

**INDIAN POWER SECTOR: CHALLENGE AND RESPONSE, R V Shahi, Excel Books, New Delhi, 2005, pp. i – xii + 415, Price: Rs.450.**

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The power sector poses a serious challenge to infrastructure development in India. A recent forecast made by the Planning Commission indicates that India requires an investment of US\$ 300 billion for the development of power sector. In terms of per capita power consumption, India is well below China, the US, Russia, France, Germany, Japan and several other countries of the world. The inadequate generation of power and its supply has crippled industry, agriculture, trade, commercial, and domestic sector consumers. The exorbitantly high transmission and distribution losses have made power an expensive input and constrained India's global competitiveness. Globalization, macro and micro economic reforms and outmoded framework governing functioning of power sector in India ushered in its privatization.

The vertically integrated power industry in public sector has been disintegrated into generation, transmission, distribution and regulatory sectors. The power sector has been opened up to the foreign players. The 1885 Electricity Act was first replaced in 1990 to permit the presence of private sector. The 2003 Electricity Act presents a new paradigm allowing the presence of multiple buyers and suppliers. The trading of power has been facilitated by setting up appropriate institutions and steps are under way to promote power markets in India. However, the privatization of power has not been a smooth exercise. The issues concerning the linkage of fuel, debt-equity mix, land acquisition, pricing, law and order, access to capital markets in India and abroad, allocation of risks, labour market and fiscal incentives have obstructed privatization of power. Regulation has posed serious challenges due to amount of regulators and suboptimal internal functioning of regulatory institutions in the absence of qualified staff and training. Subsidization has emerged as a major impediment resulting in unreasonable tariffs for industrial, commercial and domestic consumers.

It is necessary to search for answers for some questions: Have power sector reforms and privatization improved customer satisfaction? Have power sector reforms and privatization improved profitability and productivity of power utilities in India? Have they enhanced competition? Whether power sector reforms and privatization led to increased quantum of investments and technology up-gradation, and brought about changes in internal dynamics of organization? The book under review provides an assessment of efficacy of power sector reforms and privatization in India through quantitative and qualitative analysis of the functioning of power sector in India and case studies on power sector reforms in the various states of the Indian union.

The book provides an exhaustive overview of the Indian power sector in terms of its constitution, legal backdrop, financial losses incurred, demand–supply mismatch, international competitiveness and the forces that triggered privatization initiatives covering generation, transmission, distribution and regulation. The problems faced by the power sector have been discussed at length by the author. While discussing various models for reforms, the author points out that India unbundled the vertically and horizontally integrated electricity industry and allowed independent power producers from India and abroad to set up power plants and also participate in the distribution of power. The author brings out the need for power sector reforms and privatization as dictated by the colossal losses incurred by the state power utilities (known as erstwhile state electricity boards), mismatch in tariffs, cross subsidization by industry to domestic consumers and farmers, and chequered growth of power sector. The author traces the changes concerning the legal backdrop of power sector reforms by looking into Electricity Supply

Act, 1910 and Electricity Supply Act, 1948. The author furnishes details of the amendments carried out in the act in 1975, 1986, 1989, 1990 and 1991. The author then takes up the Electricity Supply Act, 1998 permitting foreign domestic investment in power sector followed by the Electricity Supply Act 2003 leading to open access through multiple suppliers and multiple producers and the forces of supply and demand being managed by the regulator i.e., central electricity regulator authority and the state regulatory authorities.

The present book adds a new dimension to the debate on power sector reforms and privatization by attempting case studies dealing with turnaround of failed power utilities and success stories of power sector reforms and privatization in relation to some major states in India viz., Andhra Pradesh and Rajasthan. The turnaround cases show as to how reforms and privatization improved the plant load factor and reduced the transmission and distribution losses impacting the profitability to such an extent that not only the accumulated losses could be wiped out but profits and surpluses could appear in the financial statements. The stories of Andhra Pradesh and Rajasthan disclose dramatic fall in theft of electricity, reduction in technical losses, improvement in quality of power, steep decline in cross subsidies and losses.

However, the book does not bring out the failures of reform and privatization of power sector in India. It eschews discussion on the failure of Dabhol Power Plant set up by Enron, USA. The Dabhol Power Plant was a mega power project. Enron demanded a very high price per unit of power generated which was around 9–10 cents, higher than international standards by at least 200 per cent. The conditions imposed by Enron were highly demanding in that it obtained guarantee for the payment against the capacity installed whether the power generation was required or not and escrow for payment by the Maharashtra State Electricity Board. As the cost of power turned out to be higher than the alternative sources of obtaining power, the Maharashtra State Electricity Board refused to buy power from Enron and the plant had to face shut down. The Government of India has been facing the consequences of the shutdown and has to provide for the penalties mentioned in the contract.

The Hinduja Power Plant was set up in Andhra Pradesh as a mega power project. The plant was promised as an adequate supply of naphtha, which did not happen. As a result, the plant never took off. The Orissa power sector reforms and privatization advocated as the best case turned out to be an utter failure. The transmission losses and distribution losses are hovering around 40 per cent and the losses are mounting. It is interesting to note that power sector reforms and privatization have not added much to power generation as the private sector continues to contribute less than 10 per cent to the total installed capacity. The investments from domestic and foreign private sectors have not been very encouraging. The price per unit of power has recorded a steep increase. The pricing methods have not undergone consumer friendly changes. The technology has not registered appreciable developments.

However, the present book has been successful in initiating an interesting debate on power sector in India which would be of considerable interest to the countries in Asia and the Pacific. The developed countries would also stand to gain from the debate by reflecting on the various models they have chosen to assist the developing countries in the growth of their power sector. On micro front, the book has successfully flagged issues of vital import to power sector ranging from debt-equity mix, escrow, and risk management to repatriation of dividends, technological up-gradation, reduction of technical losses and thefts.

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