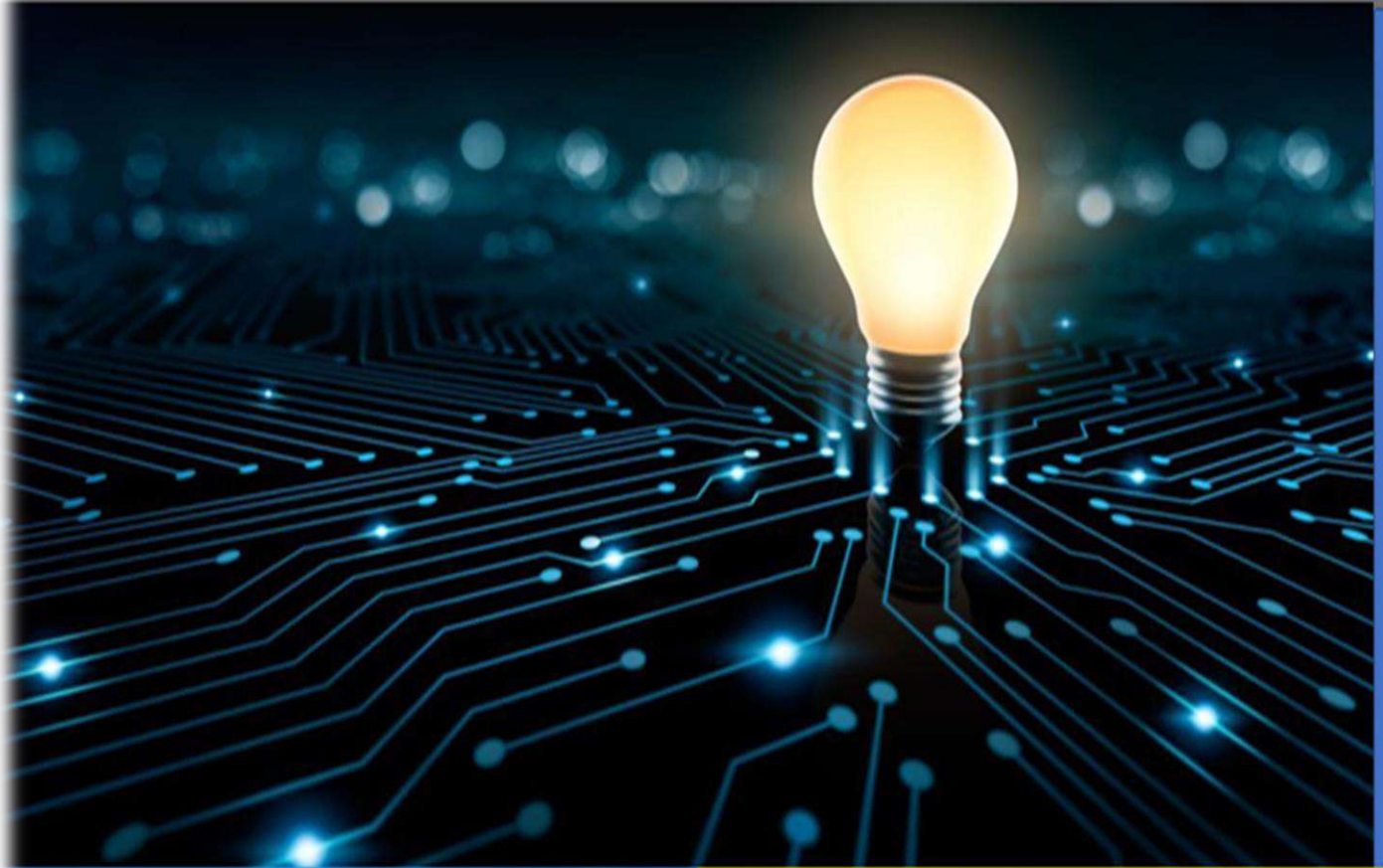


|| Chapter - 6 ||

Consumption of Energy Resources



CHAPTER 6

Consumption of Energy Resources

Consumption

The study of consumption patterns of energy in any economy is vital to understand how final demand drives energy use or consumption. SEEA - Energy states that “resource uses and environmental pressures, which occur at the level of production, can in fact be viewed as determined by final use, which initiated the production chain”.

Moreover, to fully understand the climate-change process, the data on many consumption activities, such as heating of houses and buildings, usage of electricity, various industrial processes and transportation, which entail combustion processes are required.

Energy-related air emissions are being measured and tracked by global economies, because most economic activities are linked to combustion/consumption that is needed for energy production.

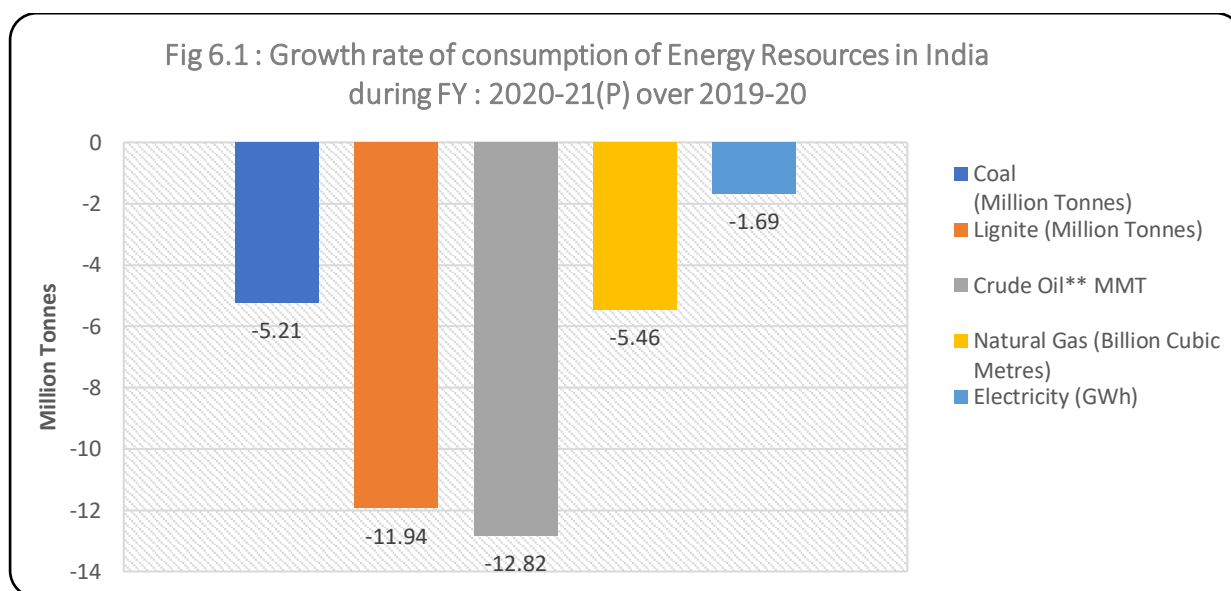
With the increasing focus on sustainable consumption and production patterns world over, resource uses and environmental pressures are being viewed as determinants or drivers of the final use and consumption of products.

According to the International Energy Agency, where India is an Association country since March 2017, Total Energy Consumption (TEC) in an economy is a good indicator of efficient or non-efficient end-use in economic activities and may indicate course-correction measures to sustainability. It is defined to include the sum of the consumption in the end-use sectors and for non-energy use. Energy used for transformation processes and for own use of the energy producing industries is excluded. Thus, final consumption reflects for the most part, deliveries to consumers and represents the quantity of all energy necessary to satisfy inland consumption.

