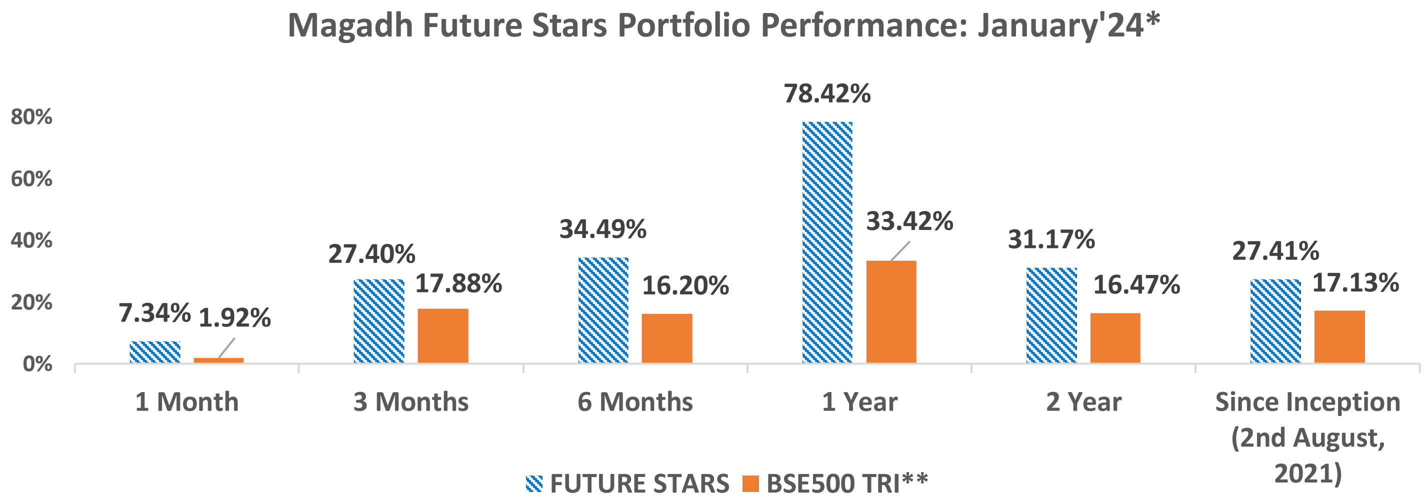
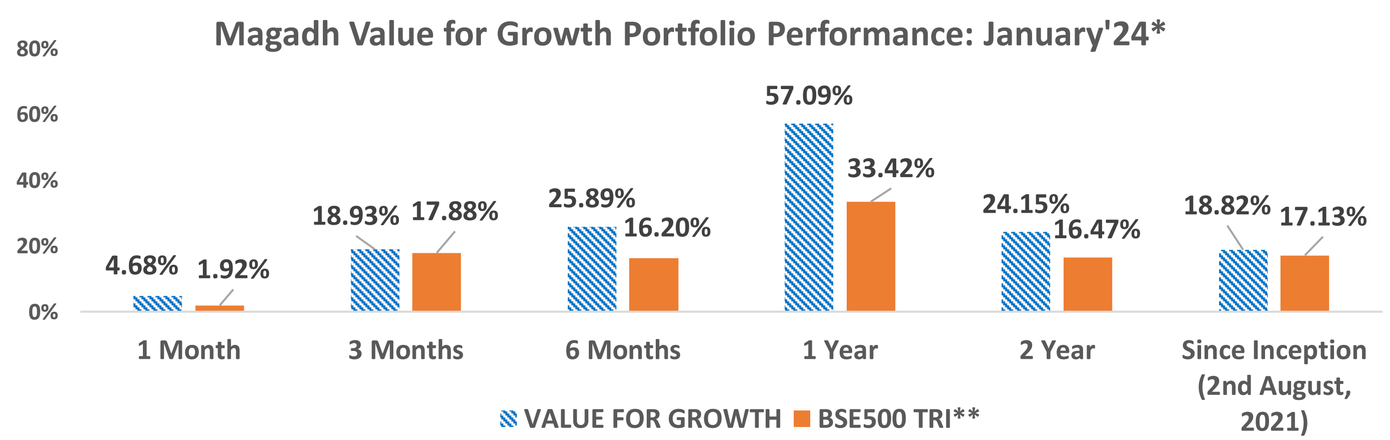
Coal Based Power: Too Early to Write the Epitaph

