Ready Reckoner

Snapshot of India’s Oil & Gas data

October, 2019

Analysis • Knowledge • Information

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

As on 21.11.2019

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Highlights for the month

- Indigenous crude oil and condensate production during October 2019 was lower by 5.1% than that of October 2018 as compared to a de-growth of 5.4% during September 2019. OIL, ONGC and PSC registered lower production of 3.7%, 3% and 10% respectively during October2019 as compared to October2018. On cumulative basis indigenous crude oil and condensate production of the country was lower by 5.8% during April-October2019 as compared to the corresponding period of the previous year.
- Crude oil processed during October 2019 was 21.9 MMT, which was 0.2% higher than October 2018 as compared to a de-growth of 6.9% during September 2019. On cumulative basis total crude oil processed was lower by 1.9% during April-October 2019 as compared to the corresponding period of the previous year. Indian refineries processed 76.4% high sulphur crude during October 2019 as compared to 74.1% during October 2018.
- Production of petroleum products saw a growth of 0.4% during October 2019 and de-growth of 1.7% during April-October 2019 as compared to the corresponding period of the previous year
- Crude oil imports decreased by 8.5% and 2.4% during October 2019 and April-October 2019 respectively as compared to the same period of the previous year.
- POL products imports increased by 67.2% and 34.2% during October 2019 and April-October 2019 respectively as compared to the same period of the previous year. Increase in POL products imports during April-October 2019 was due to increase in imports of all products except naphtha and aviation turbine fuel (ATF).
- Exports of POL products increased by 4% and 2.8% during October 2019 and April – October 2019 as compared to the same period of the previous year. Increase in POL products exports during April-October 2019 was mainly due to increase in exports of naphtha and high speed diesel (HSD).
- Petroleum product consumption registered a drop of 1.4% during October 2019 and a cumulative growth of 1% during April-October 2019. Except for LPG, MS, ATF and petcoke all other products registered de-growth during October 2019.

•	Total LPG consumption recorded a growth of 14.3% during October 2019 and a cumulative growth of 5.6% during April-October 2019. During October 2019, out of the five regions, Northern region had the highest share in total LPG consumption of 31% followed by Southern region at 28.1%, Western region at 22.3%, Eastern region at 16.1% and North Eastern region at 2.5%.
•	Total consumption of petrol registered a growth of 8.9% during October 2019 and a cumulative growth of 9.1% during April-October 2019.
•	Ethanol blending percentage as on 31st October 2019 during supply year 2018-19 has increased to 5.1% as compared to 4.2% during supply year 2017-18.
•	SKO consumption registered a drop of 41% during October 2019 and cumulative drop of 25% during April-October 2019. This was mainly because of reduced Q1, Q2 & Q3 2019-20 PDS SKO allocations to the states and voluntary surrender of some of the allocation by the states.
•	Gross production of natural gas for the month of October 2019 was 2641 MMSCM which was lower by 5.6% compared with the corresponding month of the previous year. The cumulative gross production of natural gas of 18646 MMSCM for the current financial year till October 2019 was lower by 2.1% compared with the corresponding period of the previous year.
•	LNG import for the month of October 2019 was 2685 MMSCM which was 8.1% higher than the corresponding month of the previous year. The cumulative import of 19031 MMSCM for the current year till October 2019 was higher by 8.4% compared with the corresponding period of the previous year.
•	The price of Brent Crude averaged $59.72/bbl during October, 2019 as against $62.77/bbl during September 2019 and $81.15/bbl during October 2018. The Indian basket crude price averaged $59.70/bbl during October 2019 as against $61.73/bbl during September 2019 and $80.08 /bbl during October 2018.

1. Selected indicators of the Indian economy

	Economic indicators	Unit/ Base	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Population (as on 1st May, 2011)	Billion	1.2	-	-	-	-	-
2	GDP at constant (2011-12 Prices)	Growth %	7.4	8.0 3rd RE	8.2 2nd RE	7.2 1st RE	6.8 PE	5.0 E (Q1)
3	Agricultural Production (Food grains)	MMT	252.0	251.5	275.1	285.0 FE	285.0 4th AE	140.6 1st AE (Kharif@)
		Growth %	-4.9	-0.2	9.4	3.6	0.0	-0.7
4	Gross Fiscal Deficit (as percent of GDP)	%	4.1	3.9	3.5	3.5	3.4 RE	3.4 BE

	Economic indicators	Unit/ Base	2017-18	2018-19	October		April-October	
					2018-19	2019-20	2018-19	2019-20
5	Index of Industrial Production (Base: 2011-12)	Growth %	4.4	3.6	4.6*	-4.3* QE	5.2#	1.3#
6	Imports	$ Billion	465.6	514.1	44.7	37.4	306.3	280.7
7	Exports	$ Billion	303.5	330.1	26.7	26.4	190.2	186.0
8	Trade Balance	$ Billion	-162.1	-184.0	-18.0	-11.0	-116.2	-94.7
9	Foreign Exchange Reserves @	$ Billion	424.4	411.9	392.1	442.6	-	-

@Kharif 2018-19- 141.59 (1st AE); IIP is for the month of *September, #April-September; @2017-18-as on March 30, 2018, 2018-19-as on March 29, 2019, October 2018- as on October 26, 2018 and October 2019-as on October 25, 2019; E-Estimates; AE-Advanced Estimates; RE-Revised Estimates; QE-Quick Estimates; FE: Final Estimates; PE: Provisional Estimates.

