

Chapter

Foreign Trade and Prices of Energy Resources

4



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Trade and Prices

Many challenges are faced by the developing countries and the international community including ensuring, through national and international measures, that energy is (a) accessible to households and industries; (b) affordable for all, especially the poor; (c) sustainably produced and consumed; and (d) available for promoting development locally and globally.

These challenges coupled with the imperative to mitigate climate change, i.e. “decarbonization” of energy generation and use by households and industries, further intensifies high volatility present in the international energy market, and thus impacts energy importers/exporters countries equally.

Countries need to encourage a more efficient management of energy resources, coupled with an accelerated growth of renewable and sustainable sources of energy. The need of the hour, thus, being an increased investment, development of necessary infrastructure and also improvement in trade regimes in order to achieve self-sufficiency in terms of import dependency.

To holistically mitigate the effects of the situation, Energy policies in India in the recent years have been designed to address the country’s growing energy deficit and to focus on developing alternative sources of energy, particularly nuclear, solar, and wind energy. India has been focusing on reducing its dependence on energy imports and diversifying its energy basket. The aim is to achieve Energy security - the continuous availability of energy in varied forms, in sufficient quantities, at reasonable prices, to fuel economic growth in the coming years. Moreover, the international community should promote an enabling environment for the development and utilization of financing mechanisms for exchange of new energy technology and infrastructure for an enabling environment in this sector to thrive.

Highlights

- There has been an increasing trend in the net import of coal in the recent years. Over the last ten years, the Net Import of coal steadily increased from 143.34 MTs in 2012-13 to 216.54 MTs in 2014-15. This was followed by a marginal decline in the succeeding 2 years but again have started increasing and reached to 247.51 MTs in 2019-20. However, during 2022-23(P), there is a sharp increase of 14.08% in the Net Import of Coal w.r.t the FY: 2021-22. During FY:2022-23(P), the net-Import of Coal came out to be 236.51 MTs as compared to 207.31 MTs during FY:2021-22.
- India is also highly dependent on imports of crude oil to meet domestic consumption. Imports of crude oil have increased from 184.80 MTs during 2012-13 to 226.95 MTs during 2019-20. But during FY: 2020-21 the same has been reduced to 196.46 MTs, a reduction of 13% over the FY: 2019-20. The same may be due to COVID-19 pandemic. However, during FY:2022-23(P) the fuel import has again experienced a growth of 2.33% over previous year and reached at 232.73 MTs.
- India is an exporter of Petroleum Products. The export of petroleum products has increased rather slowly from 60.40 MT during 2011-12 to 65.69 MT during 2019-20. But during FY:2020-21 the same has been reduced to 56.77 MTs which again rose to 62.75 MTs during FY:2021-22. During FY:2022-23(P) the same stood at 61.04 MTs registering a negative growth of close to -2.73%.
- The import of Natural Gas has experienced a steady increase over time. From a figure of 17.61 BCM (Billion Cubic Meter) during 2012-13 to 33.89 BCM during 2019-20 i.e. an increase of over 92% in a span of 7 years. However, the same stood at 26.30 BCM for the year 2022-23(P) as compared to 31.03 BCM in the 2021-22 recording a decline of (-)15.22%. The CAGR of import of natural gas between 2013-14 and 2022-23(P) is having a positive growth rate of 4.43%.
- India's exports of electricity started rising as compared to gross imports since 2016-17. The export of electricity has increased from 1651.00 GWh in 2013-14 to 10252.77 GWh in 2022-23(P) with a CAGR of 22.50%.
- India, however also imports a decent amount of electricity to meet its' domestic demand. The Import figure during FY:2012-13 was 4,795 GWh which, after having a decline during FY:2018-19 (4,396 GWh), has displayed a steady growth upto FY:2020-21 having a figure of 9547.70 GWh. However, during FY:2022-23(P) the same has been found to be reduced to 7842.53 GWh, a decline of -1.65% over FY:2020-21. (Table 4.1(Contd.))