2024 seems to have started well for India's equity markets even as the year brings about many developments to watch out for. Geopolitics, elections in India and the USA, turn in interest cycle globally, movement of inflation, evolution of China's economy, steps to arrest climate change etc are some of these important developments. But then, how many such years do we remember where the market view in January was clear like a crystal – none, to our memory. Markets are always about future, and future is always fraught with uncertainty.

Accordingly, we believe that sticking to that part of investing process where we can make a difference – like deep fundamental research aimed at estimating a stock's fair value with high probability, controlling our investment behaviour, trying to benefit from market's emotional outbursts, analyzing market and economic history etc- is the key to investing success and to wealth creation. This is what we intend to follow in 2024 also.





Data is for the period Aug 02, 2021 till January 31, 2024. Data for more than one year has been annualized. Past performance is no guarantee of future returns. Performance data provided herein is not verified by SEBI and it is as TWRR - Time Weighted Rate of Return.TRI : Total Returns Index.*

Above is a quick snapshot of our performance as on 31st January, 2024. Our performance in 2023 was satisfying to say the least although we do acknowledge that such performance may not be replicable every year. We believe in the robustness of our investment framework and accordingly expect healthy performance over medium to long term.

We have a decent exposure to some stocks in power value chain. In this letter ahead we delineate our views on the changes gripping the sector and the opportunities available there.

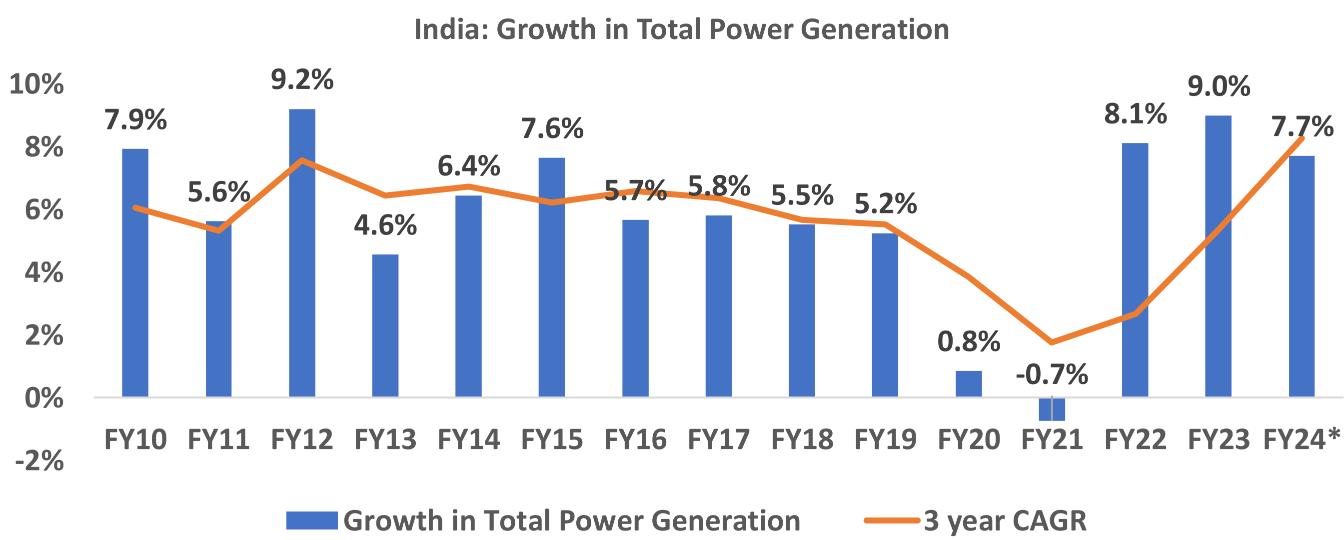
Coal Based Power: Too Early to Write the Epitaph

Power generated by fossil fuels, especially by coal, in last 50 years has been one of the key sources of pollution world wide. Not surprisingly there is a rush to phase out coal based power and to shift to renewable sources of power globally. On the other hand, countries like India with large population, rapid economic growth, and fast growing disposable incomes are in need of sizeable increase in power generation.