Source: Ministry of Commerce & Industry, Ministry of Statistics and Programme Implementation, Ministry of Agriculture & Farmer's Welfare, Reserve Bank of India

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

	Details	Unit/ Base	2017-18	2018-19	October		April-October	
					2018-19	2019-20 (P)	2018-19	2019-20 (P)
1	Crude oil production in India	MMT	35.7	34.2	2.9	2.7	20.3	19.1
2	Consumption of petroleum products	MMT	206.2	213.2	17.7	17.4	121.9	123.2
3	Production of petroleum products	MMT	254.3	262.4	22.6	22.7	153.4	150.9
4	Gross natural gas production	MMSCM	32,649	32,875	2,798	2,641	19,052	18,646
5	Natural gas consumption	MMSCM	59,170	60,798	5,207	5,254	36,148	37,139
6	Imports & exports:							
	Crude oil imports	MMT	220.4	226.5	21.1	19.3	134.0	130.7
		$ Billion	87.8	111.9	11.7	8.4	70.3	60.9
	Petroleum products (POL) imports	MMT	35.5	33.3	2.1	3.5	18.0	24.2
		$ Billion	13.6	16.3	1.4	1.4	9.7	10.0
	Gross petroleum imports (Crude + POL)	MMT	255.9	259.8	23.2	22.8	152.0	154.9
		$ Billion	101.4	128.3	13.1	9.8	80.0	70.9
	Petroleum products exports	MMT	66.8	61.1	5.7	6.0	36.4	37.5
		$ Billion	34.9	38.2	4.0	3.3	24.4	21.4
	LNG imports	MMSCM	27,439	28,740	2,484	2,685	17,562	19,031
		$ Billion	8.1	10.3	1.0	0.8	6.3	5.5
7	Petroleum imports as percentage of India's gross imports (in value terms)	%	21.8	24.9	29.4	26.3	26.1	25.3
8	Petroleum exports as percentage of India's gross exports (in value terms)	%	11.5	11.6	15.1	12.6	12.8	11.5
9	Import dependency of crude (on consumption basis)	%	82.9	83.8	83.2	84.1	83.3	84.5

September - October 2019 private import (POL) quantity is prorated on the basis of September 2018 - August 2019 actual data provided by DGCIS.
Note: Crude oil imports ($ Billion) during 2018-19 does not include value of crude oil quantity of 0.8 MMT imported at ISPRL, Mangalore.

3. Indigenous crude oil production (Million Metric Tonnes)

Details	2017-18	2018-19	October			April-October		
			2018-19	2019-20 (Target)*	2019-20 (P)	2018-19	2019-20 (Target)*	2019-20 (P)
ONGC	20.8	19.6	1.6	1.8	1.6	11.6	12.4	11.1
Oil India Limited (OIL)	3.4	3.3	0.3	0.3	0.3	2.0	2.0	1.9
Private / Joint Ventures (JVs)	9.9	9.6	0.8	0.8	0.7	5.7	5.7	5.1
Total Crude Oil	**34.0**	**32.5**	**2.7**	**3.0**	**2.6**	**19.3**	**20.1**	**18.1**
ONGC condensate	1.5	1.5	0.1		0.1	0.9		0.8
PSC condensate	0.2	0.2	0.02		0.02	0.1		0.1
Total condensate	**1.6**	**1.7**	**0.1**		**0.1**	**1.0**		**1.0**
Total (Crude + Condensate) (MMT)	**35.7**	**34.2**	**2.9**	**3.0**	**2.7**	**20.3**	**20.1**	**19.1**
Total (Crude + Condensate) (Million Bbl)	**261.6**	**250.7**	**21.1**	**21.6**	**20.1**	**148.8**	**147.3**	**140.1**

*Target is inclusive of condensate.

4. Domestic oil & gas production vis-à-vis overseas production

Details	2017-18	2018-19	October		April-October	
			2018-19	2019-20 (P)	2018-19	2019-20 (P)
Total domestic production (MMTOE)	68.3	67.1	5.7	5.4	39.3	37.8
Overseas production (MMTOE)	22.7	24.7	2.1	2.1	14.1	14.4
Overseas production as percentage of domestic production	**33.2%**	**36.8%**	**36.2%**	**38.1%**	**35.8%**	**38.3%**

Source: ONGC Videsh, GAIL, OIL , IOCL, HPCL & BPRL

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

	Details	2017-18	2018-19	October		April-October	
				2018-19	2019-20 (P)	2018-19	2019-20 (P)
1	High Sulphur crude	188.4	194.2	16.2	16.7	114.4	109.7
2	Low Sulphur crude	63.6	63.0	5.7	5.2	36.2	38.0
Total crude processed		**251.9**	**257.2**	**21.9**	**21.9**	**150.5**	**147.7**
Percentage share of HS crude in total crude oil processing		**74.8%**	**75.5%**	**74.1%**	**76.4%**	**76.0%**	**74.3%**

6. Quantity and value of crude oil imports			
Year	**Quantity (MMT)**	**$ Million**	**Rs. Crore**
2018-19	226.5	111,915	7,83,183
2019-20 (Estimated)	233.0	111,348	7,84,418

Note: 2019-20 imports are estimated based on April 2019- September 2019 at actuals and for October 2019- March 2020 at average price of Indian basket crude oil $66/bbl and average exchange rate for Rs.71/$.

