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Centralised competitive process can revitalise power sector



"The power sector can be revitalised by centralised competitive process. As part of this process, the government can consider setting up a centralised procurement frame on behalf of the state utilities. They could also procure on behalf of the state utilities based on common bidding guidelines," says Rajat Mathur, Chief Executive – Emerging Markets, L&T Infotech.

Major roadblocks

Though India promises 24/7 electricity for all by 2022, the power sector in India is facing many challenges in meeting the ever-increasing demand-supply gap. According to Rajat Mathur, Chief Executive – Emerging Markets, L&T Infotech, "The most important factor affecting Indian power sector is fuel shortages. Moreover, the thermal capacity addition in this sector is plagued by the growing fuel availability concerns faced by the industry. Gas-based capacity of more than 20,000 MW is idle due to non-availability of gas. Supply of coal by CIL is restricted to around 65 per cent of actual coal requirement by coal-based thermal plants. This is leading to increased dependency on imported coal with the cascading result of high power generation costs."

"Low PLF of generating assets, rural electrification and energy access, high cross-subsidies in tariffs, ageing or inadequate infrastructure are some other factors that are affecting the Indian power sector," he adds.

Weak financial health of discoms is another big area of concern. Years of populist tariff schemes, mounting AT&C losses and operational inefficiencies have adversely affected discoms. They are currently plagued with humongous outstanding debts, Mathur observes. "On the other hand, lack of proper consumer databases is the biggest obstacle for the discoms with respect to proper billing & collection of revenues, affordability for the customers, increasing customer expectation, frequent change in climatic condition and rising production cost of power."

Over the past 4-5 years, the lending rates have increased significantly from the time of project appraisal, resulting in project cost overrun and hence, higher end tariffs. "The micro level policies governing the fuel cost pass-through, mega power policy, competitive bidding guidelines are not in consonance with the macro framework like The Electricity Act 2003, and the National Electricity Policy," says Mathur.

Some of the other factors include low PLF of generating assets, high cross-subsidies in tariffs and ageing or inadequate infrastructure.

Impacts on business sector

Most of the projects in the power sector are fixed cost projects, and any delay in the disbursement of funds from central or state sectors, affects the schedule baseline of the project. The profit margin calculated by the bidders at the time of bidding process is directly proportional to the timely completion of the project and timely payment by the client. The bank guarantee and payment schedule gets affected if the project completion is delayed. Penalties are imposed on firms, which fail to deliver the project deliverables within the schedule baseline. These factors collectively reduce the Return On Investment (ROI) and profit margins for the implementing agency. This also increases the financial risk associated with the project which results in decrease in investment from the investors.

He adds, "The power utilities in India are still state-owned and although they are directed by the CERC guidelines and principles, the

regulations may vary from state to state. The private players are reluctant to invest in such volatile conditions, where market risks are subject to any change in regulation."

Revitalising power sector

According to Mathur, the challenges confronting the Indian power sector should be addressed, and the sector can be revitalised by coal pass-through for stranded projects, in which, power projects worth over Rs 36,000 crore and having total generation capacity of 7,230 MW, are stranded due to shortage of coal. "Efforts are required for supplying adequate coal to power projects. To cater the high cost of imported coal, the cost should be made a pass through on case-to-case basis by regulators to the extent of shortfall in the quantity indicated in the Letter of Agreement or Fuel Supply Agreement. For projects which have entered into Power Purchase Agreement (PPA), under competitive bidding guidelines, the policies should allow import of coal for the quantity equivalent to shortfall in domestic coal supply," he suggests.

Supply of fuel for power generation is very essential, in this case, the piles of coal at utility yards are running well below normal required level of around 30 days of stock (for plants located far away from coal mines), and several utilities are pressuring rail companies to allow more coal trains through. The problem is the traffic jam on railways across the country. Coal makes up the largest share of commodity-driven rail activity. To facilitate this problem, Mathur, said that L&T Infotech can provide a common algorithm or decision-making framework, which will optimise the transportation cost of coal from coal mines to the generation plant.

"The power sector can be revitalised by centralised competitive process. As part of this process, the government can consider setting up a centralised procurement frame on behalf of the state utilities, which could procure on behalf of the state utilities based on common bidding guidelines. Addressing financing issues and debt restructuring package for power distribution companies are also some of the other areas that can also be taken into consideration," Mathur observes.

New tariff policy is highlighting the importance of daily operational efficiency of the plants. Plant managers should leverage on the advanced automation and analytics and IoT (Internet of Things) (M2M Communication) capabilities of IT to reduce their operational expenses and further improve the bottom line of operations.

Ensure sustainability

It is very essential to have the long term measures like change in cross-subsidy surcharge policy. Due to power deficit, some states like Maharashtra, Andhra Pradesh and Tamil Nadu eliminated Cross Subsidy Surcharge (CSS) and encouraged open access. But cross-subsidy charges being high, open access usage for electricity is often discouraged. Mathur suggests that some long

term measures along with longer term stability of cross-subsidy surcharge policy are needed so that investors can take investment decisions.

Apart from changes in cross-subsidy surcharge policy, acceleration in the coal allocation policy should also be given top priority, Mathur says, adding that the governments ought to have well-planned and a proper roadmap towards ensuring sustainability. "Coal Ministry should create a roadmap for regularising the non-controversial coal blocks that are faced with the risk of summary de-allocation on the back of the Public Interest Litigation (PIL) filed in the Supreme Court," he adds.

The government can determine the reserve price for these blocks based on the methodology adopted for upcoming allocations as well as apply normative project financial benchmarks based on approved mine plans and accordingly charge a suitable allocation fee from the allottee. "The schedule of payment should be designed in a way that it does not adversely impact the output power prices," he adds.

In today's scenario, strengthening the regulatory institution is the most important change. The power regulators are supposed to be independent and autonomous. Yet in many states that does not appear to be the case, Mathur points out. He says, "Some of the key issues are process of appointments, competence of regulatory staff and regulators, lack of an accountability framework and indirect interference from the state government."

Non availability of skilled resource to cater to the government capacity addition plans and pressure on Generators to reduce Man/MW ratio are two traditional issues haunting power sector. Management of power utilities should embrace the digitization move to build a pool of online /automated knowledge resources, so that human dependency is reduced for training and nurturing the young generation entering this industry.

Counter strategies

Information Technology (IT) can play a crucial role in power sector. Improved plant operational efficiency using IoT or seamless IT/OT integration, proper energy accounting and identification of theft/ pilferage to improve the bottom-line of Distribution utilities are some of the key benefits of leveraging IT. Power of advanced analytics in combination with IoT will help utilities in optimising their Capex-Opex investment plans, and improve customer satisfaction.

L&T Infotech offers various solutions to address the above mentioned pain areas for generation and distribution utilities. Mathur suggests investments in IT blueprint. He says his company's focus mainly will be on Enterprise Resource Planning, CRM, E-Procurement solutions, System Integration, IT Infrastructure, Enterprise Reporting, Predictive and Advance Analytics, Big Data, IoT, mobility based solutions as needed by Indian utilities to become a next generation digital enterprise and meet the 2020 target. ⚡