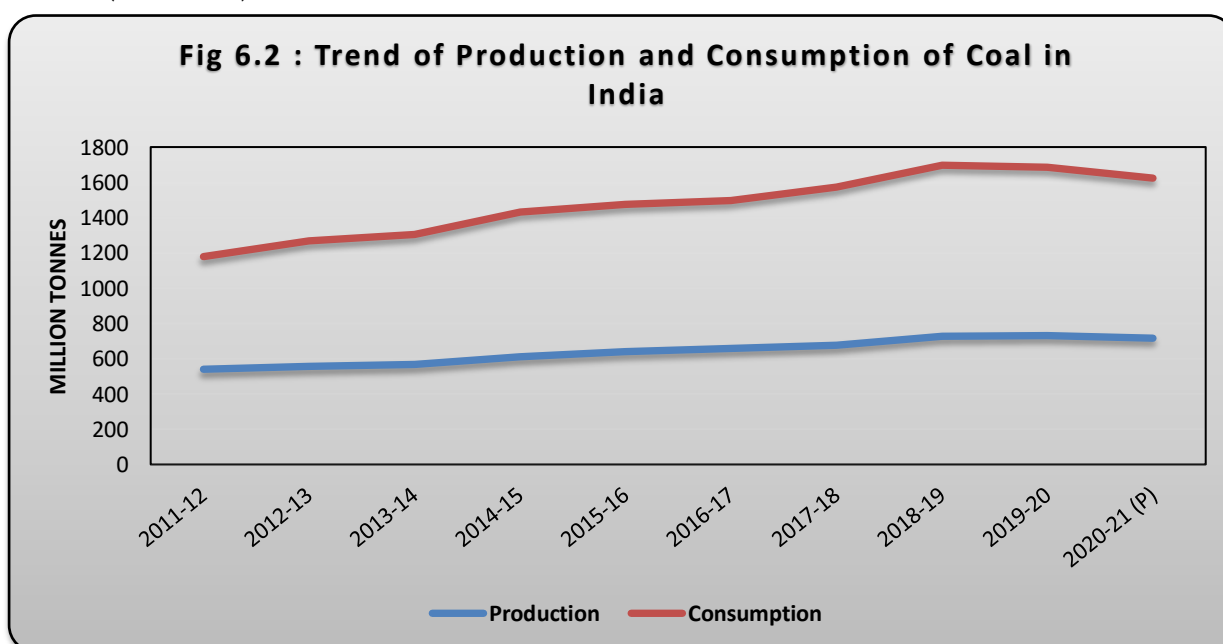
This chapter presents the total consumption of energy resources along with sector wise end use of different energy resources and products in India.

Highlights

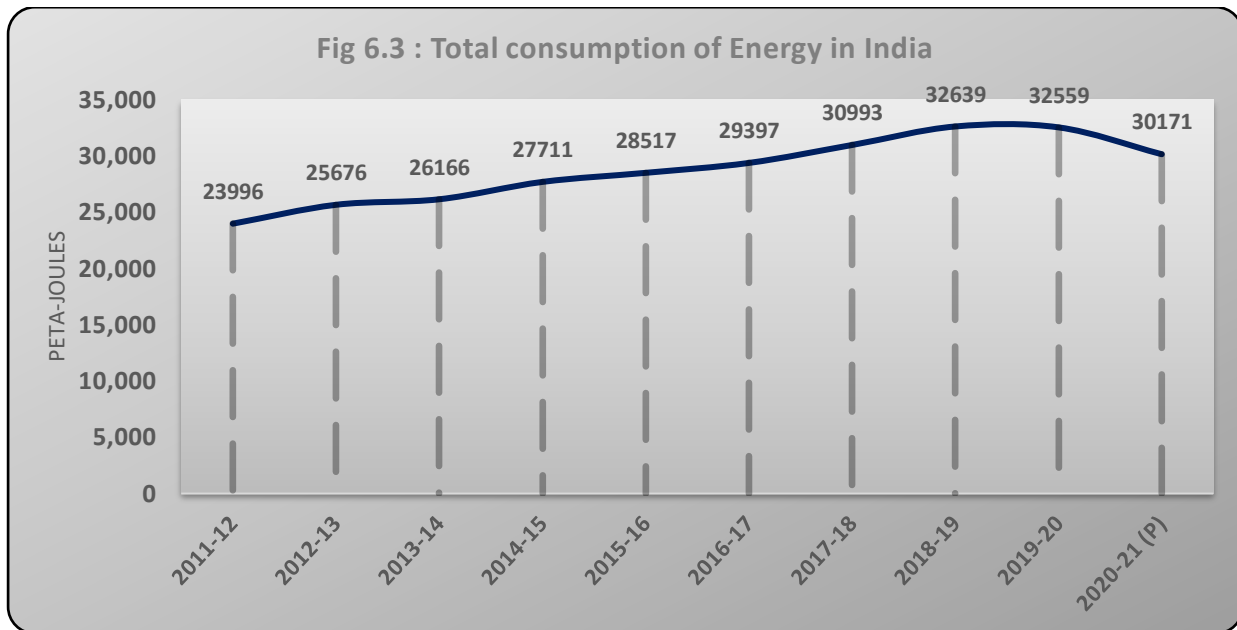
- During the FY: 2020-21, India has experienced a rather slow rate of consumption, mainly because of COVID-19 pandemic. The total consumption of energy resources in 2020-21(P) has shown a decreasing trend, in all sectors, as compared to 2019-20. An overview of the same has been given below (Table 6.1),



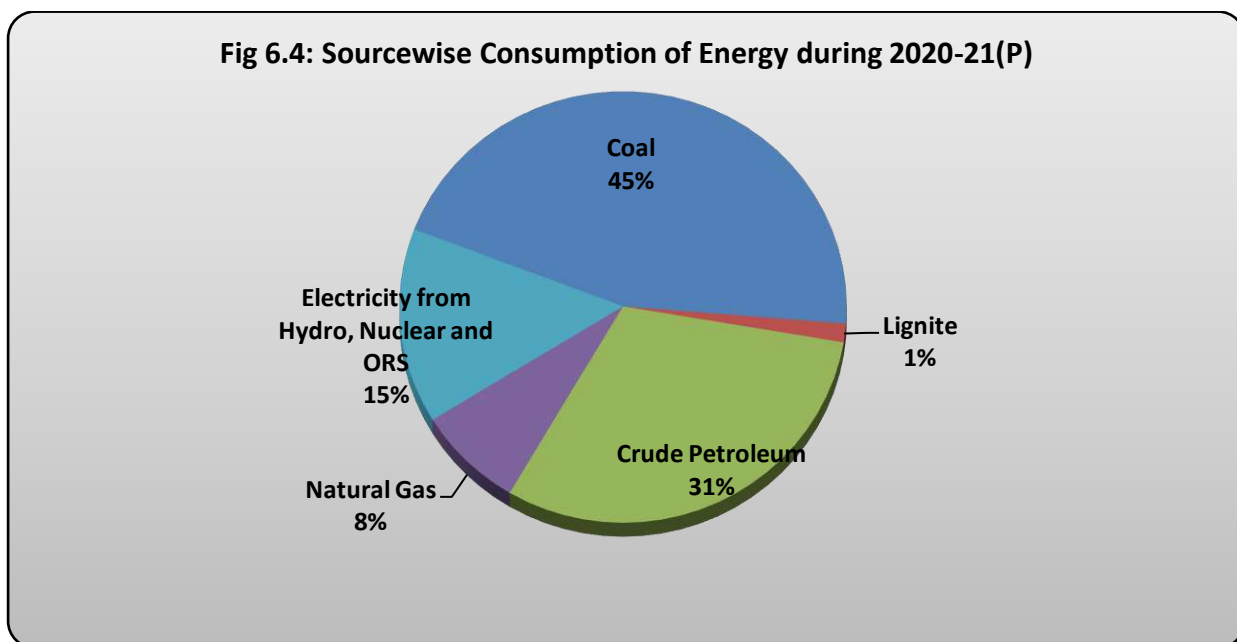
- India is one of the largest producers and consumer of coal in the world. Though there is a small decline of (-)5.21% in 2020-21(P) over 2019-20, there has been an upward trend in the consumption of coal in the country during the period 2011-12 to 2018-19 (Table 6.1)



