31	112.60
Diesel	121.97	119.41	113.03
Kerosene	123.11	118.80	113.26
LPG ($/MT)	885.20	880.49	797.75
FO ($/MT)	632.52	595.79	573.02
Naphtha ($/MT)	888.49	881.30	876.12
Exchange (Rs./$)	54.45	60.50	60.59

Borrowings of OMCs (Rs. Crores)

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 BCM/year of Gas	2.74 MMSCMD
1 TCF of Gas Reserve	3.88 MMSCMD
1 MMTPA of LNG	3.60 MMSCMD
1 MT of LNG	1314 SCM

1 MMBTU	25.2 SCM @10000 kcal/SCM
GCV (Gross Calorific Value	10000 kcal/SCM
NCV (Net Calorific Value)	90% of GCV
Gas required for 1 MW power generation	4128 SCM/day
Power generation from 1 MMSCMD of gas	242 MW