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Not yet Ready to Exit from Coal Plants

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(The editorial is based on the article “Not yet ready to exit from coal plants” which appeared in BusinessLine for 27th February 2019. In this article, we will discuss India’s growing dependency on coal in spite of push for renewable energy.)

In the last five years, there has been a slow but growing international consensus around the withdrawal of financial capital from the coal industry. Cleaner alternatives are being encouraged in its place, given the global imperative of climate change mitigation, and the local benefits of improved public health.

Large sovereign wealth funds, as well as multinational aid agencies like the World Bank, have undertaken this exercise by announcing their exit from coal financing. While coal-based generators in the West were already on the back-foot because of rising regulatory costs, most of the coal expansion has come from Asia, particularly India and China.

With India embarks on an ambitious journey to achieve renewable energy capacity of 175 gigawatts(GW) by 2022, questions have been raised on the relevance of coal in the present context.

Dependence on Coal

- With all this hype about renewables, **today, 81% of power generation is dependent on coal.**
- According to analysts, **renewable energy sources and coal will coexist**, as the availability of coal is abundant in India and it can provide affordable power to propel India’s growth and light every household.
- In India, **coal has always been thought of as the raw material for power.** Because the demand from the power sector was much more than the availability of coal in the last 10 years, no serious thought has gone into any other use for coal.

Increasing Dependency

Reasons

- **Coal-based power generation is not a singular industry;** it is a network of upstream miners, machinery manufacturers, transporters, engineering consultants, plant operators, and consuming utilities.
- **These industries not only collectively employ many people,** but are also part of an ecosystem which has been running smoothly for decades.
- **Coal plants have much higher intermittent O&M costs, and as regulations, particularly around fly-ash disposal, stack emissions, and effluent waste-water treatment, have become stricter over the last few decades, O&M costs have increased.**

Coal-use Patterns and Issues

- **Many Asian countries are continuing to expand their thermal coal-based power generation fleet,** despite the falling costs of renewables. India is no exception.
- **Coal plants in India, have traditionally not attempted to reduce costs in the areas of regulations** which have not been effectively monitored or implemented by the State Pollution Control Boards (PCBs).
 - In the face of a competitive, regulated power market, and increasing financial pressures due to an increasingly hostile investment environment, Indian generators have few incentives to comply with regulations.
 - With the **Ministry of Power extending the timelines to comply with emission standards for thermal plants,** we can see how little momentum there is in the system for regulatory compliance.
- **India's power regulators have failed to regularly update prices** to accommodate these increases in operational costs due to regulation.
 - These costs must be taken into account well in advance if power regulators want to give generators the right signals to invest in CO2 scrubbers, flue-gas desulfurization technology (FGD), fly-ash management, and more.
 - Expansion in power generation in India has largely been financed by the state; almost all coal power plants in India are constructed through massive debt financing from state-owned banks, regardless of whether the promoter is a state-owned enterprise or private company.
- International investment in coal generation assets in India has also not been much, so coal divestment from India does not witness a massive withdrawal of capital from the sector itself.
- Contemporary reasons for the financial crunch faced by the coal generators:
 - cancellation of coal blocks by the Supreme Court,
 - the bankruptcy of discoms,
 - logistical problems leading to coal stock shortages,
 - and a myopic coal import ban.

- As a number of power generators have been classified as non-performing or have gone into bankruptcy, the industry calls for better and long term investment which cannot be provided by the state-owned banks in the country at the moment.

Creative Financing

- **Creative, targeted financing proposals should be brought in to India** to address the power sector's burgeoning problems and increase the capacity of renewable energy generation.
- **Manufacturers of plant machinery should approach large generators** to negotiate the application of integrated control systems to old plants for the efficiency gains.
- Multinational infrastructure investment banks should align with Indian engineering consultants to float proposals to finance CO2 scrubbers and other kinds of stack emissions management in power plants.

Also, the alignment should stress upon the public sharing of the information on the stack emissions from these plants.

Way Forward

- **Clean coal as an idea has huge potential in India because of the age and inefficiency of some of our plants.**
- Given the short to medium term inevitability of coal-dependence, the potential gains to implementing clean coal are massive. This would include steps like more careful material management, managing coal dust, and stack emissions, and ensuring that plant effluents do not mix with local water supplies.
 - **A good example is how the city of Stockholm was partially powered by an urban power plant, Vasteras, which supplemented hydropower and provided standby and peaking capacity when required.**
 - This plant not only had negligible effects on urban air pollution but, in fact, ran cleanly for more than half a century until being slowly phased out.
- Although the idea of withdrawing financial support from the coal industry is well-intentioned, the blunt instrument of divestment may actually exacerbate transition problems in coal-heavy countries.
- **The transition from traditional coal-based power generation to the renewables should be pivoted in a direction which achieves the goals which are universally accepted at this point** — reduced air pollution and climate change mitigation.