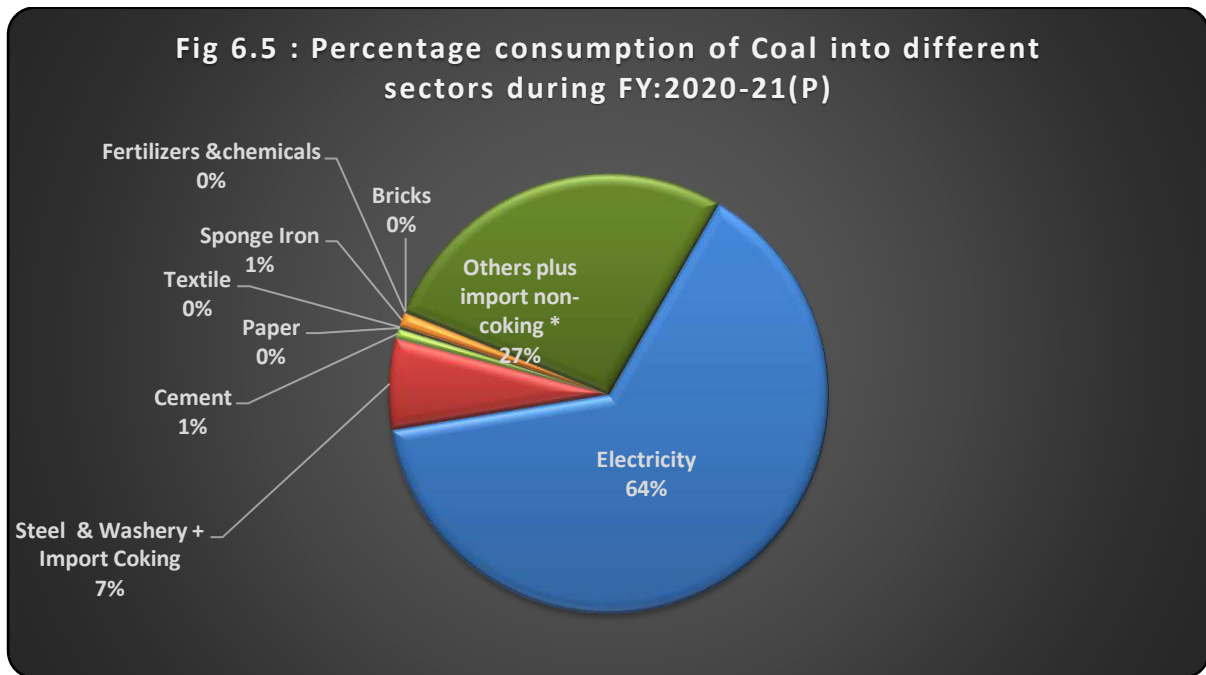
- India has experienced a healthy growth in consumption of Energy. A growth from a figure of 23,996 Petajoule (PJ) during 2011-12 to 32,559 Petajoule (PJ) in 2019-20i.e. almost 36% in a gap of 8 years. However, the total consumption of energy has decreased from 32,559 PJ in 2019-20 to 30,171 PJ in 2020-21(P), a decrease of 2,388 PJ. This may be attributed to the decrease in consumption in all resources of energy viz. coal, lignite, crude oil natural gas and electricity (from Hydro, Nuclear and other renewable sources from utilities). (Table 6.2).



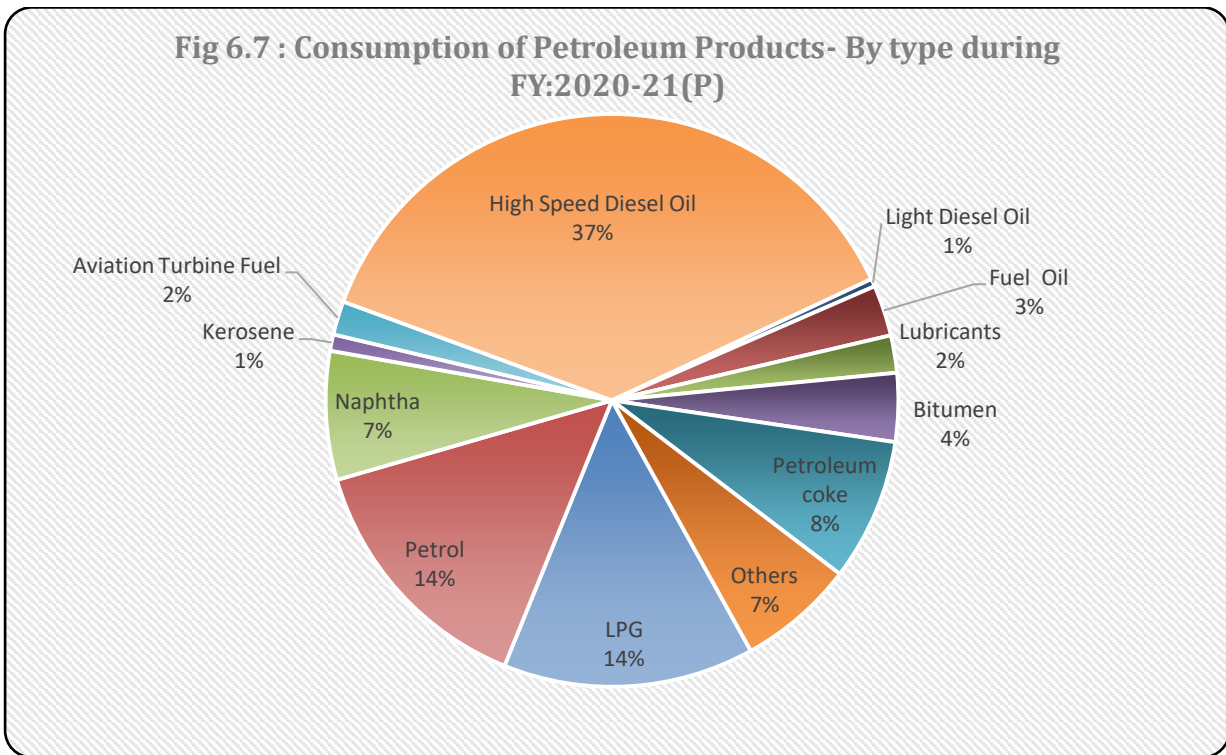
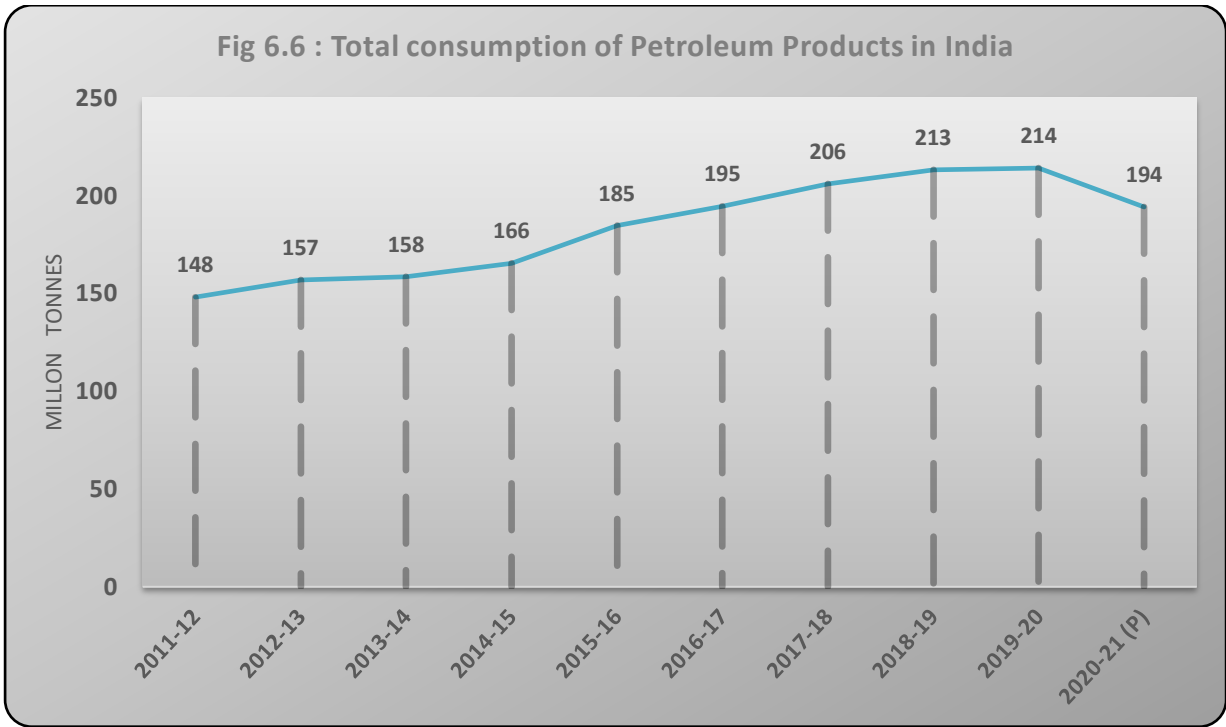
- The consumption of energy in petajoules from Coal and Lignite was highest which accounted for about 46.84% of the total consumption during 2020-21(P) followed by Crude Oil (30.78%) and Electricity (14.64%) (Table 6.2).