In recent times stocks in power and associated sectors have generally performed well. We are interested even fater the recent run up in some of these stocks and see them offering healthy opportunity from a medium term view.

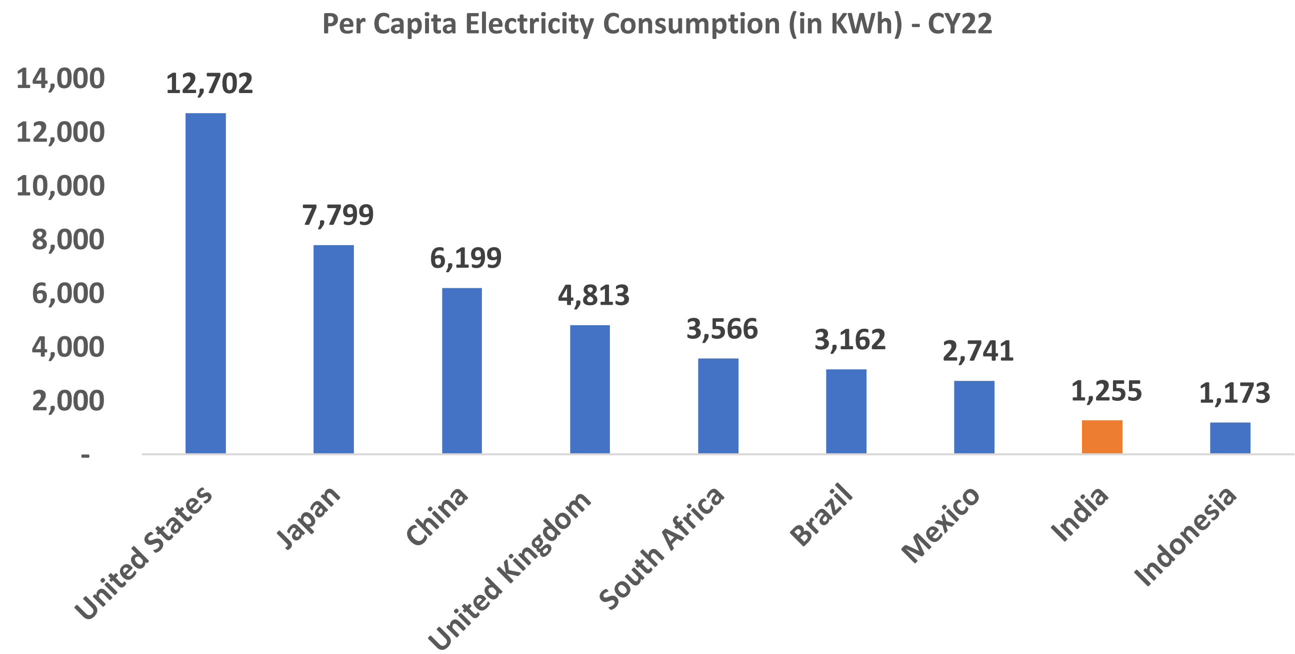
In the following section in this letter we try to summarize the likely developments in this sector in India and the opportunities for investors.

1. **Quick pace of power consumption growth should continue over medium term -** India's power consumption has risen sharply in last 18 months. On a three year rolling basis the growth is set to hit a 20 year high at FY24 end. We expect the high growth trend to continue over medium term. Enhanced electrification, higher power usage with no load-shedding rule, thrust on manufacturing in the economy, fast rising disposable incomes leading to higher penetration of appliances, reducing transmission and distribution losses, and improving balance sheets of distribution companies etc are the factors that make us optimistic on power demand from here.



**Based on adapting data till upto Nov 2023 for FY24*
CAGR = Compound annual growth rate
Source: CEA, Central Electricity Authority.

Power is a sector where reforms in India are still underway and the impact of those reforms should lift the pace of consumption growth of power. The favourable impact on income statements and balamce sheets should be felt on the entire industry chain.