Fig 4.1: Trends of Import of Coal, Crude oil, Petroleum products in India during FY : 2013-14 to 2022-23(P)

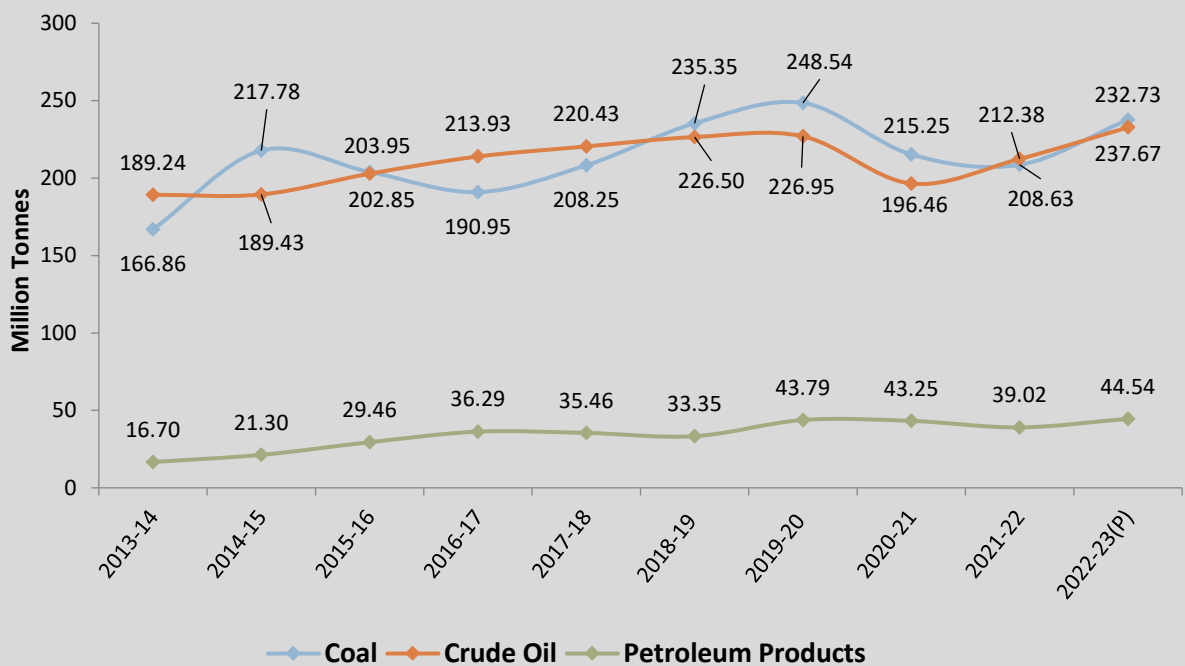


Fig 4.2: Trends of Import of Natural Gas and Electricity in India during FY : 2013-14 to 2022-23(P)

