

IN CONVERSATION

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Challenging power scenario

Tata Power is India's largest integrated power company with a growing international presence. The company, together with its subsidiaries and jointly controlled entities, has an installed gross generation capacity of 9,183 mw and a presence in all the segments of the power sector including fuel security and logistics, generation (thermal, hydro, solar and wind), transmission, distribution and trading. Its international presence includes strategic investments in Indonesia, Singapore South Africa and Zambia, Georgia and Norway, Australia and the neighbouring Bhutan. **Anil Sardana**, chief executive officer & managing director, Tata Power opens up to FC on the industry and the company's plans:

■ As an established private sector player in power generation, with a generating capacity in excess of 9,000mw through a mix of thermal, hydro and renewable energy, can you elaborate on what ails the Indian power generation industry and why we always struggle to meet the growing power needs of the country?

The power needs of the country are being met adequately as per statistics available from various government authorities. However, the country's per capita consumption still hovers around 1000kwh/per person/per year. This is 1/3rd of the global average.

As of 2015-16, India declared a peak power shortage of only 4,208 mw. Eyeing a target of power supply of 335 gw, India will require a generation capacity of approximately 440 gw. This implies that we need to have an annual addition of 20-40 gw. This is a challenge.

The domestic coal shortages were addressed during the year. However, there are several generating stations that have to either import or buy under e-auction to meet their requirements as they are not being allocated coal. This resulted in increasing non-utilisation of assets that are already built and would distract new capacity additions.

Another major challenge in the sector is the shortage of natural gas in India. This shortage has stranded gas-based power projects with a combined capacity of around 18,903.5mw, accounting for 9.13 per cent

of total generation capacity. There is a need to evolve a robust energy security policy for the country so that guidance can be given to all state regulatory commissions to plan bulk supply procurement in line with basket of fuels that meet India's energy security needs.

Besides fuel, the slow pace of distribution reform is another key concern. Power distribution still remains a segment that needs immediate policy reforms. The distribution segment caters to 200 million consumers with a connected load of 400 gw, comprising one of the largest customer bases in the world. However, high financial losses of discoms are hampering not just the electricity distribution but also becoming a question mark for generation capacity addition in India. Also, creation of regulatory assets in the books of a distribution company is another serious development and has dried up ability of discoms to source incremental bulk power. The central government has, however, invested tremendous efforts through UDAY scheme, with which it is hoped that state electricity boards should be able to tide over the crisis of discom in the next few years.

Another key impediment to growth of the power sector is the commitment of states to supporting the developers in obtaining clearances, land acquisition free of encumbrances, etc. Without state's engagement, developers would find it difficult to bring to fruition their in-



vestments on ground.

■ The company has managed to establish one of the few super critical thermal stations in Gujarat. What were the learnings from it?

Tata Power used in-house ordering and coordination to establish the Rs. 20,000 crore super critical project with 5 units of 800mw each. Moreover, it moved with a collaborative approach of inducting and training staff to operate the station in sync with the commissioning of units. The design efficiency of the Mundra power plant is about 41 per cent. The

steam generators are supplied by Korea's Doosan, while the turbine and generators package are supplied by Japan's Toshiba. Synchronous types of turbines and generators are designed to operate on supercritical steam parameters to produce 830m³v at 26 kv at 50 hz. Super critical technology, use of clean, low-ash imported coal and choice of unit sizes help the project achieve higher efficiency, save fuel and emit less greenhouse gases than would be produced by regular coal-fired power stations of the same capacity. The

reason behind the fast commissioning of the plant located in the Kutch region of Gujarat was the overall project management and coordination done by Coastal Gujarat Power (CGPL) itself.

■ There has been a flip-flop in the case of your Orissa project, when it comes to project site, the technology and even the fuel. Can you throw some light on the issues and what will finally emerge in that state from your stable?

Naraj Marthapur was originally envisaged as end-use plant for Mandakini coal block. Accordingly, 871 acres of land were acquired and the possession of the same was taken. The government granted environment clearance subject to water allocation for the coal-based project from the Mahanadi river. Accordingly, the water allocation was also obtained from Mahanadi river. Clearance from the national board of wildlife, which did not meet for long years, was awaited. Meanwhile, the Supreme Court cancelled coal blocks and thus there is no need for the land and project to be established any more.

■ On the renewable energy front, Tata Power's initiative seems to be only to meet the minimum criteria of the generation basket so far. Can you elaborate on the future plans on this front, where the company has indicated that it may look at both organic and inorganic routes for expanding capacity?

Tata Power together with its subsidiaries and jointly controlled entities has an installed gross generation capacity of 9,183 mw, of which clean energy portfolio is 1,674 mw, making it one of the largest non-fossil based energy players in India. The company itself and through its 100 per cent subsidiary, Tata Power Renewable Energy (TPREL) has upward of 500 mw of operating wind assets. TPREL also has further 500 mw of wind capacity under development and construction in Gujarat, Andhra Pradesh, Madhya Pradesh and Karnataka.

Further reiterating its commitment to clean energy, Tata Power recently increased the share of renewable energy output to 30-40 per cent by 2025, up from its earlier target of 20-25 per cent. This move is in line with the government's commitment made in Paris. Though solar is a very small part in our total portfolio, it will increase significantly over the period as the government is expected to bid out large scale projects to meet its target. For wind, on the other hand, we will continue to look at opportunities as and when they come. We are exploring multiple options, both greenfield and acquisitions, to be able to capture the market for both solar, wind and hydro based generation. We are in the process of acquiring suitable land parcels in the states of Maharashtra, Rajasthan, Gujarat, Andhra Pradesh and Karnataka to develop solar and wind projects.