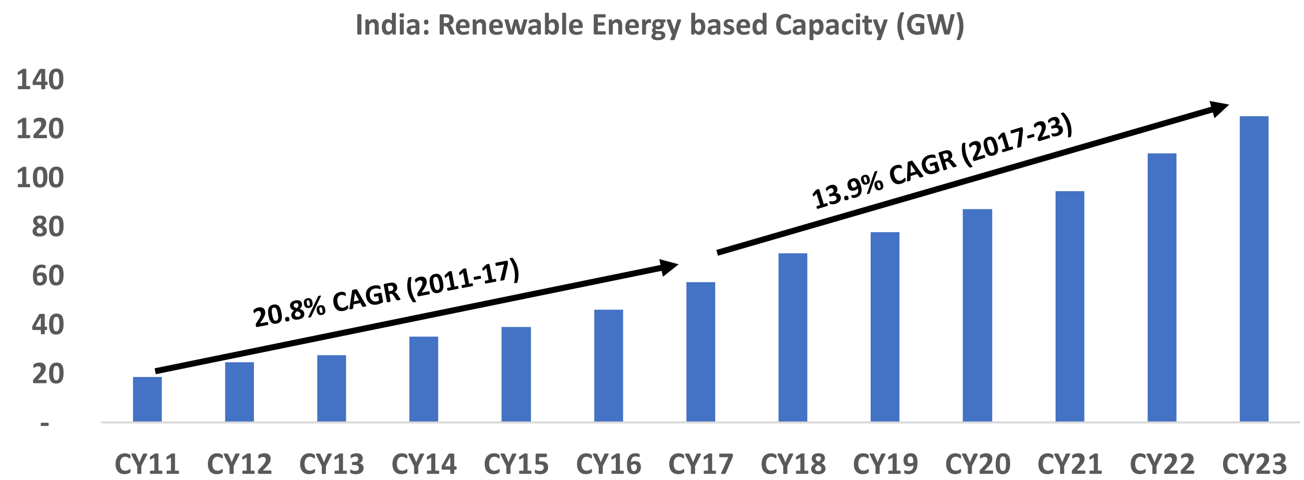
Source: Statista

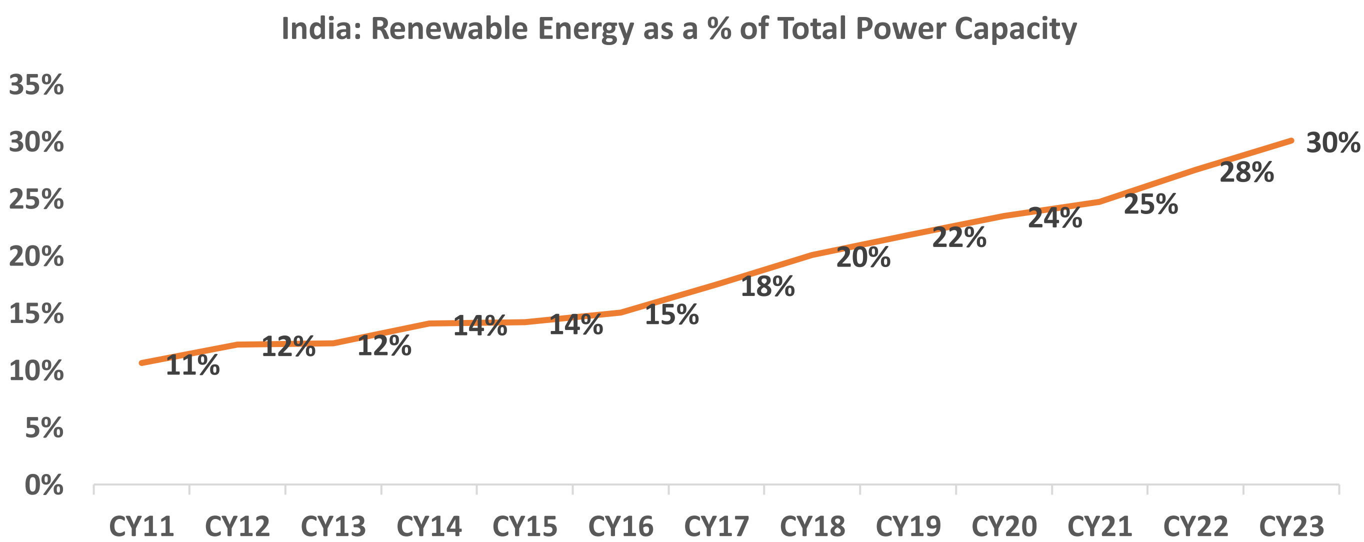
Currently, (based on CY2022 data) India's per capita power consumption is meaningfully lower than even its emerging markets peer group. Even after growing at a hefty pace India's per capita power consumption will be lower than most of the other important emerging markets even though understandably the gap is set to reduce. As per ministry of power, India's per capita power consumption is around 1/3rd of global average. So even if we grow at a hefty pace we will be around 40%-50% of global average by CY2030.