Impact of variation in crude oil price & exchange rate on value of crude oil imports for October 2019 - March 2020 :

If crude prices changes by one $/bbl - Crude oil import bill changes by Rs. 6,328 crores

If exchange rate of Rs./$ changes by Rs. 1/$ - Crude oil import bill changes by Rs. 5,883 crores

7. Self-sufficiency in petroleum products (Million Metric Tonnes)								
Particulars		**2017-18**	**2018-19**	**October**		**April-October**	
				2018-19	**2019-20 (P)**	**2018-19**	**2019-20 (P)**
1	Indigenous crude oil processing	32.8	31.7	2.7	2.5	18.8	17.5
2	Products from indigenous crude (93.3% of crude oil processed)	30.6	29.6	2.5	2.4	17.5	16.4
3	Products from fractionators (Including LPG and Gas)	4.6	4.9	0.4	0.4	2.9	2.8
4	Total production from indigenous crude & condensate **(2 + 3)**	35.2	34.5	3.0	2.8	20.4	19.1
5	Total domestic consumption*	206.2	213.2	17.7	17.4	121.9	123.2
% Self-sufficiency (4 / 5)		**17.1%**	**16.2%**	**16.8%**	**15.9%**	**16.7%**	**15.5%**

*Total domestic consumption of petroleum products for FY 2018-19 are provisional

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

Company	Refinery	Installed capacity (1.11.2019) MMTPA	Crude oil processing (MMT)							
			2017-18	2018-19	October			April-October		
					2018-19	2019-20 (Target)*	2019-20 (P)	2018-19	2019-20 (Target)*	2019-20 (P)
IOCL	Barauni (1964)	6.0	5.8	6.7	0.6	0.6	0.5	3.8	3.8	3.7
	Koyali (1965)	13.7	13.8	13.5	1.3	1.3	1.3	7.8	7.0	6.8
	Haldia (1975)	7.5	7.7	8.0	0.7	0.4	0.4	4.7	4.3	4.3
	Mathura (1982)	8.0	9.2	9.7	0.9	0.8	0.9	5.7	5.9	6.1
	Panipat (1998)	15.0	15.7	15.3	1.4	1.4	1.3	9.6	8.7	8.4
	Guwahati (1962)	1.0	1.0	0.9	0.07	0.09	0.08	0.6	0.6	0.6
	Digboi (1901)	0.65	0.7	0.7	0.06	0.06	0.06	0.4	0.4	0.4
	Bongaigaon(1979)	2.35	2.4	2.5	0.2	0.1	0.2	1.4	1.3	1.4
	Paradip (2016)	15.0	12.7	14.6	1.3	1.4	1.4	7.9	9.3	9.1
	IOCL-TOTAL	**69.2**	**69.0**	**71.8**	**6.4**	**6.1**	**6.0**	**41.9**	**41.3**	**40.9**
CPCL	Manali (1969)	10.5	10.3	10.3	0.6	0.7	0.7	6.0	5.8	5.9
	CBR (1993)	1.0	0.5	0.4	0.0	0.0	0.0	0.2	0.0	0.0
	CPCL-TOTAL	**11.5**	**10.8**	**10.7**	**0.7**	**0.7**	**0.7**	**6.2**	**5.8**	**5.9**
BPCL	Mumbai (1955)	12.0	14.1	14.8	1.3	1.3	1.4	8.5	8.3	8.4
	Kochi (1966)	15.5	14.1	16.1	1.3	1.4	1.3	9.5	9.8	9.5
BORL	Bina (2011)	7.8	6.7	5.7	0.1	0.7	0.7	2.6	4.6	4.4
NRL	Numaligarh (1999)	3.0	2.8	2.9	0.3	0.3	0.2	1.7	1.8	1.6
	BPCL-TOTAL	**38.3**	**37.7**	**39.4**	**2.9**	**3.7**	**3.6**	**22.2**	**24.4**	**24.0**