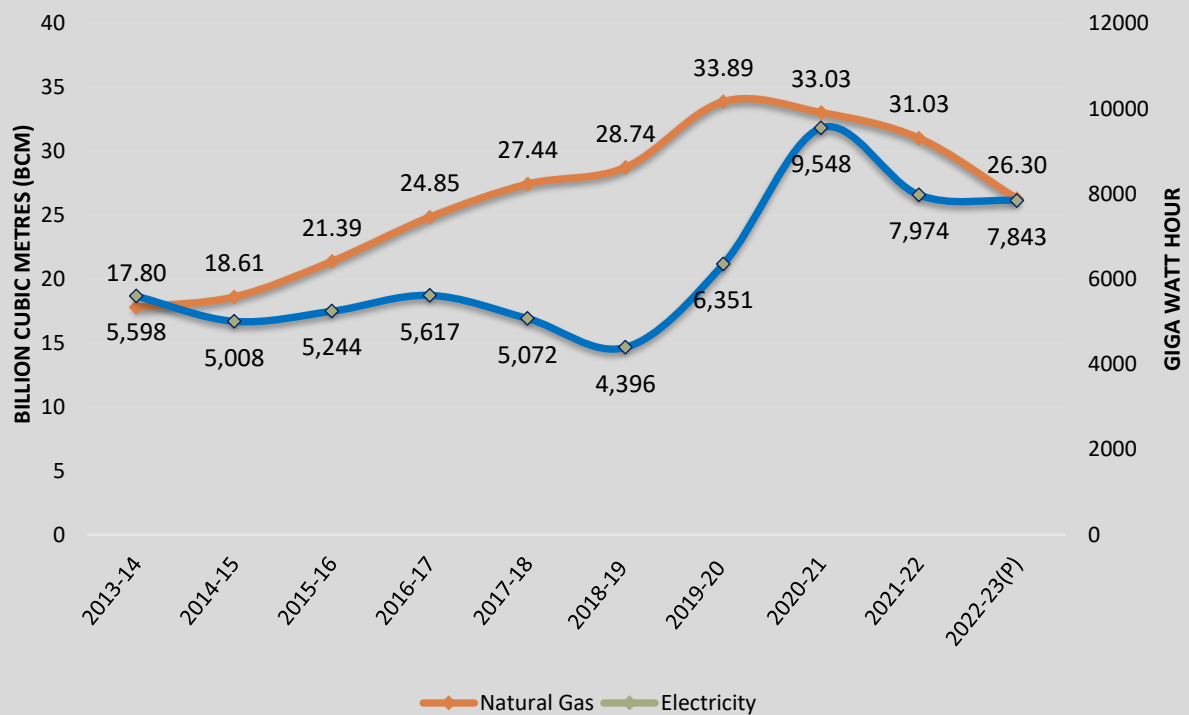


Fig 4.3: Yearwise Wholesale Price Indices (base : 2011-12) of Energy Commodities

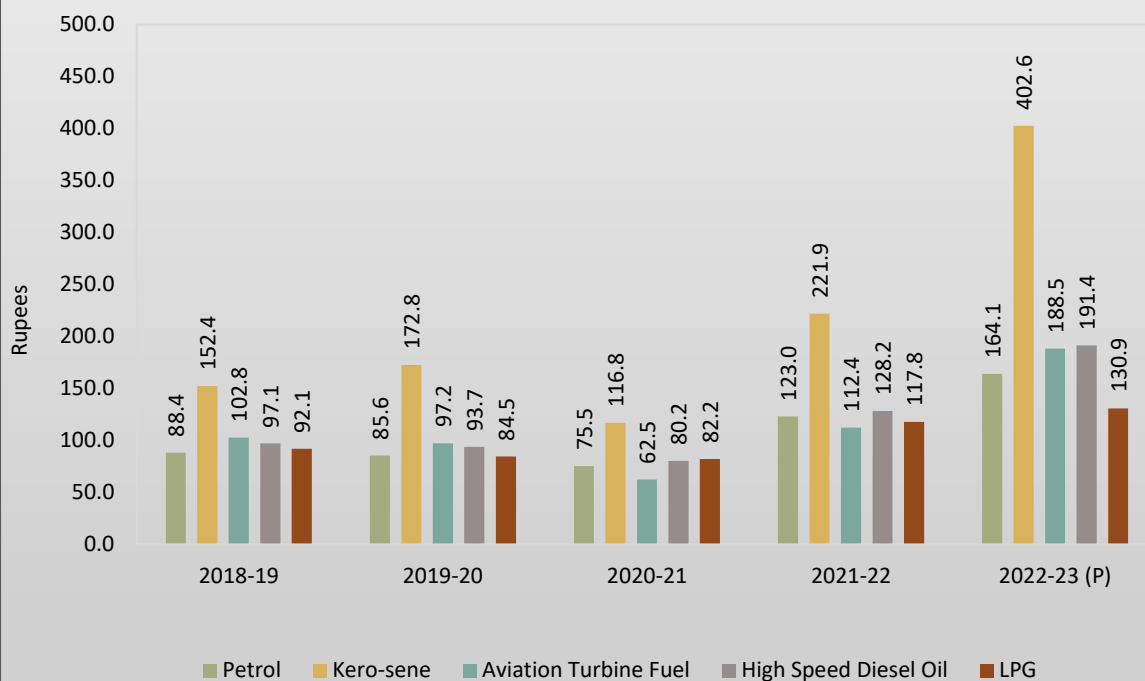
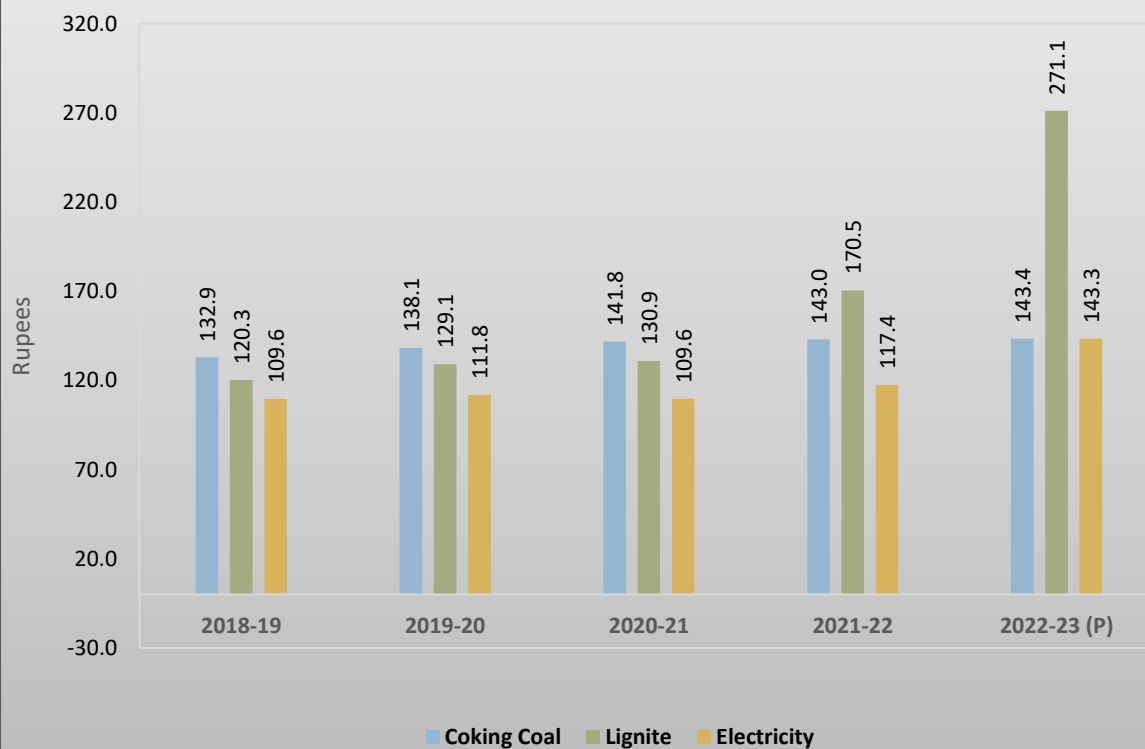