2. **Renewable power capacity growth will continue to soar** – By FY31 renewable power capacity in India will likely exceed 50% of India's total power generation capacity (at FY23 end this was 30%) even as this falls short of the government's aggressive targets. The government has a target to achieve Renewable energy based capacity of 500 GW by 2030 versus the capacity of 119 GW at FY23 end. Out of this a large chunk is likely to come from solar power.

This will be quite a creditable feat for a country that is poor on resources and which has been known for regulatory and procedural delays for large scale projects. However even this spectacular growth may not be able to satiate the rampaging consumption growth that is likely in the country in next 8-10 years.

Indeed, renewables power generation too will likely step up further from here as regulations become more predictable, and as the ecosystem develops and stabilizes.





1 Gigawatt = 1,000 Megawatt

Source : CEA, Central Electricity Authority.

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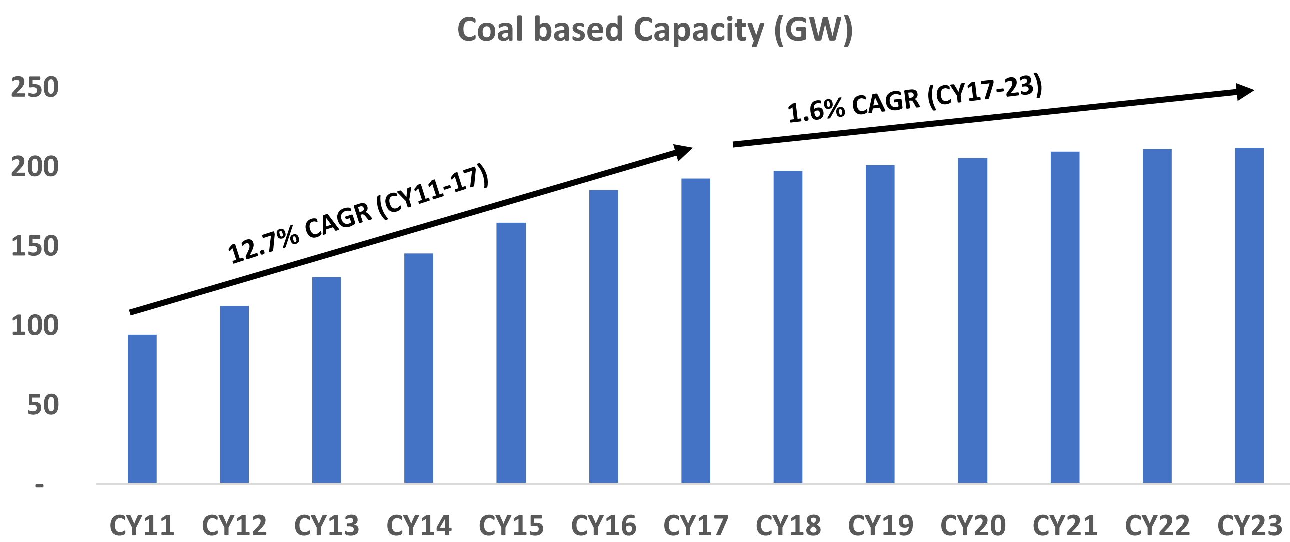
3. **Coal will progressively see a decline in its share** of India's power capacity by CY30 to around 35% from 51% in CY23. However in absolute terms coal will remain relevant for India over next 20-25 years if not more. Particualrly, when it comes to share of power generation, coal based power plants will remain the mainstay of India's power market.
   New coal based power plants will continue to be commissioned till the end of current decade, as against general expectations.