Company	Refinery	Installed capacity (1.11.2019) (MMTPA)	Crude oil processing (MMT)							
			2017-18	2018-19	October			April-October		
					2018-19	2019-20 (Target)*	2019-20 (P)	2018-19	2019-20 (Target)*	2019-20 (P)
ONGC	Tatipaka (2001)	0.066	0.080	0.066	0.005	0.004	0.007	0.034	0.026	0.051
MRPL	Mangalore (1996)	15.0	16.1	16.2	1.5	1.5	1.4	9.1	8.2	7.4
	ONGC-TOTAL	**15.1**	**16.2**	**16.3**	**1.5**	**1.5**	**1.4**	**9.2**	**8.2**	**7.5**
HPCL	Mumbai (1954)	7.5	8.6	8.7	0.7	0.3	0.8	5.1	4.5	4.6
	Visakh (1957)	8.3	9.6	9.8	0.9	0.6	0.6	5.8	5.1	5.3
HMEL	Bathinda (2012)	11.3	8.8	12.5	1.1	0.9	1.1	7.3	6.4	7.0
	HPCL- TOTAL	**27.1**	**27.1**	**30.9**	**2.6**	**1.9**	**2.5**	**18.1**	**16.0**	**16.8**
RIL	Jamnagar (DTA) (1999)	33.0	33.2	31.8	2.8	2.8	2.9	19.2	19.2	18.4
	Jamnagar (SEZ) (2008)	35.2	37.3	37.4	3.2	3.2	2.9	21.4	21.4	22.0
NEL#	Vadinar (2006)	20.0	20.7	18.9	1.8	1.8	1.8	12.3	12.3	12.2
All India		**249.4**	**251.9**	**257.2**	**21.9**	**21.6**	**21.9**	**150.5**	**148.7**	**147.7**

#Nayara Energy Limited (formerly Essar Oil Limited). Note: Some sub-totals/ totals may not add up due to rounding off at individual levels.

9. Major crude oil and product pipeline network (as on 01.11.2019)

Details		ONGC	OIL	Cairn	HMEL	IOCL	BPCL	HPCL	Others*	Total
Crude Oil	Length (KM)	1,283	1,193	688	1,017	5,301	937	-	-	**10,419**
	Cap (MMTPA)	60.6	9.0	10.7	11.3	48.6	7.8	-	-	**147.9**
Products	Length (KM)	-	654	-	-	9,104	2,241	3,371	2,395	**17,765**
	Cap (MMTPA)	-	1.7	-	-	46.0	19.5	31.8	9.4	**108.4**

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

10. Gross Refining Margins (GRM) of refineries ($/bbl)					
Company	**Refinery**	**2016-17**	**2017-18**	**2018-19**	**H1, 2019-20**
IOCL	Barauni	6.52	6.60	3.86	1.75
	Koyali	7.55	9.44	4.87	2.32
	Haldia	6.80	6.86	5.36	2.21
	Mathura	7.01	7.09	4.65	2.12
	Panipat	7.95	7.74	4.66	2.42
	Guwahati **	22.14	21.88	16.35	17.06
	Digboi **	24.49	24.86	22.74	20.55
	Bongaigaon **	20.15	20.62	16.94	16.77
	Paradip #	4.22	7.02	4.46	1.57
	Weighted average	**7.77**	**8.49**	**5.41**	**2.96**
BPCL	Kochi	5.16	6.44	4.27	2.68
	Mumbai	5.36	7.26	4.92	3.58
	Weighted average	**5.26**	**6.85**	**4.58**	**3.10**
HPCL	Mumbai	6.95	8.35	5.79	3.33
	Visakhapatnam	5.51	6.55	4.31	0.67
	Weighted average	**6.20**	**7.40**	**5.01**	**1.87**
CPCL	Chennai	6.05	6.42	3.70	2.03
MRPL	Mangalore	7.75	7.54	4.06	0.23
NRL	Numaligarh **	28.56	31.92	28.11	25.58
BORL	Bina	11.80	11.70	9.80	6.20
RIL	Jamnagar	11.00	11.60	9.20	8.80
NEL@	Vadinar	9.14	8.95	6.97	*

*Not available; ** GRM of North Eastern refineries are including excise duty benefit. For GRM excluding excise duty benefit, refer table 11; # Commissioned in February, 2016; @Nayara Energy Limited (formerly Essar Oil Limited)

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

Company	Refinery	2016-17	2017-18	2018-19	H1, 2019-20
IOCL	Guwahati	1.12	3.70	0.63	-0.24
	Digboi	7.73	8.27	8.84	6.83
	Bongaigaon	6.03	6.22	4.21	2.25
NRL	Numaligarh	8.50	11.43	11.80	9.63

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

Products	2018-19		October 2018		October 2019 (P)		April-October 2018		April-October 2019 (P)	
	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons	Prod	Cons
LPG	12.8	24.9	1.1	2.1	1.2	2.4	7.4	14.1	7.3	14.9
MS	38.0	28.3	3.3	2.3	3.4	2.5	22.4	16.4	22.6	17.8
NAPHTHA	19.6	14.1	1.8	1.3	1.8	1.1	11.6	8.1	11.1	7.4
ATF	15.5	8.3	1.3	0.7	1.4	0.7	9.0	4.8	8.9	4.7
SKO	4.1	3.5	0.3	0.3	0.2	0.2	2.4	2.1	1.8	1.6
HSD	110.6	83.5	9.5	7.0	9.6	6.5	64.5	47.9	64.4	47.8
LDO	0.7	0.6	0.09	0.05	0.07	0.05	0.4	0.3	0.4	0.4
LUBES	0.9	3.7	0.07	0.4	0.08	0.3	0.6	2.0	0.5	2.2
FO/LSHS	10.0	6.6	0.9	0.6	0.9	0.5	5.8	3.8	5.8	3.5
BITUMEN	5.6	6.7	0.4	0.5	0.3	0.4	2.9	3.4	2.6	3.4
PET COKE	13.7	21.3	1.3	1.4	1.3	1.8	8.4	12.2	8.1	12.7
OTHERS	31.0	11.7	2.8	1.0	2.5	1.0	18.1	6.7	17.4	6.9
ALL INDIA	**262.4**	**213.2**	**22.6**	**17.7**	**22.7**	**17.4**	**153.4**	**121.9**	**150.9**	**123.2**
Growth (%)	**3.2%**	**3.4%**	**1.2%**	**2.1%**	**0.4%**	**-1.4%**	**5.8%**	**3.3%**	**-1.7%**	**1.0%**

