

## Overview

### IT basics in place in most state utilities

As power utilities continue to recognise the value of information technology (IT), they are adopting it fast. While private and central utilities were the first to embrace it, those at the state level, whether integrated or otherwise, are working hard to catch up. IT is being used across the spectrum – the traditional sub-segments of generation, transmission and distribution as well as in the newer areas of power trading.

Its use is bringing all-round benefits, leading to operational efficiency and managerial effectiveness. It is increasing revenues, reducing losses, speeding up decision-making and increasing productivity. IT is also helping utilities to prepare for change and competition imminent in the new policy regime. Aside from this, the regulations require utilities to maintain up-to-date information and s, where the technology can be put to good use.

For the generating companies, IT is helping to improve the O&M systems in plants, generation planning, and material and fuel management.

By using automated control systems, plants are able to optimise their resources for greater efficiency. For a company with multiple generating stations, better coordination amongst these locations for optimal production can be achieved through IT.

For transmission companies, the technology is used in network planning and construction. It can effectively manage energy accounting, loss assessment, and transmission charges and bring in efficiency improvements. For management of inter-ABT and intra-ABT systems also, IT is essential. SCADA helps in load despatch functioning and monitoring by capturing critical data from substations.

IT empowers distribution companies to improve the increasingly important “customer service” function. Its inevitability in billing, metering, new connections through call centres, and website has been well proven. It is also helping in operations and management of all equipment, including feeders, transformers and meters.

Some common technology tools being used in the power sector are SCADA, GIS, ERP software, WAN/LAN, call centres, computerisation, MIS, automated meter reading, cash and revenue management systems, plant management systems, billing and payroll management systems. Most of these solutions can be tailor-made for specific objectives of the utilities. While GIS mapping, SCADA and ERP packages are more sophisticated, specialised tools involving heavy budgets and resources, computerisation and network are more basic and relatively less expensive.

There is still a long way to go for Indian power utilities. Though they are now paying more attention to IT and setting aside more in their budgets for technology, the situation is still far from being at par with global standards.

The approach to IT is still not fully integrated – there is need for strategic methods and systemic development. IT is being used for limited operations. A uniform, cohesive and fully integrated backbone encompassing all functions of company is yet to be developed.

More important perhaps is the question of attitude. Employees, caught in traditional mindsets, are still not fully prepared to abandon the old ways of working to adopt modern IT practices. Consequently, budgets set aside for IT are usually inadequate; strategy is not fully visualised; and projects face long delays in implementation.

Lack of organisational capacity to implement IT solutions is a big deterrent. Sustaining its progress is also a serious matter – utilities need to keep abreast with the changing technologies and this requires training and a committed approach.

In the following write-ups, we take a look at IT initiatives taken by 20 state utilities. There is wide variation and diversity in their IT strategies. Some states where reforms took place earlier, such as Andhra Pradesh, have highly evolved IT strategy. However, mere introduction of reforms does not ensure a better IT standard. Orissa and Haryana are way behind while the West Bengal State Electricity Board which is still integrated and recently formed Maharashtra utilities have not done too badly.

However, the basic foundations have been laid at most utilities – they have set up IT teams, formulated budgets, completed computerisation and networking, and constructed websites. Most discoms have efficient functional call centres. In general, while the state discoms and gencos are making headway, transmission companies still have a lot of ground to cover.

In future, the challenge for the utilities will be to identify some of the best practices and suitable technologies and work towards an integrated IT plan.

## **Reference Book**

Power Line  
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