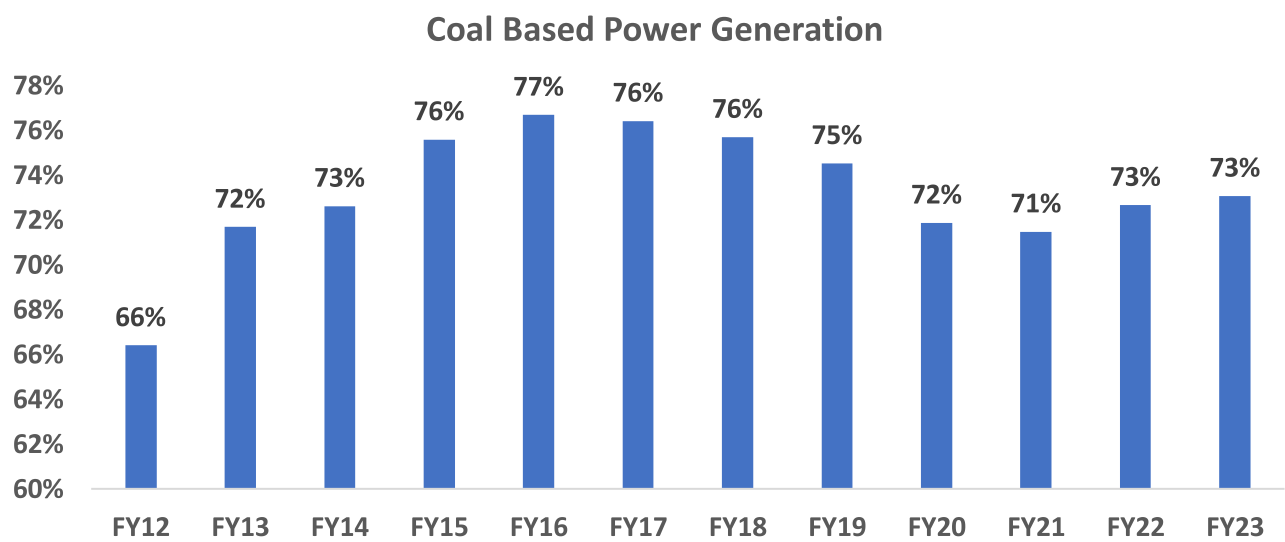


Source : Energy Statistics India

Even as its share in the total power capacity mix is set to decline coal based power capacity will likely grow at a CAGR of about 6% between FY23-FY31. This may seem counterintuitive to many but amid fast growing base load – off an extremely low level- a sharp jump in power requirements may focrce India's hands here. Poor availability of gas, and continued issues with nuclear power capacity expansion imply that coal will have to do the heavy lifting for providing base load power to India's grids. Indeed till even 2 years ago it seemed like that no new coal based power plant would incrementally find its way into the pipeline. However, now it is increasingly getting clear that till FY31 at least 60-70 GW new coal based power plants will come on stream.
Given the understandable stigma attached to this mode of power generation most new coal based power plants will be set up by PSU's or government/quasi government agencies. Not surprisingly, the coal behemoth Coal India Limited has recently received

cabinet approval to set up two pithead based power plants with cumulative power capacity of about 2.2 GW.
Also, India's power transmission capacity has increased substantially in last 10 years. Hence coal based power capacity can now be set up anywhere, especially closer to coal mines, without bothering much regarding logistics. Less volume of coal transportation will at least to some extent curb the pollution associated with a typical coal based power palnt.

