

# India's Coal Production to Cross 800 MT in FY23

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## Scaling New Heights

India's coal production for FY22 reached a new milestone of 777 Metric Tonne (MT) in line with CareEdge Research's earlier estimate of crossing 750 MT for the first time compared to 716 MT and 731 MT in FY21 and FY20, respectively. While the degrowth in FY21 was on account of the pandemic-induced lockdowns and lower than expected electricity and fuel demand, the high growth of 8.6 per cent in FY22 (on the lower base) was driven by the post-pandemic opening of the economy and induced demand for electricity and fuel.

**Table 1: Coal production from April to March**

Production (in MT)	FY22	FY21	FY20	Growth % (FY22 vs. FY21)	Growth % (FY21 vs. FY20)	Growth % (FY22 vs. FY20)
CIL	622.6	596.2	602.1	4.4	-1.0	3.4
SCCL	65.0	50.6	64.0	28.5	-21.0	1.6
Captives	89.6	69.2	65.3	29.5	6.0	37.3
<b>Total</b>	<b>777.3</b>	<b>716.0</b>	<b>731.4</b>	<b>8.6</b>	<b>-2.1</b>	<b>6.3</b>

Source: Ministry of Coal, CareEdge Research

## Sectoral Coal Supplies

**Table 2: Coal Despatch**

Sectors	Despatch (in MT)			Growth (%)		
	FY22	FY21	FY20	FY22 vs. FY21	FY21 vs. FY20	FY22 vs. FY20
Power	677.7	544.1	567.3	24.6	-4.1	19.5
CPP*	35.6	45.8	53.1	-22.2	-13.7	-32.9
Others**	104.9	101.6	86.9	3.3	16.8	20.6
<b>Total</b>	<b>818.2</b>	<b>691.4</b>	<b>707.2</b>	<b>18.3</b>	<b>-2.2</b>	<b>15.7</b>

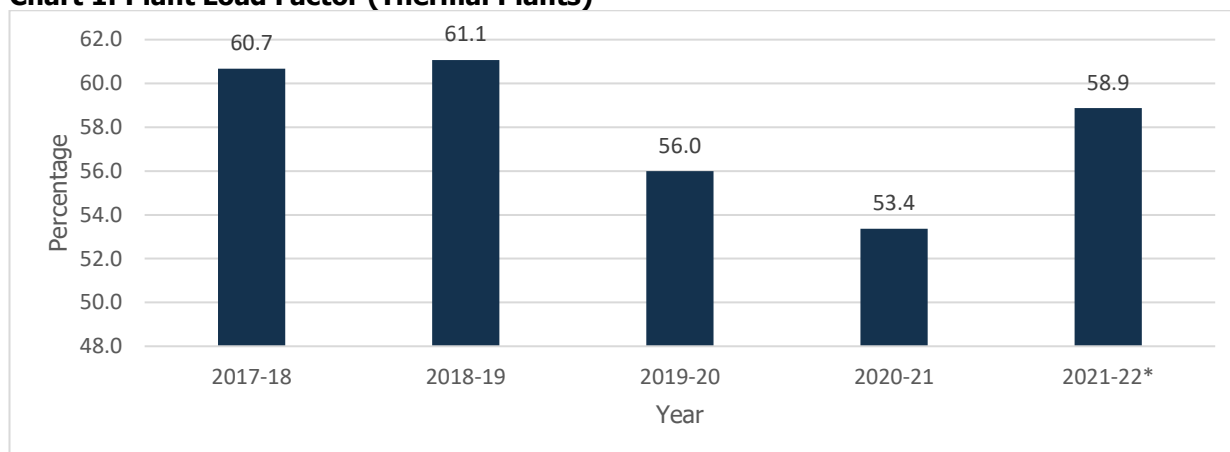
Source: Ministry of Coal, CareEdge Research

\*CPP- Captive power plants. \*\*Others – cement, steel, sponge iron, fertilizers, textiles, chemicals, paper & pulp, and other basic metals

The share of coal despatched to the power sector increased to around 83 per cent in FY22 from 79 per cent in FY21. Unlike the power sector, the share of coal despatch to captive power plants reduced from 7 per cent in FY21 to 4 per cent of the total coal despatched in FY22 and the share of coal despatch to others also reduced from 15 per cent in FY21 to 13 per cent in FY22. The non-power sector, except Captive power plant did not witness any major change in the supply.

## Plant Load Factor

**Chart 1: Plant Load Factor (Thermal Plants)**



Source: Central Electricity Authority (CEA), CMIE, CareEdge Research, \*Data is provisional

PLF (Plant Load Factor) or capacity utilisation is measured in terms of the proportion of electricity generation in comparison to overall installed capacity. The PLFs have improved in FY22 compared to FY21 and FY20 due to increased supply by domestic coal producers to keep up with the increased demand.

## Coal Despatch to Power Sector

The increase in domestic coal despatch to the power sector was on account of reduced imported coal volumes, apart from the increase in overall demand for power generation driven by post-pandemic economic activity and hotter-than usual summer. As per data from the Ministry of Coal, imported coal volumes (for thermal power plants) decreased by around 43 per cent from 42.4 MT for eleven months from April-20 to February-21 to 24.2 MT from April-21 to February-22.

