

Indian Chamber of Commerce



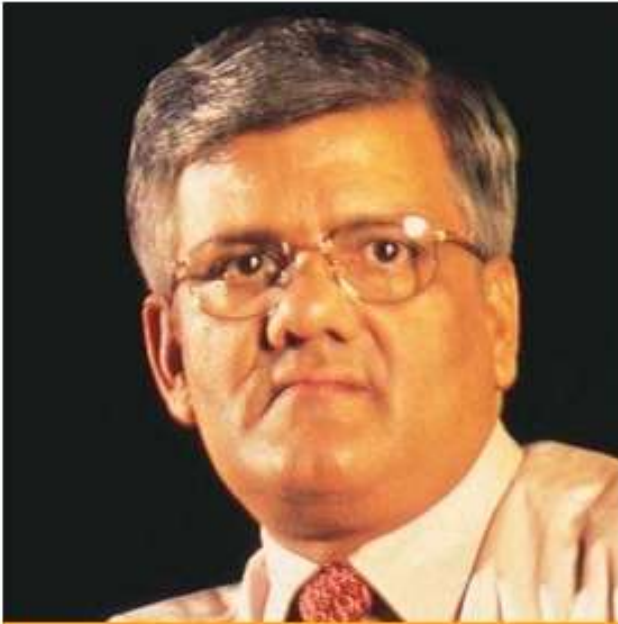
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resurgent dreams

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Tantra Narayan Thakur is the CMD of PTC India Limited since October 2000. PTC was set up as a Government of India initiated Public Private Partnership with the objective of developing the unique business concept of power trading in India and setting up the power market for the region to encourage investments into the Indian power sector specially from the private sector. Having successfully introduced trading and established the power market in India, PTC has transformed into a solutions provider for the stakeholders in the Indian power sector.

Mr Thakur provided sustained leadership to PTC's operations, and devised optimal capital structure and organisational processes. He introduced several market making initiatives, including the differential pricing for power transactions, in effect differentiating a commodity-like product.

His managerial and financial skills were also amply demonstrated in his past assignment (since June 1995) as Director (Finance & Financial Operations), Power Finance Corporation Ltd. (PFC), New Delhi when he was the chief financial officer at the board level responsible for managing the entire financial systems and operations of the company.

Power I

Key to sustained growth of

India is yet to have an infrastructure that is world class or even comparable to some Asia Pacific countries. Although there has been notable progress in key infrastructure sectors like telecom, roads, ports/airports etc, power infrastructure remains a weak link but has a major bearing on sustained growth of economy.

The power sector has continued to face an energy and peak demand deficit for the last few decades. While the Indian economy has grown rapidly, the power sector has not kept pace with economic growth. The not-so-proportional relation between the economy and energy sector growth is due to the fact that India is predominantly a services industry (>60%), which is less energy intensive. But the situation will become critical in years when India develops as a major manufacturing hub.

Let's look at some gaps in power infrastructure:

Generation

In generation India is the third largest in Asia with an installed capacity of 148GW (as on 31st March 2009) with thermal, hydro, RES and nuclear contributing to 63%, 25%, 9% and 3% respectively. The government's emphasis on hydro and other renewable energy sources has resulted positively.

Based on the resource potential, the 11th plan addition target is 78,700MW consisting of 59,693MW thermal, 15,627MW hydro and 3,380MW nuclear, including the shortfall from the 10th plan. In addition, from non-conventional energy sources, capacity addition of 13,500MW is also expected.

However the trend of the first two years of the



Infrastructure

Indian Economy

11th plan is not very promising, expecting a shortfall of 20,000MW in the capacity addition during the 11th plan.

Generation has to be collectively met by both public and private utilities, captives and non-conventional energy sources. It is expected that the total generation from utilities by 2011-12 will be between 1008 and 1038 BUs, keeping in view "Power for all by 2012" and per capita consumption of 1000 units. Further the capacity addition required in the 12th plan (2012-17) is expected to be more than 8,00,00MW considering GDP growth of 9% and GDP electricity elasticity of 0.8 (as per NEP).

Public private partnership may help in meeting the requirements of the sector. GoI's Ultra Mega Power Policy (UMPP) has helped in finalizing 3-4 power projects such as Mudra, Krishnapatnam, Sasan and Tilaiya. MoP has associated with CEA and PFC for development of coal based UMPPs of about 4,000MW each under tariff based competitive bidding through shell companies. However this alone will not be able to support the huge capacity requirements.