- Electricity Sector remains the biggest consumer of Raw Coal and Lignite in India with this sector consuming as much as 64.07% of the total consumption of coal and 84.46% of total consumption of lignite in India in 2020-21(P). (Table 6.3 & Table 6.4)

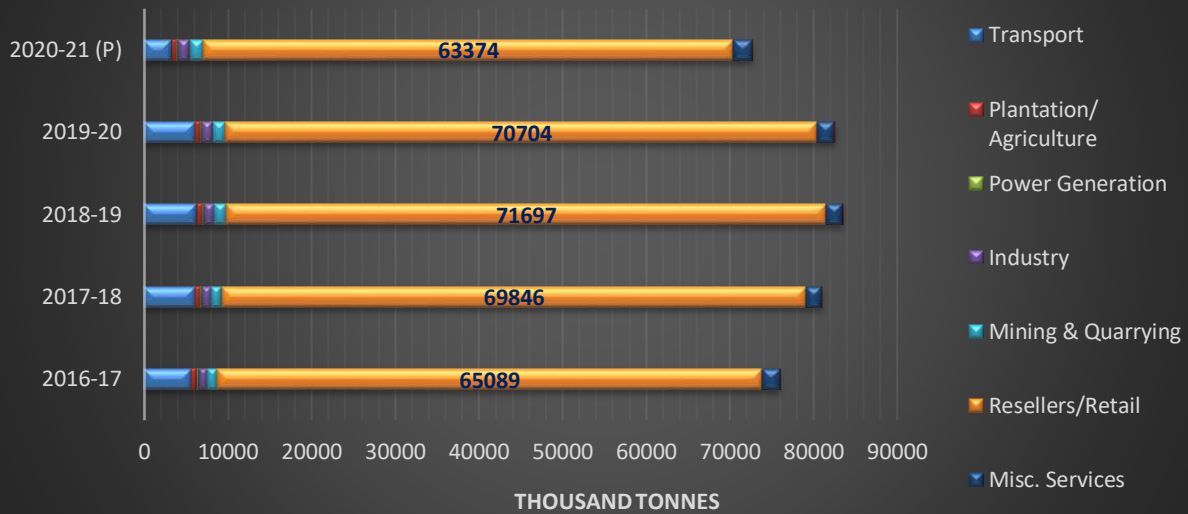


- Consumption of Lignite has decreased from 42.27 MT in 2019-20 to 37.22 MT in 2020-21(P) which is almost 12% (11.94%). The sharp decline can be attributed to the lesser demand in Electricity/Power sector during FY: 2020-21(P), which has experienced a reduction of 4.89 MT over last year (Table 6.4).
- Petroleum products have experienced steady growth over time. From a figure of 148.13 MTs during 2011-12 to 214.13 MTS during 2019-20 i.e., a growth of 45% over a span of 9 years. However, during FY:2020-21 the same has been decreased by 9.26% and stood at 194.30 MTS. Among all the products the High-Speed Diesel Oil (HSDO) accounted for 37.42% of total consumption. This was followed by Petrol (14.40%), LPG (14.18%), Pet Coke (8.03%) (Table 6.5).



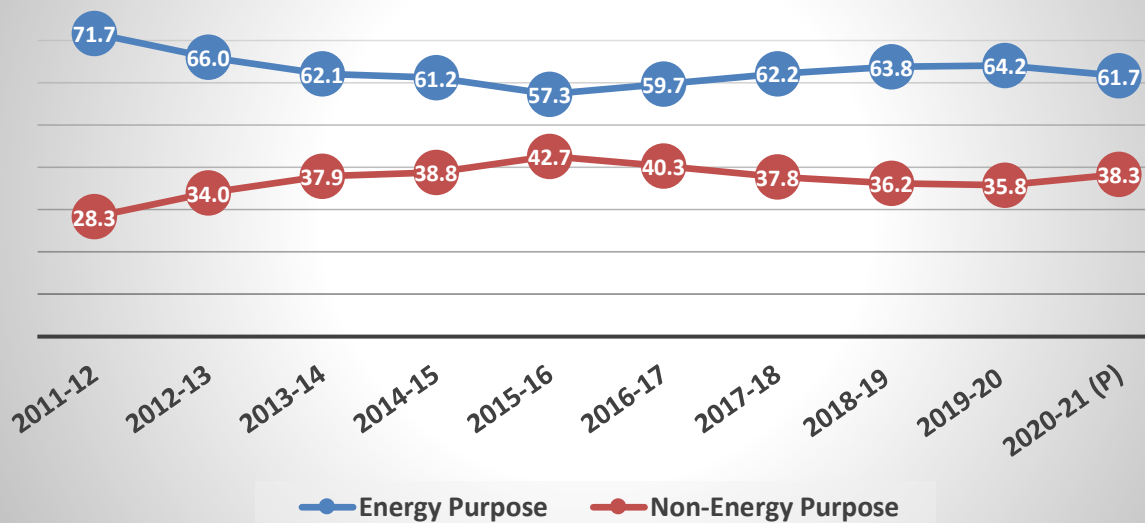
- Among all the Petroleum Products the HSDO, which has the highest share of consumption (37.42%) during FY: 2020-21(P), experienced a negative growth of 11.97% over last year. The Petrol and Pet-Coke are also having a growth of (-) 6.69% and (-)28.11% respectively over last year. The LPG, however has registered a positive growth during FY:2020-21; with a growth of 4.67% over last year it has stood at a figure of 27.56 MTs in 2020-21, as compared to 26.33 MTs during 2019-20(Table 6.5).