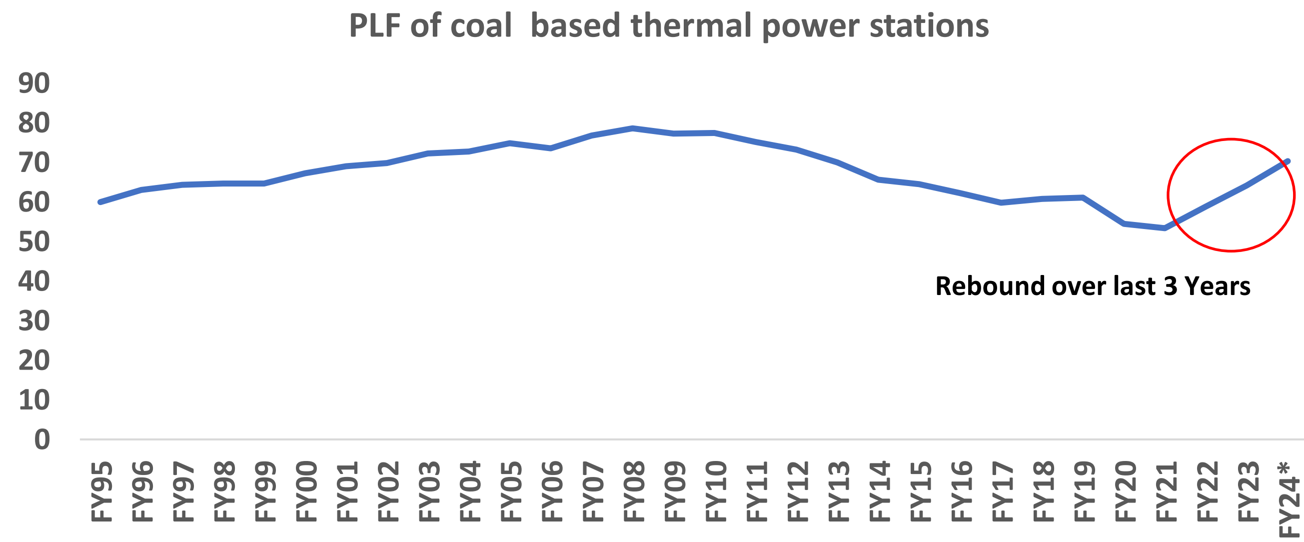
4. **Proportion of coal based power generation will likely slip only marginally at best in India's power mix over next 7-8 years**.



Source : CEA

Renewable power plants' PLF (plant load factor, capacity utilization for power plants) is much lower than that for thermal power plants (between 25 to 35% versus upto 90% for thermal power plants). As a result. power generation from a renewable power plant with the same capacity as that of a thermal power plant is typically less than 35-40% of that generated from the latter.

Another notable factor is that owing to various issues India's thermal power plants had witnessed sharp erosion in PLF over 6-7 years through FY20. Now with most of these issues pertaining to India's power sector having been addressed the PLF has been on a rebound over last three years. We expect PLF to improve further form here and thus expect growth in power generation from coal based plants to exceed the growth in capacity of coal based power plants over next 5-6 years.



**Till Dec'23*
Source: Ministry of Coal

Opportunities in the sector

Overall, we are quite constructive on the power and related sectors from a 3-5 year perspective even as we also appreciate that many pockets here have become expensive after the recent run up.

Some important sub sectors here are –

- Power generators (thermal, or a combination of thermal and renewables with relatively small but faster growing renewables business, or renewable energy based)
- Coal miners
- Construction and engineering companies required for maintenance, civil work, or for MDO (mine development and operations)
- Suppliers for solar modules, or for glasses
- Storage solutions (battery as well as pumped)
- New frontiers like green hydrogen
- Transmission companies
- Specialized lending institutions for the power and related sector

In fact on the renewal power side there are less number of direct plays. On the whole many of the stocks in this sector, especially in the ancillary sub-sectors, are not leaving much upside from here. However we do like some power sector lenders given their accelerating growth, healthy and improving asset quality, and attractive valuations. Then, there are some companies that have exposure to both, traditional source of power as well as renewable sources of power. Some of these companies are available at less than fair valuation perhaps due to their coal baggage and due to sluggish growth so far. We see some of these companies as attractive since they are set to steepen their growth trajectory in 1-2 years from now, with concomitant improvement in return ratios.

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Investment Approach Launch	August 2021
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Minimum Investment	Rs. 50,00,000/-

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