Fuel

Availability of fuel is another major challenge adversely affecting power generation, particularly applicable to gas based plants.

Indian coal has high 30-40% ash content. The coal mining is also not growing at a sufficient pace nor are the reserves enough to meet the growing demand. Recent times have show greater emphasis on imported coal (from Australia, Indonesia, Africa), though it's still a challenge.

Considering the current trend of specific coal



consumption, the coal requirement (by power utilities) will be about 483MT (2011-12) which is 74% of the total requirement. The demand supply gap of about 51MT (in 2011-12) would require import of coal. Some reports say that the imports will reach up to 100MT in 2012 to meet the demand.

Gas availability is also a concern. At present, availability of gas is less than 40mcmd, while the requirement at 90% PLF is about 90mcmd.

India's current nuclear installed capacity is 4,120MWE. The nuclear power projects as envisaged by DAE are 10,280MWE by 2012 which seems an ambitious target. India's civil nuclear co-operation agreement with USA has promising prospects. Agreements with France, Russia, and Kazakhstan are in the process for nuclear expertise.

Transmission

At present the existing transmission capacity does not have the ability to support fully the power trading across regions. Redundancy in the



transmission capacity should be at least 30-40% to encourage the power market. (LT70%/ST 30%). NEP encourages creating adequate margins in transmission per international standards. MoP needs to support funding of interregional capacity as an infrastructure including transmission interconnections with neighbouring countries.

Total inter regional transmission capacity would be 37,150MW (2011-12). There are also plans for interconnection with neighbouring countries and India.

The major challenges in this area are right of way and forest clearance (if any). Rapid urbanization, environmental issues are other hurdles in development of large interconnection transmission. GoI is also planning to have strong interconnection with Nepal and Bhutan, who have high potential for hydro projects. But the progress here has been slow due to geopolitical issues.

Distribution

India's distribution infrastructure also demands huge investments. The levels of losses both technical and commercial are very high (25%) compared to developed countries (about 10%).

GoI supports distribution through accelerated power development and reform programmes (APDRP). Concessional funding in the last years has shown results. There has been unbundling of state utilities and private players have come into distribution in Delhi and Orissa.

Distribution sector needs to open up more to private players, invite investments from public and private, improve the present infrastructure, reduce all kinds of losses, provide improved customer service, automate energy audit and introduce IT with full force.

Power Market

The development of the power market is taking place slowly but steadily in India. It is at a nascent stage where currently 3% of the total electricity generated is traded. EA 2003 recognised trading as a separate licensed activity and regulatory commissions have been mandated to promote the development of the power market. To pro-

mote trading, NEP encourages a part of generation (~15%) to be sold outside Long Term PPAs. It is anticipated that as the market develops, it would be feasible to finance projects through competitive bidding outside the PPA framework. The power market has resulted in optimal utilisation of resources and efficient gains with the hope that over time competitive pressures will result in affordable pricing and quality of services. It is now increasingly recognised that promotion of power trading in India will reduce the imbalance both in surplus and deficit areas.

The Indian power market is completely voluntary with a number of options to buyers and sellers. This is because the buyer is free to choose from long term PPA based mechanisms, medium term/short term bilateral trades, day ahead market (through the power exchange), real time mechanisms (UI) etc.

One significant development is the creation of the National Power Exchange which has been operative for more than a year, providing a transparent platform and assisting in bringing required depth/structure to the market.

It would not be out of place to mention here that the current high valuations of power sector companies owe a great deal to the development of the power market where PTC India Ltd has played a pioneering role. The nascent power market has to be given an encouraging push to encourage investment in this sector from private players from India and abroad.

Though private investments are expected to have a positive trend, the sector is not able to attract massive investments due to unique sector-related issues, inefficiencies and regulatory uncertainties.

Demand for rapid growth of infrastructure requires huge amounts of construction materials (steel, cement) which are energy intensive industries. If proper thrust is given by introducing policy reforms, appropriate tax/fiscal benefits, efficient capacity building and the EA2003 is implemented in letter and spirit, there could be a possibility of giving the power sector a higher growth trajectory and some of the examples like telecom industry could be replicated here.