Fig 6.8: Sector-wise consumption of HSDO(High Speed Diesel Oil) during last 5 years



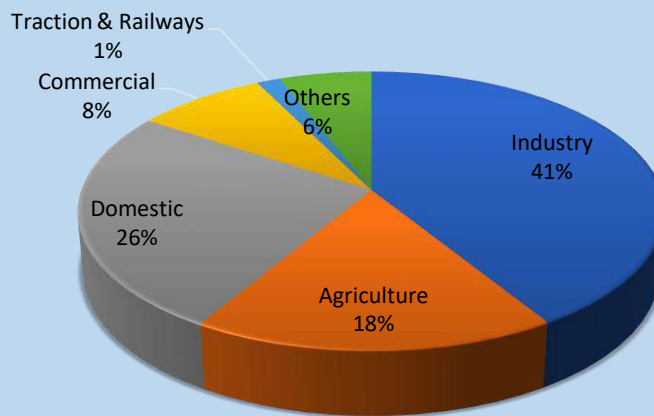
- The impact of energy policies of recent time is evident on the consumption of kerosene as a fuel in the country – the consumption of Kerosene has seen a steady decreasing trend with a CAGR of (-) 15.55% from 2011-12 to 2020-21(P) (Table 6.5).
- The consumption of Natural Gas, both for energy and non-energy purpose have experienced a fluctuation over time. Where the use against energy purposes have found to be dwindling down during FY:2020-21, the uses against ‘non-energy’ purposes have shown a positive growth during FY:2020-21(Table 6.7).

Fig. 6.9: Percentage Consumption of Natural Gas in India during 2011-12 to 2020-21(P)



- The maximum use of Natural Gas is in fertilizers industry (29.32%) followed by power generation (17.87%). Industry wise off-take of natural gas shows that, out of the Total Consumption (*Availability Basis (Net Production + LNG Imports)*), while 57.08% of natural gas has been used for Energy purposes, 35.45% is used for non-energy purposes (Table 6.7).
- The estimated electricity consumption increased from 7,85,194 GWh during 2011-12 to 12,27,000 GWh during 2020-21(P), showing a CAGR of 5.09%. Out of the total consumption of electricity in 2020-21(P), industry sector accounted for the largest share (41.09%), followed by domestic (25.67%), agriculture (17.52%) and commercial sectors (8.31%). The Domestic sector has experienced the highest CAGR of 7.02 between FY:2011-12 to FY:2020-21(P) (Table 6.8).

Fig 6.10: Consumption of Electricity by Sectors in India during 2020-21(P)



Total Consumption = 12,27,000 GWh

Fig 6.11: Sector-wise consumption of Electricity during last 5 years

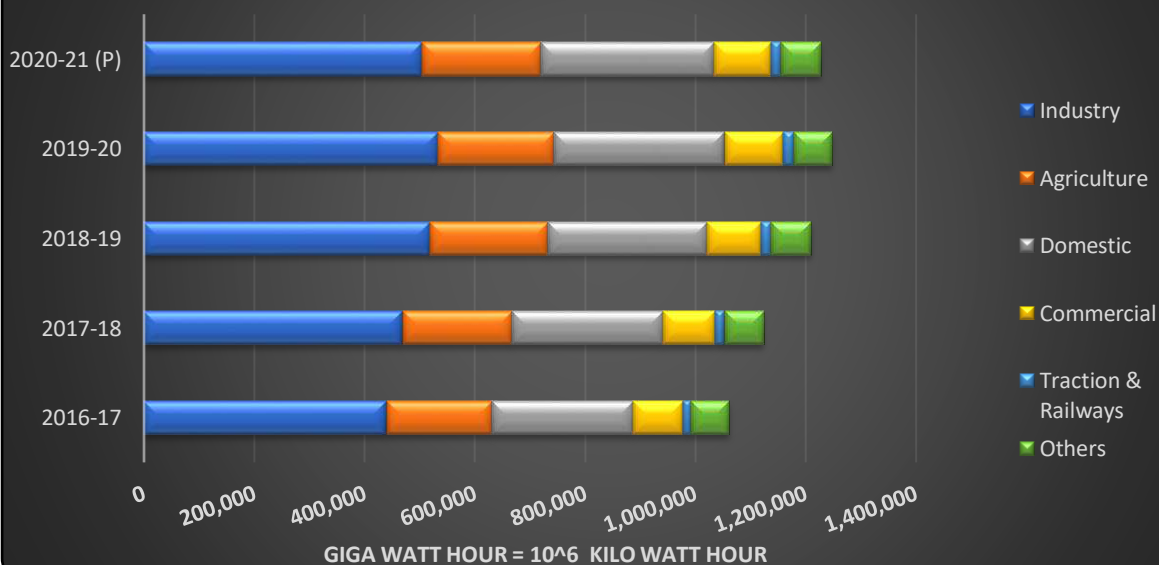


Table 6.1: Yearwise Consumption of Energy Resources in Physical Units

Year	Coal #	Lignite	Crude Oil** MMT	Natural Gas (Billion Cubic Metres)	Electricity (GWh)
	(Million Tonnes)				
1	2	3	4	5	6
2011-12	638.73	41.88	204.12	64.45	7,85,194.00
2012-13	713.39	46.31	219.21	57.36	8,24,300.99
2013-14	739.34	43.90	222.50	52.37	8,74,208.57
2014-15	822.13	46.95	223.24	51.30	9,48,521.82
2015-16	836.73	42.21	232.86	52.52	10,01,190.68
2016-17	837.22	43.16	245.36	55.70	10,61,182.64
2017-18	898.49	46.32	251.93	59.17	11,23,426.86
2018-19	968.36	45.81	257.20	60.80	12,09,971.63
2019-20	955.92	42.27	254.39	64.14	12,48,085.82
2020-21 (P)	906.08	37.22	221.77	60.64	12,27,000.00
Growth rate of 2020-21 over 2019-20(%)	-5.21	-11.94	-12.82	-5.46	-1.69
CAGR 2011-12 to 2020-21 (P) (%)	3.96	-1.30	0.93	-0.67	5.09

(P): Provisional

GWh = Giga Watt hour = 10^6 x Kilo Watt hour

**Crude oil in terms of refinery crude throughput.

Does not include Lignite

Sources: *1. Office of Coal Controller, Ministry of Coal*
2. Ministry of Petroleum & Natural Gas.
3. Central Electricity Authority.

Table 6.2: Yearwise Consumption of Energy Resources in Energy Units**(In Petajoules)**

Year	Coal	Lignite	Crude Oil *	Natural Gas	Electricity #	Total
1	2	3	4	5	6	7
2011-12	9664	476	8547	2483	2827	23996
2012-13	10794	527	9178	2210	2967	25676
2013-14	11186	499	9316	2017	3147	26166
2014-15	12439	534	9347	1976	3415	27711
2015-16	12660	480	9750	2023	3604	28517
2016-17	12667	491	10273	2145	3820	29397
2017-18	13594	527	10549	2279	4044	30993
2018-19	14651	521	10769	2342	4356	32639
2019-20	14463	481	10651	2471	4493	32559
2020-21 (P)	13709	423	9286	2336	4417	30171
% Share in total consumption for 2020-21 (P)	45.4	1.4	30.8	7.7	14.6	100.0
CAGR 2011-12 to 2020-21 (%)	3.96	-1.30	0.93	-0.67	5.09	2.58

*: Crude oil in terms of refinery crude processed.

(P): Provisional.

