

"There is huge interest in smart grid technologies in India"

Interview with Praveer Sinha

Tata Power Delhi Distribution Limited (TPDDL) has been a frontrunner in the implementation of various smart grid technologies and is amongst the very few utilities in India with significantly low aggregate technical and commercial (AT&C) losses, even below the 10 per cent mark. On the sidelines of the India Smart Grid Week 2018, which was held in New Delhi in March this year, Praveer Sinha, chief executive officer and managing director, TPDDL, spoke to *Power Line* on the outlook for power distribution in India, the uptake of smart grid technologies and TPDDL's plans going forward. Excerpts from the interview...

How would you assess the performance of the power distribution segment?

The country's power sector has been going through a huge transformation. The government has undertaken various programmes such as the Integrated Power Development Scheme and the Deendayal Upadhyaya Gram Jyoti Yojana, and changes are already visible. In addition, work has started in rural areas in a bid to connect all villages and households to the grid. This will hopefully be completed in the next one or two years.

What is your perspective on India's smart grid journey so far? What are the issues and concerns that need to be addressed?

Looking at the India Smart Grid Roadmap, there has been a lot of movement on this over the past four years. From just implementing pilot projects in 14 cities, we are now undertaking large-scale smart metering projects, which include communication systems, data analytics and data management systems. Such systems, however, need to be integrated with the existing SCADA systems. Another aspect that the state governments and public discoms should focus on priority is distribution automation. There is a huge amount of interest and opportunity in the implementation of smart grid technologies and solutions in India.

The key challenge being faced currently is that many smart grid technologies are graduating from electrical technology to information technology to communication technology. They need to be integrated and work in tandem in real time for smooth energy supply. While discom officials have domain knowledge in electrical technology, they lack the required exper-

tise in information and communication technologies. Similarly, technology providers lack knowledge about electrical systems. This confluence is taking time, but these are also the learning pangs that any new technology goes through. However, we are likely to witness some positive results in the coming years.

How does TPDDL expect the e-mobility segment to evolve over the next few years in India? What are the company's plans for the segment?

E-mobility is the most challenging of the new technologies that are being implemented. It not only involves an additional supply of electricity, but also poses the bigger challenge of ensuring grid stability. We do not have much experience with regard to e-mobility. However, once we are ready with all the smart grid tools and technologies, we will be able to implement more of electric vehicle (EV) technology. Large-scale e-mobility will definitely take time. However, steps such as identifying the necessary norms and charging infrastructure requirements, and understanding and determining the electricity tariffs for EVs and other related services are being taken.

What are TPDDL's key priorities for the next two years?

Smart grid development, penetration of rooftop solar, energy storage solutions and grid stability continue to be the key priorities for TPDDL. We need to focus



on better load forecasting, integration of EVs with the grid and supply of reliable power to all consumers. We are working towards addressing these challenges and expect to deploy more technological solutions in the coming years.

What is your outlook for the power sector over the next

few years and how do you see TPDDL's role in it?

India is one of the biggest markets for the energy sector, with a large number of consumers still not having access to power. There is a need to improve the quality of power supplied to consumers and use the technological solutions available worldwide in the Indian context. Therefore, there is a huge potential market available in the country. However, the challenge is to deploy technological solutions that cater specifically to Indian requirements. Besides, I believe that in the rural areas, microgrids, whether off-grid or on-grid, can play a key role in meeting electricity requirements.

TPDDL has had exposure to various technological solutions and will continue to work in collaboration with utilities in India. At ISGW 2018, TPDDL has signed its fourth agreement with USTDA and with this, it expects to improve its access to technologies that focus on the use of distributed energy resources in network management. ■

(Note: Praveer Sinha has since been appointed chief executive officer and managing director, Tata Power.)