While the imports declined significantly on account of the rising international coal prices and the ongoing geopolitical tensions, the coal consumption in thermal power plants rose by nearly 15 per cent from 550.3 MT for an eleven-month period from April-20 to February-21 to 632 MT from April-21 to February-22. Domestic coal producers are continuously trying to improve their supply to the power sector to overcome that gap between demand-supply caused by a reduction in import volumes of imported coal power plants.

## Power Generation

**Table 3: Source-wise Power Generation**

Source	Apr-21 to Mar-22 (in MU)	Apr-20 to Mar-21 (in MU)	Growth % (FY22 vs. FY21)
Coal	1,041,394	950,568	9.6
Lignite	37,051	30,408	21.8
Hydro	151,695	150,240	1.0
Nuclear	47,019	42,893	9.6
Gas, Naptha & Diesel	36,259	51,154	-29.1
RES (Wind, Solar, Biomass & Others)	1,69,396	1,47,248	15.0
<b>Total</b>	<b>1,482,814</b>	<b>1,372,510</b>	<b>8.0%</b>

Source: CEA, CareEdge Research, Data is provisional

\*MU- Figures in Million Units

Coal-based power generation has registered a growth of 9.6 per cent in FY22 over FY21, indicating an improved coal supply for power generation. In addition to this, the share of coal-based generation in total power generated

increased marginally from 76.6 per cent in FY21 to around 77.4 per cent in FY22. In FY22, the share of lignite-based power generation increased to 2.8 per cent over 2.4 per cent in FY21. While the nuclear-based power generation remained around 3.5 per cent of the total power generated respectively, and the share of hydro and gas, naphtha and diesel reduced by nearly 1.5 per cent compared to FY21.

The share of RES (Wind, Solar, Biomass and others) based power generation has increased from 11.9 per cent in FY21 to nearly 13 per cent of the total power generated in FY22 indicating a stable transition towards green resources for power generation.

### Coal Stocks at Non-pithead Power Plants

**Table 4: Coal Stock at Non-pithead Plants**

Date	No. of Plants	Capacity (MW)	Daily Requirement (MMT)*	Total Stock (MMT)*	Total Stock (in Days)
30-Apr-21	118	131546	1.5	17.8	12
31-May-21	119	132866	1.4	23.6	17
30-Jun-21	118	132656	1.5	24.1	16
31-Jul-21	118	132656	1.4	19.2	14
31-Aug-21	119	133256	1.5	9.5	7
30-Sep-21	119	129866	1.4	5.6	4
31-Oct-21	119	129866	1.4	7.6	6
30-Nov-21	119	131096	1.4	13.4	10
31-Dec-21	162	163442	2.2	17.4	8
31-Jan-22	162	163442	2.2	18.1	8
28-Feb-22	155	163944	2.2	18.0	8
31-Mar-22	155	163944	2.2	17.7	8
25-Apr-22	147	163464	2.2	14.2	6

Source: Central Electricity Authority (CEA), CareEdge Research

\*MMT- Million Metric Tonnes, Data are provisional

As per CEA data, the pithead power plants have around 79% of their normative stock available, while non-pithead plants (non-pit head plants are power plants where the coal mines are more than 1,500 km away) have only around 25% of their normative stock available as on April 25, 2022. Although the stocks have improved, they remain lower than normative stock levels, shortage of stocks at most power plants is hampering operation and affecting the profitability of such power plants.

### Coal Imports

In FY22 (April 2021–February 2022), Coal imports saw a decline of around 7 per cent albeit lower base over FY21 (April 2020–February 2021) on account of high international prices led by the Covid-19 pandemic and the ongoing geopolitical tensions between Russia and Ukraine.

**Table 5: Total Coal Imports**

Type of Coal	Up to February		
	FY 22 (MT)	FY 21 (MT)	Growth (%) y-o-y
Non-Coking	112.4	127.3	-11.7
Coking	46.9	44.0	6.6
Others	21.4	23.2	-8.0
<b>Total</b>	<b>180.6</b>	<b>194.5</b>	<b>-7.1</b>

Source: Ministry of Coal, CareEdge Research

Note: \*Non-Coking Coal means Bituminous and Steam Coal

To bridge the gap between the requirement and indigenous availability and to improve the quality of coal Steel Authority of India Limited (SAIL) and other steel manufacturing units are mainly importing coking coal. While Coal-based power plants, cement plants, captive power plants, sponge iron plants, industrial consumers and coal traders are importing non-coking coal to meet their requirements.

**Table 6: Segment-wise Coal Imports**

Segment	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
Thermal Power Plants	24.2	42.4	-42.92
Cement	10.5	9.3	13.0
Sponge Iron	1.3	1.5	-14.6
Steel	32.5	27.7	17.5
Others	52.2	66.5	-21.6

Source: Central Electricity Authority (CEA), CareEdge Research

Major non-power sectors such as cement and steel saw an uptick in coal imports in FY22 (April 21- February 22) while the power sector saw a decline in coal imports amid increased domestic coal supply towards the power sector.