Fig 4.4: Yearwise Wholesale Price Indices (base 2011-12) of Energy Commodities



Chapter 4: Foreign Trade and Prices of Energy Resources

Table 4.1: Yearwise Foreign Trade in Coal, Crude Oil, Petroleum Products(total), Natural Gas and Electricity

(Million Tonnes)

Year	Coal			Lignite			Crude Oil			Petroleum Products		
	Gross Imports	Exports	Net Imports	Gross Imports	Exports	Net Imports	Gross Imports	Exports	Net Imports	Gross Imports	Exports	Net Imports
1	2	3	4=2-3	5	6	7=5-6	8	9	10=8-9	11	12	13=11-12
2013-14	166.86	2.19	164.67	0.00	0.00	0.00	189.24	0.00	189.24	16.70	67.86	-51.17
2014-15	217.78	1.24	216.54	0.00	0.00	0.00	189.43	0.00	189.43	21.30	63.93	-42.63
2015-16	203.95	1.58	202.37	0.00	0.00	0.00	202.85	0.00	202.85	29.46	60.54	-31.08
2016-17	190.95	1.77	189.18	0.02	0.01	0.01	213.93	0.00	213.93	36.29	65.51	-29.23
2017-18	208.25	1.50	206.75	0.01	0.00	0.01	220.43	0.00	220.43	35.46	66.83	-31.37
2018-19	235.35	1.31	234.04	0.02	0.08	-0.06	226.50	0.00	226.50	33.35	61.10	-27.75
2019-20	248.54	1.03	247.51	0.05	0.09	-0.04	226.95	0.00	226.95	43.79	65.69	-21.90
2020-21	215.25	2.95	212.31	0.02	0.19	-0.17	196.46	0.00	196.46	43.25	56.77	-13.52
2021-22	208.63	1.32	207.31	0.01	0.02	-0.01	212.38	0.00	212.38	39.02	62.75	-23.74
2022-23(P)	237.67	1.16	236.51	0.02	0.00	0.02	232.73	0.00	232.73	44.54	61.04	-16.50
Growth rate of 2022-23 over 2021-22(%)	13.92	-11.63	14.08	-	-	-	9.58	-	9.58	14.16	-2.73	-30.50
CAGR 2013-14 to 2022-23 (%)	4.01	-6.78	4.10	-	-2.79	-	2.33	-	2.33	11.52	-1.17	-11.82