Note: Prod - Production; Cons - Consumption

13. LPG consumption (Thousand Metric Tonne)

LPG category	2017-18	2018-19	October			April-October		
			2018-19	2019-20 (P)	Gr (%)	2018-19	2019-20 (P)	Gr (%)
1. PSU Sales :								
LPG-Packed Domestic	20,351.8	21,728.0	1,798.5	2,052.7	14.1	12,313.0	12,989.3	5.5
LPG-Packed Non-Domestic	2,085.8	2,364.4	198.1	240.2	21.3	1,315.2	1,474.9	12.1
LPG-Bulk	355.4	318.1	26.1	26.3	0.7	190.6	163.6	-14.2
Auto LPG	184.4	180.3	14.6	15.2	4.2	107.0	102.4	-4.3
Sub-Total (PSU Sales)	**22,977.4**	**24,590.8**	**2,037.3**	**2,334.4**	**14.6**	**13,925.8**	**14,730.2**	**5.8**
2. Direct Private Imports*	364.5	316.0	27.0	25.4	-6.0	195.0	180.5	-7.4
Total (1+2)	**23,341.8**	**24,906.8**	**2,064.3**	**2,359.8**	**14.3**	**14,120.8**	**14,910.7**	**5.6**

*September-October 2019 import data are prorated on the basis of September 2018 to August 2019 actual data provided by DGCIS.

14. Kerosene allocation vs upliftment (Kilo Litres)

Product	2016-17		2017-18		2018-19		H1, 2019-20 (P)	
	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment	Allocation	Upliftment
PDS Kerosene	69,33,030	66,78,447	50,21,828	46,69,160	44,32,994	41,52,112	18,02,848	16,40,446

15. Ethanol blending programme

Particulars	Ethanol Supply Year *			
	2015-16	2016-17	2017-18	2018-19 (P) (Dec 2018-October 2019)
Ethanol received by PSU OMCs under EBP Program (in Cr. Litrs)	111.4	66.5	150.5	177.6
Average Percentage of Blending Sales (EBP%)	3.5%	2.0%	4.2%	5.1%

*** Ethanol Supply Year** : Ethanol supplies take place between 1st December of the present year to 30th November of the following year.
Note: With effect from 01.04.2019, EBP Programme has been extended to whole of India except UTs of Andaman and Nicobar Islands and Lakshadweep.

16. Industry marketing infrastructure (as on 01.11.2019) (Provisional)

Particulars	IOCL	BPCL	HPCL	RIL	NEL[##]	SHELL	Others	Total
POL Terminal/ Depots **(Nos.)**[$]	125	78	83	18	3	-	6	**313**
Aviation Fuel Stations **(Nos.)**[@]	117	58	43	31	-	-	1	**250**
Retail Outlets (total) **(Nos.),**[^]	28,237	15,289	15,855	1,400	5,453	167	7	**66,408**
out of which Rural ROs	8,119	2,366	3,604	127	1,925	26	-	**16,167**
SKO/LDO agencies **(Nos.)**	3,886	1,001	1,638	-	-	-	-	**6,525**
LPG Distributors (total) **(Nos.) (PSUs only)**	12,182	6,026	5,996	-	-	-	-	**24,204**
LPG Bottling plants **(Nos.) (PSUs only)**[#]	90	51	49	-	-	-	3	**193**
LPG Bottling capacity **(TMTPA) (PSUs only)**[&]	9,726	4,242	4,317	-	-	-	173	**18,458**
LPG active domestic consumers* **(Nos. crore) (PSUs only)**	12.9	7.0	7.5	-	-	-	-	**27.4**

[$](RIL= 5 terminals and 13 depots, Others=4 MRPL & 2 NRL); [@](Others=ShellMRPL -1); [^](Others=MRPL-7); [#](Others=NRL-1, OIL-1, CPCL-1); [&](Others=NRL-30, OIL-23, CPCL-120); [##]Nayara Energy Limited (formerly Essar Oil Limited).