#: Include Hydro, Nuclear and other renewable sources electricity from utilities

Note: Here the value of energy in peta joules relates to the production value from Hydro and Nuclear only. Due to non availability of the data the consumption value is taken equivalent to production value

Sources:

1. Office of Coal Controller, Ministry of Coal
2. Ministry of Petroleum & Natural Gas.
3. Central Electricity Authority.

Table 6.3: Yearwise Consumption of Coal - Industrywise**(Million Tonnes)**

Year	Electricity	Steel & Washery + Import Coking	Cement	Paper	Textile	Sponge Iron	Fertilizers & chemicals	Bricks	Others plus import non-coking*	Total
1	2	3	4	5	6	7	8	9	10	11 = 2 to 10
2011-12	410.37	47.86	13.18	2.03	0.26	21.69	3.19	0.13	140.04	638.73
2012-13	446.76	51.70	13.11	2.12	0.30	20.90	2.86	2.01	173.62	713.39
2013-14	448.95	53.05	11.94	1.91	0.36	18.49	2.64	4.01	198.00	739.34
2014-15	497.70	56.24	11.36	1.65	0.42	17.77	2.70	0.09	234.22	822.13
2015-16	517.77	57.08	8.99	1.21	0.27	7.76	2.62	0.07	240.95	836.73
2016-17	535.04	51.98	6.36	1.18	0.24	5.56	2.45	0.10	234.31	837.22
2017-18	585.49	58.45	7.71	1.51	0.24	8.53	2.16	0.12	234.30	898.49
2018-19	621.64	64.65	8.82	1.64	0.20	12.09	1.79	0.09	257.44	968.36
2019-20	626.15	63.74	8.57	1.33	0.10	10.53	1.76	0.03	243.72	955.92
2020-21 (P)	580.56	60.23	6.75	1.05	0.08	9.57	1.72	0.03	246.09	906.08
Percentage Distribution (in 2020-21)	64.07	6.65	0.75	0.12	0.01	1.06	0.19	0.00	27.16	100.00
Growth rate of 2020-21 over 2019-20(%)	-7.28	-5.50	-21.22	-21.19	-16.83	-9.09	-2.27	-3.85	0.97	-5.21
CAGR 2011-12 to 2020-21(%)	3.93	2.59	-7.16	-7.09	-11.72	-8.69	-6.61	-16.67	6.46	3.96

(P): Provisional

* Includes Sponge Iron, colliery consumption, jute, bricks, coal for soft coke, fertilisers & other industries, import of non coking coal

Source : Office of the Coal Controller, Ministry of Coal

Table 6.4: Yearwise Consumption of Lignite - Industrywise**(Million Tonnes)**

Year	Electricity	Steel & Washery	Cement	Paper	Textile	Others *	Total
1	2	3	4	5	6	7	8=2 to 7
2011-12	32.06	0.03	1.01	0.63	3.67	4.48	41.88
2012-13	37.20	0.05	1.10	0.69	3.47	3.81	46.31
2013-14	36.34	0.03	1.49	1.29	0.73	4.02	43.90
2014-15	39.47	0.02	1.27	0.65	2.89	2.65	46.95
2015-16	37.56	0.01	0.23	0.43	1.73	2.26	42.21
2016-17	38.82	0.04	0.29	0.53	1.29	2.19	43.16
2017-18	38.84	0.12	1.09	0.76	2.46	3.05	46.32
2018-19	37.73	0.09	1.80	0.60	2.61	2.97	45.81
2019-20	36.33	0.02	0.77	0.55	0.12	4.47	42.27
2020-21 (P)	31.44	0.03	0.81	2.06	0.75	2.14	37.22
Distribution (%)	84.46	0.07	2.18	5.55	2.01	5.74	100.00
Growth rate of 2020-21 over 2019-20(%)	-13.47	19.05	5.19	278.02	513.11	-52.28	-11.94
CAGR 2011-12 to 2020-21(%)	-0.22	-2.71	-2.45	14.07	-16.20	-7.89	-1.30

(P): Provisional

* Includes Sponge Iron, colliery consumption., jute, bricks, coal for soft coke, chemicals, fertilisers & other industries consumption.

From 2009-10 onwards cotton is also included in others.

Source : Office of the Coal Controller, Ministry of Coal

Table 6.5 : Yearwise Consumption of Petroleum Products - Categorywise

(Million Tonnes)

Year	Light Distillates			Middle Distillates			
	LPG	Petrol	Naphtha	Kerosene	Aviation Turbine Fuel	High Speed Diesel Oil	Light Diesel Oil
1	2	3	4	5	6	7	8
2011-12	15.35	14.99	11.22	8.23	5.54	64.75	0.41
2012-13	15.60	15.74	12.29	7.50	5.27	69.08	0.40
2013-14	16.29	17.13	11.31	7.16	5.50	68.36	0.39
2014-15	18.00	19.08	11.08	7.09	5.72	69.42	0.37
2015-16	19.62	21.85	13.27	6.83	6.26	74.65	0.41
2016-17	21.61	23.76	13.24	5.40	7.00	76.03	0.45
2017-18	23.34	26.17	12.89	3.85	7.63	81.07	0.52
2018-19	24.91	28.28	14.13	3.46	8.30	83.53	0.60
2019-20	26.33	29.98	14.27	2.40	8.00	82.60	0.63
2020-21 (P)	27.56	27.97	14.10	1.80	3.70	72.71	0.86
% Distribution in 2020-21(P)	14.18	14.40	7.26	0.93	1.90	37.42	0.44
Growth rate of 2020-21 over 2019-20 (%)	4.67	-6.69	-1.17	-24.99	-53.77	-11.97	36.20
CAGR 2011-12 to 2020-21 (%)	6.72	7.17	2.57	-15.55	-4.39	1.30	8.37

(P) : Provisional

Note: Consumption includes sales by oil companies, own consumption and direct private imports

Total may not tally due to rounding off.

Table 6.5 (Contd.) : Yearwise Consumption of Petroleum Products - Categorywise**(Million Tonnes)**

Year	Heavy Ends				Others*	Total Consumption	Refinery Fuel and Losses	Total including Refinery Fuel and losses
	Fuel Oil	Lubricants	Bitumen	Petroleum coke				
	9	10	11	13	14	15=2 to 14	16	17
2011-12	9.31	2.63	4.64	6.14	4.92	148.13	17.29	165.42
2012-13	7.66	3.20	4.68	10.13	5.51	157.06	18.35	175.40
2013-14	6.24	3.31	5.01	11.76	5.96	158.41	17.87	176.27
2014-15	5.96	3.31	5.07	14.56	5.87	165.52	17.67	183.19
2015-16	6.63	3.57	5.94	19.30	6.35	184.67	18.77	203.45
2016-17	7.15	3.47	5.94	23.96	6.59	194.60	20.07	214.67
2017-18	6.72	3.88	6.09	25.66	8.34	206.17	21.16	227.33
2018-19	6.56	3.67	6.71	21.35	11.72	213.22	21.45	234.67
2019-20	6.30	3.83	6.72	21.71	11.36	214.13	23.61	237.74
2020-21 (P)	5.59	4.10	7.52	15.61	12.79	194.30	22.81	217.10
% Distribution in 2020-21 (P)	2.88	2.11	3.87	8.03	6.58	100.00	-	-
Growth rate of 2020-21 over 2019-20 (%)	-11.35	6.88	11.96	-28.11	12.55	-9.26	-3.42	-8.68
CAGR 2011-12 to 2020-21 (%)	-5.51	5.04	5.52	10.92	11.20	3.06	3.12	3.07

(P) : Provisional; Consumption includes sales by oil companies, own consumption and direct private imports

* : Includes those of light & middle distillates and heavy ends and sales through private parties.

Total may not tally due to rounding off.

Source: Ministry of Petroleum & Natural Gas.