Table 4.1 (Cont.): Year wise Foreign Trade in Coal, Crude Oil, Petroleum Products, Natural Gas and Electricity

Year	Natural Gas (BCM)			Electricity (Gwh)		
	Gross Imports	Exports	Net Imports	Gross Imports	Exports	Net Imports
1	14	15	16=14-15	17	18	19=17-18
2012-13	17.61	0.00	17.61	4794.50	153.53	4640.97
2013-14	17.80	0.00	17.80	5597.90	1651.00	3946.90
2014-15	18.61	0.00	18.61	5007.74	4432.76	574.98
2015-16	21.39	0.00	21.39	5244.21	5150.30	93.91
2016-17	24.85	0.00	24.85	5617.30	6710.19	-1092.89
2017-18	27.44	0.00	27.44	5072.08	7202.86	-2130.78
2018-19	28.74	0.00	28.74	4395.86	8468.94	-4073.08
2019-20	33.89	0.00	33.89	6350.60	9490.91	-3140.31
2020-21	33.03	0.00	33.03	9547.70	9573.55	-25.85
2021-22	31.03	0.00	31.03	7974.01	9249.39	-1275.39
2022-23(P)	26.30	0.00	26.30	7842.53	10252.77	-2410.24
Growth rate of 2022-23 over 2021-22(%)	-15.22	-	-15.22	-1.65	10.85	-
CAGR 2013-14 to 2022-23 (%)	4.43	-	4.43	3.82	22.50	-

(P): Provisional.

Sources:

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

Chapter 4: Foreign Trade and Prices of Energy Resources

Table 4.2: Year wise Wholesale Price Indices of Energy Commodities

(Base Year 2011-12=100)

Year	Petrol	Kero-sene	Aviation Turbine Fuel	High Speed Diesel Oil	Bitumen	Furnace Oil	Lubri-cants	LPG	Coking Coal	Petroleu m Coke	Lignit e	Electricit y
1	2	3	4	5	6	7	8	9	10	11	12	13
2013-14	124.6	109.3	119.7	126.3	112.1	111.5	114.2	118.6	101.2	92.8	99.2	103.6
2014-15	108.6	103.5	105.1	114.8	106.1	93.6	118.8	103.5	101.4	94.3	99.2	105.7
2015-16	75.7	88.4	69.5	73.4	77.1	54.3	120.8	76.7	101.4	78.3	94.7	105.3
2016-17	72.4	94.3	69.3	74.4	68.0	58.1	116.8	72.0	108.2	93.0	90.2	104.2
2017-18	80.3	117.8	78.7	84.4	71.3	68.8	114.0	82.2	134.1	117.2	104.2	103.7
2018-19	88.4	152.4	102.8	97.1	85.6	94.7	124.8	92.1	132.9	149.7	120.3	109.6
2019-20	85.6	172.8	97.2	93.7	82.8	81.0	131.7	84.5	138.1	128.6	129.1	111.8
2020-21	75.5	116.8	62.5	80.2	77.9	67.9	137.2	82.2	141.8	132.4	130.9	109.6
2021-22	123.0	221.9	112.4	128.2	113.2	108.2	162.0	117.8	143.0	220.1	170.5	117.4
2022-23 (P)	164.1	402.6	188.5	191.4	131.4	127.2	180.0	130.9	143.4	293.6	271.1	143.3
Increase in 2022-23 over 2021-22 (%)	33.41	81.43	67.70	49.30	16.08	17.56	11.11	11.12	0.28	33.39	59.00	22.06

* Annual average of monthly index, Financial Year wise

Source: Office of the Economic Advisor, Ministry of Commerce & Industry.