17. Natural gas at a glance

(MMSCM)

Details	2017-18	2018-19	October			April-October		
			2018-19	2019-20 (Target)	2019-20 (P)	2018-19	2019-20 (Target)	2019-20 (P)
(a) Gross production	32,649	32,875	2,798	2,885	2,641	19,052	19,917	18,646
- ONGC	23,429	24,677	2,110	2,144	1,954	14,128	14,721	14,026
- Oil India Limited (OIL)	2,881	2,722	235	288	239	1,601	1,986	1,624
- Private / Joint Ventures (JVs)	6,338	5,477	452	453	447	3,323	3,210	2,996
(b) Net production (excluding flare gas and loss)	31,731	32,058	2,723		2,569	18,586		18,108
(c) LNG import	27,439	28,740	2,484		2,685	17,562		19,031
(d) Total consumption including internal consumption (b+c)	59,170	60,798	5,207		5,254	36,148		37,139
(e) Total consumption **(in BCM)**	59.2	60.8	5.2		5.3	36.1		37.1
(f) Import dependency based on consumption (%), {c/d*100}	46.4	47.3	47.7		51.1	48.6		51.2

Note: September-October 2019 private import (LNG) quantity is prorated on the basis of September 2018-August 2019 actual data provided by DGCIS.

18. Coal Bed Methane (CBM) gas development in India			
Prognosticated CBM resources		92	TCF
Established CBM resources		9.9	TCF
Total available coal bearing areas		26,000	Sq. KM
Exploration initiated		16,613	Sq. KM
Blocks awarded		33	Nos.
Production of CBM gas	October 2019 (P)	53.6	MMSCM
Production of CBM gas	April-October 2019 (P)	379.9	MMSCM

19. Major natural gas pipeline network as on 01.11.2019							
Nature of pipeline		**GAIL**	**Reliance**	**GSPL**	**ARN^**	**IOCL**	**Total**
Natural gas	Length (KM)	12,160	1,774	2,692	215	140	**16,981**
	Cap (MMSCMD)	246	84	43	5	10	**387**

^Excludes CGD pipeline network

20. Existing LNG terminals			
Location	**Promoters**	**Capacity as on 01.10.2019**	**Capacity utilisation in % April-September 2019 (P)**
Dahej	Petronet LNG Ltd (PLL)	16.3 MMTPA	109.3
Hazira	Shell Energy India Pvt. Ltd.	5 MMTPA	99.5
Dabhol	RGPPL (GAIL - NTPC JV)	5 MMTPA	4.8
Kochi	Petronet LNG Ltd (PLL)	5 MMTPA	14.8
Ennore	Indian Oil LNG Pvt Ltd	5 MMTPA	4.8
Total Capacity		**36.3 MMTPA**	

* To increase to 5 MMTPA with breakwater

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.11.2019							
State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Andhra Pradesh	Bhagyanagar Gas Ltd, Godavari Gas Pvt.Ltd., Megha Engineering & Infrastructures Ltd.	Kakinada, Vijaywada, East/West Godavari, Krishna district GA (excluding areas already authorized)	50	25,160	81,854	158	6
Assam	Assam Gas Co. Ltd	Upper Assam GA	1	0	34,182	1,122	404
Bihar	GAIL (India) Ltd.	Patna	2	2,100	581	1	0
Chandigarh	Indian Oil-Adani Gas Pvt. Ltd.	Chandigarh	11	7,500	17,065	1	1
Daman and Diu	Indian Oil-Adani Gas Pvt. Ltd.	Daman	3	1,000	768	21	15
Delhi	Indraprastha Gas Ltd .	NCT of Delhi (Including Noida & Ghaziabad)	491	10,76,461	12,22,814	2,828	2,172
Gujarat & DNH	Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Gas Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd, IRM Energy Ltd.	Gandhinagar, Mehsana & Sabarkanta GA, Patan district GA, Surat-Bharuch-Ankleswar GA, Nadiad GA, Navsari GA, Rajkot GA, Surendranagar GA, Hazira GA, Valsad GA, Jamnagar GA, Bhavnagar GA, Kutch (West) GA, Amreli District GA, Dahej Vagra Taluka GA, Dahod District GA, Panchmahal District GA, Anand (excluding area authorised) district GA, Ahmedabad city and Daskroi area (excluding area already authorised) GA, Vadodara district, Vadodara Rural, Ahmedabad district GA, Anand area including Kanjari and Vadtal villages GA and Palanpur, Dadra and Nagar Haveli-Silvassa	562	9,73,955	21,56,834	19,089	5,025

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.11.2019							
State	**Entity operating**	**Geographical area/City**	**CNG stations**	**No. of CNG vehicles**	**PNG connections**		
					Domestic	**Commercial**	**Industrial**
Haryana	Haryana City Gas Distribution Ltd., Adani Gas Ltd., GAIL Gas Ltd., Indraprastha Gas Ltd. , Indian Oil-Adani Gas Pvt. Ltd.	Sonipat, Faridabad, Gurgaon, Rewari, Panipat, Nuh & Palwal, Karnal	85	1,62,252	122,251	300	569
Jharkhand	GAIL (India) Ltd.	Ranchi	2	382	197	0	0
Karnataka	Gail Gas Ltd., Megha Engineering & Infrastructures Ltd.	Bengaluru rural and urban districts GA, Tumkur district GA, Belgaum district GA, Dharwad	20	1,395	27,888	182	100
Kerala	Indian Oil-Adani Gas Pvt. Ltd.	Ernakulam	6	1100	1,213	7	3
Madhya Pradesh	Aavantika Gas Ltd, GAIL Gas Ltd	Dewas, Vijaipur, Gwalior GA, Indore GA including Ujjain city	45	36,727	70,326	134	215
Maharashtra	Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, Gujarat Gas Limited, Mahesh Gas Ltd, Unison Enviro Private Limited	Mumbai, Greater Mumbai, Thane Urban, Mira Bhayender, Navi Mumbai, Ambernath, Bhiwandi, Kalyan, Dombivli, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Pune City including Pimpri-Chinchwad along with adjoining contiguous areas of Hinjewadi, Chakan & Talegaon GA, Raigarh District GA excl. areas already authorized, Palghar district and Thane Rural GA, Pune (excluding area already authorised), Ratnagiri	337	9,77,943	15,92,701	4,196	282

21. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.) as on 01.11.2019

State	Entity operating	Geographical area/City	CNG stations	No. of CNG vehicles	PNG connections		
					Domestic	Commercial	Industrial
Odisha	GAIL (India) Ltd.	Khordha district GA, Cuttack district GA	7	3,305	373	0	0
Punjab	IRM Energy Pvt. Ltd., GSPL	Fatehgarh Sahib, Amritsar	12	2,851	1375	4	16
Rajasthan	Rajasthan State Gas Limited	Kota, Neemrana & Kukas	6	12,021	5,795	14	16
Telangana	Bhagyanagar Gas Ltd.	Hyderabad	51	26,174	20,086	13	26
Tripura	Tripura Natural Gas Co. Ltd	Agartala	8	12,200	43,376	424	50
Uttar Pradesh	GAIL Gas Ltd, Sanwariya Gas Ltd, Green Gas Ltd, Central U.P. Gas Ltd, Siti Energy Ltd, Adani Gas Ltd, Indian Oil-Adani Gas Pvt. Ltd.,Torrent Gas Pvt Ltd., GAIL (India) Ltd., IGL	Meerut, Dibiyapur, Mathura, Agra, Kanpur ga, Bareilly GA, Lucknow district, Moradabad GA, Firozabad Geographical Area (TTZ), Khurja GA, Allahabad, Varanasi and Auraiya, Kanpur Dehat & Etawah, Gorakhpur, Sant Kabir Nagar & Kushinagar, Bulandshahr, Jhansi	148	1,62,354	2,06,463	458	794
Uttarakhand	Indian Oil-Adani Gas Pvt. Ltd.	Udham Singh Nagar, Haridwar district GA	2	150	5,983	14	15
West Bengal	Great Eastern Energy Corporation Ltd.	Kultora, Asansol, Raniganj, Durgapur	7	3,900	0	0	0
Total			**1,856**	**34,88,930**	**56,12,125**	**28,966**	**9,709**

22. Domestic natural gas price and gas price ceiling (GCV basis)		
Period	**Domestic Natural Gas price in US$/MMBTU**	**Gas price ceiling in US$/MMBTU**
November 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.5	5.3
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.3
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67
April 2019 - September 2019	3.69	9.32
October 2019 - March 2020	3.23	8.43

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

International FOB prices/ Exchange rates ($/bbl)

Particulars	2017-18	2018-19	October 2019
Crude oil (Indian Basket)	56.43	69.88	59.70
Petrol	67.83	75.58	68.14
Diesel	68.19	82.51	73.92
Kerosene	67.65	82.24	72.44
LPG ($/MT)	485.92	526.00	429.00
FO ($/MT)	327.50	420.93	278.19
Naphtha ($/MT)	494.73	573.72	472.49
Exchange (Rs./$)	64.45	69.89	71.04

Customs, excise duty & GST rates

Product	Basic customs duty #	Excise duty	GST rates
Petrol	2.50%	Rs 19.98/Ltr	**
Diesel	2.50%	Rs 15.83/Ltr	**
PDS SKO	Nil	Not Applicable	5.00%
Non-PDS SKO	5.00%		18.00%
Domestic LPG	Nil***		5.00%
Non Domestic LPG	5.00%		18.00%
Furnace Oil (Non-Fert)	5.00%		18.00%
Naphtha (Non-Fert)	4.00%		18.00%
ATF	5.00%	11% *	**
Crude Oil	Rs.1/MT+ Rs.50/-MT as NCCD	Rs.1/MT+ Cess@20% + Rs.50 /-MT NCCD	**

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

Price buildup of petroleum products (Rs./litre/Cylinder)

Particulars	Petrol*	Diesel*
Price charged to dealers (excluding Excise Duty and VAT)	34.53	37.76
Excise Duty	19.98	15.83
Dealers' Commission (Average)	3.58	2.51
VAT (incl VAT on dealers' commission)	15.68	9.69
Retail Selling Price	**73.77**	**65.79**

Particulars	PDS SKO*	Subsidised Domestic LPG*
Price before taxes and dealers'/distributors' commission	30.55	587.19
Dealers'/distributors' commission	2.60	61.84
GST (incl GST on dealers'/distributors' commission)	1.66	32.47
Retail Selling Price	**34.81**	**681.50**

*Petrol and diesel at Delhi as per IOCL are as on 16th November 2019. PDS SKO at Mumbai and Subsidised Domestic LPG at Delhi are as on 16th November 2019 & 1st November 2019 respectively.