Table 6.6 (A): Yearwise Consumption of Selected Petroleum Products - Sectorwise(end use)										
('000 Tonnes)										
Petroleum Product	Year	Transport	Plantation/ Agriculture	Power Generation	Industry	Mining & Quarrying	Resellers /Retail	Misc. Services	Pvt Imports	Total
1	2	3	4	5	6	7	8	9	10	11 =3 to10
High Speed Diesel Oil	2011-12	5529	684	168	1649	1181	53208	2262	70	64750
	2012-13	5160	617	214	1628	1073	58021	2320	47	69080
	2013-14	3203	429	204	687	873	61465	1426	77	68364
	2014-15	4617	575	197	794	998	60403	1748	83	69416
	2015-16	5765	630	224	1096	1184	63772	1922	55	74647
	2016-17	5658	607	208	1033	1224	65089	2161	46	76027
	2017-18	5999	618	223	1155	1255	69846	1887	90	81073
	2018-19	6210	639	222	1264	1465	71697	1938	93	83528
	2019-20	6011	616	214	1334	1542	70704	2064	117	82602
2020-21 (P)	3257	571	204	1355	1642	63374	2232	79	72713	
Growth rate of 2020-21 over 2019-20(%)		-45.82	-7.35	-4.88	1.56	6.50	-10.37	8.15	-32.69	-11.97
CAGR 2011-12 to 2020-21 (%)		-5.71	-1.99	2.14	-2.16	3.73	1.96	-0.15	1.33	1.30

Table 6.6 (B) : Yearwise Consumption of Selected Petroleum Products - Sectorwise(end use)										
('000 Tonnes)										
Petroleum Product	Year	Transport	Plantation/ Agriculture	Power Generation	Industry	Mining & Quarrying	resellers/ Retail	Misc. Services	Pvt Imports	Total
1	2	3	4	5	6	7	8	9	10	11 =3 to10
Light Diesel Oil	2011-12	3	1	127	102	2	**	180	0	415
	2012-13	3	1	142	74	2	1	175	0	399
	2013-14	4	1	132	64	3	1	182	0	386
	2014-15	5	1	132	55	4	4	165	0	365
	2015-16	4	1	154	61	2	1	184	0	407
	2016-17	7	2	174	60	2	1	203	0	449
	2017-18	7	9	143	149	6	3	207	0	524
	2018-19	10	16	277	175	22	33	65	0	598
	2019-20	5	12	342	153	14	38	63	0	628
2020-21 (P)	5	15	252	309	8	125	129	12	855	
Growth rate of 2020-21 over 2019-20(%)		10.33	22.72	-26.26	101.30	-46.59	232.62	103.53	-	36.20
CAGR 2011-12 to 2020-21 (%)		7.87	30.48	7.96	13.15	14.29	-	-3.66	-	8.37

Note: ** denotes that the data of Resellers / Retail are included in Miscellaneous services

Table 6.6 (C) : Yearwise Consumption of Selected Petroleum Products - Sectorwise(end use)

('000 Tonnes)										
Petroleum Product	Year	Transport	Plantation/ Agriculture	Power Generation	Industry	Mining & Quarrying	resellers/ Retail	Misc. Services	Pvt Imports	Total
1	2	3	4	5	6	7	8	9	10	11 =3 to10
Furnace Oil	2011-12	371	70	647	2408	45	**	3300	706	7547
	2012-13	277	79	587	2019	12	351	2357	608	6291
	2013-14	315	75	536	1833	38	309	1985	696	5787
	2014-15	346	56	446	1748	45	197	2175	570	5584
	2015-16	380	57	430	2136	53	270	2564	592	6482
	2016-17	444	51	361	2492	71	357	2485	784	7046
	2017-18	601	50	314	2346	68	321	2234	672	6605
	2018-19	786	78	339	2577	54	298	1449	611	6195
	2019-20	849	71	303	2143	84	290	1398	775	5912
2020-21 (E)	1022	80	226	1874	92	268	1330	316	5208	
Growth rate of 2020-21 over 2019-20(%)		20.39	12.85	-25.32	-12.51	9.12	-7.55	-4.88	-59.22	-11.90
CAGR 2011-12 to 2020-21 (%)		11.92	1.43	-11.02	-2.75	8.17	-	-9.60	-8.55	-4.04

Note: ** denotes that the data of Resellers / Retail are included in Miscellaneous services

Table 6.6 (D) : Yearwise Consumption of Selected Petroleum Products - Sectorwise(end use)

('000 Tonnes)										
Petroleum Product	Year	Plantation/ Agriculture	Power Generation	Industry	Mining & Quarrying	resellers/ Retail	Misc. Services	Pvt Imports	Total	
1	2	3	4	5	6	7	8	9	10 =3 to 9	
Low Sulphur Heavy Stock	2011-12	0.17	399.19	1066.99	0.92	0.00	291.87	0.00	1759.14	
	2012-13	0.00	438.98	778.01	0.00	0.00	149.00	0.00	1365.99	
	2013-14	0.00	328.14	76.32	0.00	0.00	44.25	0.00	448.71	
	2014-15	0.00	226.18	103.59	0.00	0.00	47.50	0.00	377.26	
	2015-16	0.00	50.70	70.45	0.00	0.00	29.23	0.00	150.38	
	2016-17	0.00	16.43	50.88	0.00	0.00	36.91	0.00	104.23	
	2017-18	1.18	0.00	53.78	0.31	5.30	46.33	0.00	106.90	
	2018-19	7.90	9.31	175.13	0.00	21.53	128.67	0.00	342.53	
	2019-20	6.42	17.88	201.93	0.00	12.67	113.02	0.00	351.92	
2020-21 (E)	6.79	10.71	196.23	0.00	11.29	115.97	0.00	340.99		
Growth rate of 2020-21 over 2019-20(%)		-	-	-2.82	-	-	2.61	-	-3.10	
CAGR 2011-12 to 2020-21 (%)		50.55	-33.11	-17.15	-	-	-9.75	-	-16.67	

**Table 6.6 (E) : Yearwise Consumption of Selected Petroleum Products -
Sectorwise(end use)**

('000 Tonnes)

Petroleum Product	Year	Transport	Plantation/Agriculture	Power Generation	Manufacturing/Non domestic	Mining	Domestic Distribution	Non-Domestic /Industry/Commercial	Reseller/Retail	Other/ Misc. Services	Private import	Total
1	2	3	4	5	6	7	8	9	10	11	12	13=sum of (3) to (12)
Liquefied Petroleum Gas	2011-12	224	5	0	1255	0	13,296	NA	**	150	421	15,350
	2012-13	215	4	0	145	0	13,568	1168	59	45	398	15,601
	2013-14	195	4	3	135	0	14,412	1,074	58	46	369	16,294
	2014-15	165	6	3	208	0	16,040	1,051	45	53	429	18,000
	2015-16	172	7	3	202	0	17,182	1,464	45	60	489	19,623
	2016-17	168	8	2	220	0	18,871	1,776	67	67	429	21,608
	2017-18	185	7	1	205	0	20,352	2,086	74	67	364	23,342
	2018-19	181	22	2	204	0	21,728	2,364	0	89	316	24,907
	2019-20	173	26	1	153	0	23,076	2,614	0	82	204	26,330
	2020-21 (P)	119	28	0	215	2	25,128	1,886	1	115	64	27,558
Growth rate of 2020-21 over 2019-20(%)		-31.13	9.36	-	40.15		8.89	-27.86	-	40.87	-68.55	4.67
CAGR 2011-12 to 2020-21 (%)		-6.77	21.81	-	-17.80	-	7.33	-	-	-2.85	-18.86	6.72

Note: ** denotes that the data of Resellers / Retail are included in Miscellaneous services

**Table 6.6 (F) : Yearwise Consumption of Selected Petroleum Products -
Sectorwise(end use)**

('000 Tonnes)

Petroleum Product	Year	Fertiliser Sector	Petro chemicals	Power Sector	Steel Plants	Others	Private import	Total
1	2	3	4	5	6	7	8	9 =3 to 8
Naptha	2011-12	962.25	8140.82	187.36	0.19	163.22	1767.66	11221.50
	2012-13	897.96	9412.21	342.01	0.00	203.07	1434.16	12289.40
	2013-14	515.90	9463.94	215.11	0.00	240.27	869.98	11305.20
	2014-15	301.49	9530.06	199.24	0.00	207.53	843.71	11082.03
	2015-16	315.89	10350.23	50.30	0.00	37.07	2517.36	13270.84
	2016-17	349.35	10350.89	60.20	0.00	57.59	2422.75	13240.78
	2017-18	367.74	10010.95	66.53	0.00	674.50	1768.89	12888.61
	2018-19	351.61	10601.63	5.26	0.00	1445.26	1727.48	14131.23
	2019-20	149.70	10874.50	0.40	0.00	1937.64	1305.55	14267.78
	2020-21 (P)	65.66	11339.35	70.22	0.00	1491.65	1133.47	14100.36
Growth rate of 2020-21 over 2019-20(%)		-56.14	4.27	-	-	-23.02	-13.18	-1.17
CAGR 2011-12 to 2020-21 (%)		-25.79	3.75	-10.33	-	27.87	-4.82	2.57