**Table 7: Coal Consumption at Thermal Power Plants**

Type of Coal	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
Domestic Coal	605.6	492.3	23.01
Imported Coal Receipt	24.2	42.4	-42.92
Total Receipt	629.7	534.8	17.74
Coal Consumption	632	550.3	14.85

Source: Ministry of Coal, CareEdge Research

Thermal power plants saw a hike in coal consumption on account of increased demand for electricity generation. And due to the decline in imports, this hike in coal requirement by thermal power plants is being met through domestic coal.

### Non-power Sector

Key non-power sectors such as cement, steel, and sponge iron (direct reduced iron) are impacted by lower coal supplies as the supply to the power sector has increased significantly to meet the hike in demand for coal for power generation and high international coal prices.

**Table 8: Non-Coking Coal supply to Cement Sector**

Items (MT)	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
Cement Production	322.5	261.6	23.3
Domestic Coal Supply	6.8	6.1	11.5
Coal Import	10.5	9.3	13.0

Source: Ministry of Coal, CareEdge Research

**Table 9: Non-Coking Coal supply to DRI (Sponge Iron) Sectors**

Items (MT)	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
DRI Production	35.9	31.1	15.7
Domestic Coal Supply	7.5	8.5	-12.5
Coal Import	1.3	1.5	-14.6

Source: Ministry of Coal, CareEdge Research

**Table 10: Coking Coal Supply to Steel Sector**

Items (MT)	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
Hot Metal Production	71.4	62.3	14.5
Domestic Coal Supply	7.2	7.8	-7.6
Coal Import	32.5	27.7	17.5

Source: Ministry of Coal, CareEdge Research

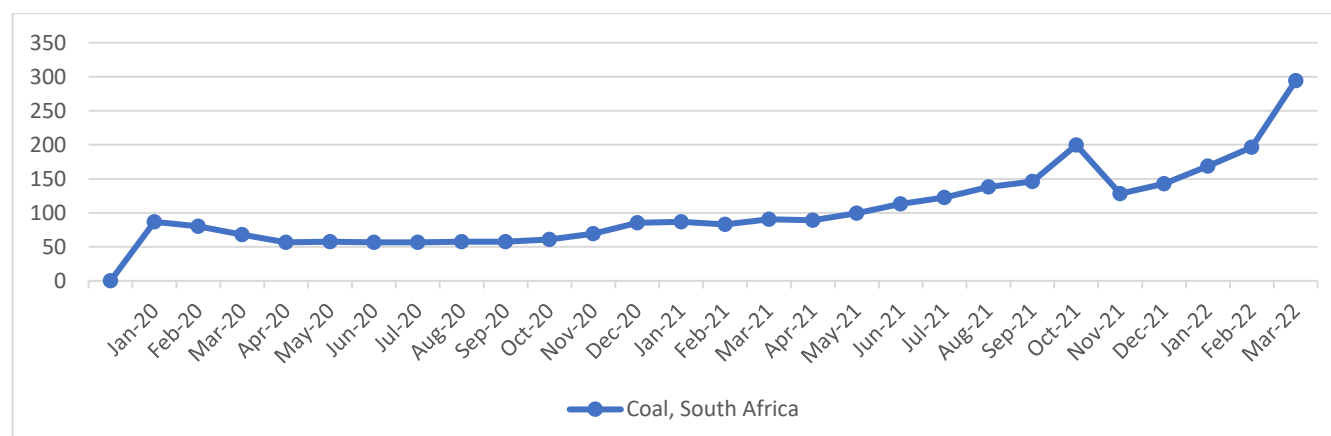
**Table 11: Supply to Other Sectors**

Source (MT)	Up to February		
	FY 22	FY 21	Growth (%) y-o-y
Domestic Supply	74.7	66.0	13.2
Import	52.2	66.5	-21.6
<b>Total</b>	<b>74.2</b>	<b>132.5</b>	<b>-44.0</b>

Source: Ministry of Coal, CareEdge Research

**Coal Prices**

Coal prices of South African thermal, a global benchmark, have been on an upward trajectory since December 21 and the ongoing tension between Russia-Ukraine has impacted the international coal prices even more. The global benchmark has crossed its all-time high price at \$199.7 per tonne and has peaked at around \$295 per tonne as of March 2022. The continuous rise in coal prices is discouraging coal imports which are pressurising domestic coal producers to increase supply to fulfil the coal demand in the country.

**Figure 2: Prices in South Africa (\$/tonne)**

Source: World Bank, CareEdge Research

**Outlook**

Driven by the improved domestic economic outlook and significant infrastructure development, demand for coal is expected to improve in FY23. Key end-use segments are expected to register strong growth and given the fact that domestic coal production rose at a high of 8.5 per cent FY22 over FY21, CareEdge Research expects it to cross 800 MT in FY23.

In the coming months, it is crucial that domestic coal producers work in synergy with the assistance of the Ministry of Coal, Power and Railways to meet the hike in coal demand. The government is considering required policy support and initiatives for logistics operators to divert the cargo traffic from rail/road to the inland waterway which would augur well for imported coal-based power plants.

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