Impact of changes in product price by $1 per bbl for PDS SKO and $10/MT for Domestic LPG & change in exchange rate by ₹1 per $

Product	Impact of change in product price by $1per bbl / $10per MT		Impact of change in exchange rate by ₹ 1/$	
	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)	Per unit impact (₹/lit./cyl.)	Annualised financial impact (₹crore)
PDS SKO	0.45	140	0.48	150
Domestic LPG	10.28	1440	6.30	880
Total	-	**1,580**	-	**1,030**

Note: The above calculations are based on RTP for November 2019.

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

Under-recoveries/subsidy & burden sharing

PDS Kerosene

Product	2017-18	2018-19	H1, 2019-20
	Rs./Crore		
Under recovery	4,672	5,950	1,349
Subsidy under DBTK #	113	117	0
Total	**4,785**	**6,067**	**1,349**

#DBTK subsidy excludes cash incentive/assistance for establishment of institutional mechanisam for direct transfer of subsidy paid to States/UTs.

Domestic LPG under DBTL (Direct benefit transfer for LPG)

Particulars	2017-18	2018-19	H1, 2019-20
	Rs./Crore		
DBTL subsidy	20,880	31,447	11,249
PME &IEC^	25	92	30
Total	**20,905**	**31,539**	**11,279**

PMUY (Pradhan Mantri Ujjwala Yojana)

Particulars	2017-18	2018-19	H1, 2019-20
	Rs./Crore		
PMUY claims	2,496	5,649	1,284
PME & IEC^	63	34	43
Total	**2,559**	**5,683**	**1,327**

^ on payment basis (Project Management Expenditure & Information Education and Communication)

Sales & profit of petroleum sector (Rs. Crores)

Particulars	2018-19		H1, 2019-20	
	Turnover	PAT	Turnover	PAT
Upstream/midstream Companies (PSU)	197,468	35,332	93,501	15,771
Downstream Companies (PSU)	12,33,019	30,055	5,81,353	8,807
Standalone Refineries (PSU)	140,614	2,087	59,464	-715
Private-RIL	400,986	35,163	190,830	18,738

Borrowings of OMCs (Rs. Crores), As on

Company	Mar`18	Mar`19	H1, Mar`20
IOCL	58,030	86,359	80,382
BPCL	23,351	29,099	31,756
HPCL	20,991	27,240	29,759

Petroleum sector contribution to Central/State Govt.

Particulars	2016-17	2017-18	2018-19
Central Government	3,35,175	3,45,249	3,65,113
% of total revenue receipts	24%	24%	28%
State Governments	1,89,770	2,09,155	2,30,325
% of total revenue receipts	9%	9%	11%
Total (Rs. Crores)	**5,24,945**	**5,54,404**	**5,95,438**

Subsidy as a percentage of GDP (at current prices)

Particulars	2015-16	2016-17	2017-18
Petroleum subsidy	0.25	0.18	0.17

Note: GDP figure for 2015-16 and 2016-17 are Revised Estimates and 2017-18 are Provisional Estimates

24. Capital expenditure of PSU oil companies

(Rs in crores)

Company	2016-17 (P)	2017-18 (P)	2018-19 (P)	2019-20 (P)	
				Target	April-October
ONGC Ltd	28,010	72,383	28,738	32,921	13,545
ONGC Videsh Ltd (OVL)	18,360	6,240	6,013	5,161	3,533
Oil India Ltd (OIL)	10,514	8,395	3,702	4,105	1,848
GAIL (India) Ltd	2,180	3,613	5,958	5,339	1,698
Indian Oil Corp. Ltd. (IOCL)	21,918	20,345	26,548	25,084	12,653
Hindustan Petroleum Corp. Ltd (HPCL)	5,861	7,134	11,689	9,500	6,989
Bharat Petroleum Corp. Ltd (BPCL)	16,810	8,161	10,084	7,900	4,464
Mangalore Refinery & Petrochem Ltd (MRPL)	614	1,281	1,072	818	801
Chennai Petroleum Corp. Ltd (CPCL)	1,293	963	1,208	1,105	624
Numaligarh Refinery Ltd (NRL)	500	387	459	455	144
Balmer Lawrie Co. Ltd (BL)	73	78	125	40	16
Engineers India Ltd (EIL) #	-	-	87	1212	41
Total	**106,133**	**128,981**	**95,684**	**93,639**	**46,358**

Includes expenditure on investment in JV/subsidiaries.

(P) Provisional;

Included from 2018-19.

25. 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	1.411	8.88
Diesel (HSD)	1	1.210	7.61
Kerosene (SKO)	1	1.285	8.08
Aviation Turbine Fuel (ATF)	1	1.288	8.10
Light Diesel Oil (LDO)	1	1.172	7.37
Furnace Oil (FO)	1	1.0424	6.74
Crude Oil	1	1.170	7.33

Exclusive Economic Zone

200 Nautical Miles	370.4 Kilometers

Volume conversion

From	To
1 US Barrel (bbl)	159 litres
1 US Barrel (bbl)	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)	3,412 Btu

Natural gas conversions

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