Table 6.6 (G) : Yearwise Consumption of Selected Petroleum Products - Sectorwise(end use)					
('000 Tonnes)					
Petroleum Product	Year	Domestic	Commercial/ Industry	Others	Total
1	2	3	4	5	6=3 to 5
SKO(Kerosene)	2011-12	8045.00	61.00	123.00	8229.00
	2012-13	7349.04	37.18	115.28	7501.50
	2013-14	7008.86	107.30	48.61	7164.77
	2014-15	6917.34	60.11	109.26	7086.72
	2015-16	6648.94	63.94	113.43	6826.31
	2016-17	5204.12	77.11	115.58	5396.81
	2017-18	3633.59	96.99	114.54	3845.12
	2018-19	3231.21	97.30	130.95	3459.46
	2019-20	2173.71	86.52	136.61	2396.83
	2020-21 (F)	1586.60	68.60	142.70	1797.90
Growth rate of 2020-21 over 2019-20(%)		-27.01	-20.71	4.46	-24.99
CAGR 2011-12 to 2020-21 (%)		-16.51	1.31	1.66	-15.55

Table 6.7: Yearwise Consumption of Natural Gas - Sectorwise

(Figures in MMSCM)

Sector	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (P)	% Share of Total
1	2	3	4	5	6	7	8	9	10	11	12
(a) Energy Purpose											
Power	22,628	16,078	11,284	10,720	10,889	11,616	12,028	12,005	11,080	10,836	18
Industrial & Manufacturing	313	269	261	533	545	794	999	1,086	701	555	1
City or Local Natural Gas											
Distribution Network incl.	5,599	5,780	5,904	5,416	5,464	7,350	8,585	9,206	10,883	9,230	15
Road Transport											
Agriculture (Tea Plantation)	175	182	196	180	187	183	189	192	200	177	0
Internal Consumption for Pipeline System	385	387	372	351	410	471	496	541	525	439	1
Refinery	4,257	3,891	3,968	4,575	5,077	5,374	6,533	7,047	7,786	7,911	13
LPG Shrinkage	1,068	1,027	982	1,005	754	759	798	874	858	900	1
Miscellaneous	9,064	7,976	7,479	5,941	4,111	3,746	3,226	3,393	4,209	4,569	8
Total (a)	43,490	35,590	30,446	28,721	27,437	30,294	32,854	34,343	36,241	34,617	57
(b) Non-Energy Purpose											
Fertilizer Industry	14,003	14,733	15,869	15,190	16,135	15,429	14,676	14,987	16,115	17,781	29
Petrochemical	1,858	2,486	2,405	2,890	3,733	4,170	4,024	3,386	3,569	3,072	5
Sponge Iron	1,333	1,106	274	154	544	885	1,278	1,124	567	647	1
Total (b)	17,194	18,325	18,548	18,234	20,412	20,484	19,978	19,497	20,251	21,500	35
Total Sectorial Sales (a+b)	60,684	53,915	48,994	46,955	47,849	50,778	52,832	53,840	56,492	56,117	93
Total Consumption **	64,451	57,367	52,375	51,300	52,517	55,697	59,170	60,798	64,144	60,645	100
Total Consumption in MMSCMD	176.09	157.17	143.49	140.55	143.49	152.59	162.11	166.57	175.26	166.15	-

Note: **: Availability Basis (Net Production+LNG Imports)

P: Provisional

1. Re-classification among the sectors of consumption of natural gas under energy and non-energy sectors, has been done depending on usage. Sectors where natural gas is being used as feedstock are

2. Sectorial Sales/consumption of natural gas includes RLNG.

3. Total may not tally due to rounding off.

4. The reasons for the variation between the consolidated availability and the consumption can be attributed to stock changes, conversion factor (volume/energy) and the provisional data reported by the

Source: PPAC

Note : LPG shrinkage is being shifted from Non-Energy purpose to Energy Purpose. Since, LPG shrinkage is a transformation process and LPG produced is further used for energy purposes to meet domestic / household energy requirements. Therefore, it has been shifted from 'non energy purpose' to 'energy purpose'

Table 6.8: Yearwise Consumption of Electricity - Sectorwise(in Giga Watt Hour = 10⁶ Kilo Watt Hour)

Year	Industry	Agriculture	Domestic	Commercial	Traction & Railways	Others	Total Electricity Consumed
1	2	3	4	5	6	7	8=2 to 7
2011-12	3,52,291	1,40,960	1,71,104	65,381	14,206	41,252	7,85,194
2012-13	3,65,989	1,47,462	1,83,700	72,794	14,100	40,256	8,24,301
2013-14	3,84,418	1,52,744	1,99,842	74,247	15,540	47,418	8,74,209
2014-15	4,18,346	1,68,913	2,17,405	78,391	16,177	49,289	9,48,522
2015-16	4,23,523	1,73,185	2,38,876	86,037	16,594	62,976	10,01,191
2016-17	4,40,206	1,91,151	2,55,826	89,825	15,683	68,493	10,61,183
2017-18	4,68,613	1,99,247	2,73,545	93,755	17,433	70,834	11,23,427
2018-19	5,19,196	2,13,409	2,88,243	98,228	18,837	72,058	12,09,972
2019-20	5,32,820	2,11,295	3,08,745	1,06,047	19,148	70,031	12,48,086
2020-21 (P)	5,04,200	2,15,000	3,15,000	1,02,000	18,500	72,300	12,27,000
% share in 2020-21 (%)	41.09	17.52	25.67	8.31	1.51	5.89	100.00
Growth rate of 2020-21 over	-5.37	1.75	2.03	-3.82	-3.38	3.24	-1.69
CAGR 2011-12 to 2020-21 (%)	4.06	4.80	7.02	5.07	2.98	6.43	5.09

(P): Provisional

Source : Central Electricity Authority.

Table 6.9 : Electricity Generated (from Utilities), Distributed, Sold and Transmission Lossesin Giga Watt hour =10⁶ Kilo Watt hour

Year	Net Electricity Generated from Utilities	Purchases from Non-Utilities + Net Import from Other Countries	Net Electricity Available for Supply	Sold to Ultimate Consumers	Loss in transmission & distribution	Loss in transmission & distribution (%)
1	2	3	4=2+3	5	6=4-5	7
2011-12	8,65,952	15,514	8,81,466	6,73,068	2,08,398	23.64%
2012-13	9,00,380	20,849	9,21,229	7,08,997	2,12,232	23.04%
2013-14	9,56,488	17,948	9,74,436	7,51,908	2,22,528	22.84%
2014-15	10,40,582	13,773	10,54,355	8,14,250	2,40,105	22.77%
2015-16	10,88,282	15,947	11,04,228	8,63,364	2,40,864	21.81%
2016-17	11,54,314	8,977	11,63,290	9,14,093	2,49,197	21.42%
2017-18	12,21,307	11,198	12,32,505	9,73,131	2,59,375	21.04%
2018-19	12,88,393	19,291	13,07,685	10,37,518	2,70,167	20.66%
2019-20	13,00,116	22,932	13,23,048	10,52,346	2,70,701	20.46%
2020-21 (P)	12,91,187	18,000	13,09,187	10,41,823	2,67,364	20.42%
Growth rate of 2020-21 over 2019-20(%)	-0.69	-21.51	-1.05	-1.00	-1.23	-0.19
CAGR 2010-11 to 2020-21 (%)	4.54	1.67	4.49	4.97	2.81	-1.61

(P): Provisional

Source : Central Electricity Authority.