

## Why power doesn't play

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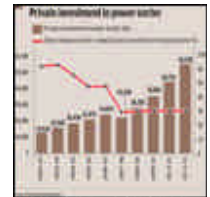
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It is well accepted in Indian and international policy circles that bottlenecks in infrastructure in most sub-sectors—electric power, roads, ports, airports and sanitation—with the possible exception of telecommunications are acting as a serious impediment to rapid and sustained economic growth in India. The World Bank and the Indian Planning Commission have independently estimated that economic growth in India is on an average between 1 and 3 percentage points lower than what it could have been if infrastructure bottlenecks were not as severe as they currently are. There are more constraints, particularly in the power sector, which are acting as a major impediment to industrial and manufacturing growth in the country.

The power sector in India was completely under the control of the public sector that accounted for almost 70% of power generation and the entire transmission and distribution network until the early 1990's. It was only in 1991, when India initiated the economic reforms programme, that power generation and distribution were opened to both private players and foreign investors. In generation, the independent power producers (IPPs) were invited to set up power plants in several states. Only some IPPs could progress beyond the initial stage due to governmental guarantees and provision of an escrow facility.

Given the constraints to meet the growing demand for power in the country, the Electricity Act of 2003 gave an impetus to private participation by allowing non-discriminatory open access to captive generating power plants. The Act also provided, the generating companies as well as the distribution licensees, open access to the transmission lines and enabled a distribution licensee to take up generation and a generating company to take up distribution.

In order to promote rural electrification, the Act allowed freedom to generate and distribute electricity in rural areas by abolishing licences. The Act not only initiated measures that strengthened private sector participation in generation, transmission and distribution by removing barriers for its entry, but also promoted the use of renewable sources of energy in generation as well as rural electrification.



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As a result, private sector investment in the power sector picked up considerably during the Tenth Five-Year Plan (FYP), increasing from Rs 12,926 crore in the first year (2002-03) to Rs 23,825 crore by the last year (2006-07) of the Tenth FYP. A total of Rs 91,833 crore (31% of the total power outlay) was invested by the private sector in the power sector during the Tenth FYP. Moreover, a total of Rs 1,85,511 crore is expected to be spent by the private sector for the development of the power sector during the Eleventh FYP as can be seen from the accompanying graph.

Further, the first important step stimulating private participation in power generation, in recent years, has been the development of the ultra mega power projects (UMPPs). Under this policy, the government has identified several sites for projects with an individual capacity of 4,000 mw, involving an investment of over Rs 16,000 crore. The Power Finance Corporation (PFC) has been identified as the nodal agency to bid out the projects. It has so far successfully bid out the domestic coal-based Sasan project in Madhya Pradesh as well as the imported coal-based Mundhra project in Gujarat and the Krishna patnam project in Andhra Pradesh. So far, the PFC has identified 9 ultra mega power producers. Also, the regulations for availing tax and other benefits for the UMPPs have been simplified. Several of the planned UMPPs will be located along the coastline and are expected to use imported coal. These projects also enjoy an income tax holiday for a block of 10 years during the first 15 years of operation and a waiver of import duties on capital goods.

The second major development is the invitation to the private sector for developing large transmission lines. The power ministry plans to set up 14 mega transmission projects through private participation on the lines of UMPPs. The only transmission project on PPP basis, during the Eleventh FYP period, is the Western Region System Strengthening Scheme-II being developed by the Reliance Power Transmission Ltd apart from the Tala transmission line.

The third major initiative in private participation is the development of merchant power plants of 500-1,000 mw capacity that compete for customers and absorb the full market risk. These power plants produce power as a commodity and sell their entire output on the spot market.

The first merchant power plant was established by Tata Power in Jojobera. These plants are expected to add between 10,000 to 12,000 mw during the Eleventh FYP.

In the distribution segment, private participation has been tardy in spite of open access mandated by the Electricity Act of 2003. Private participation in power distribution has been through private distribution companies in cities like Delhi, Mumbai, Ahmedabad, Surat, Kolkata, Greater Noida along with Kanpur and Agra. Another mechanism of privatisation has been through the establishment of distribution franchisees in rural and urban areas. Distribution franchisees are responsible for the operation and maintenance of the network, metering, billing and arrear collection as well as planned capital investments for network upgrades. The Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) rural electrification scheme has made the establishment of rural franchisees mandatory in order to make

the management of power distribution more effective. This has resulted in the establishment of a public private partnership in electricity distribution in more than 1.02 lakh villages ,already, in rural areas.

There has been a steady growth of captive power plants under the private sector in the last few years. The Electricity Act has encouraged the growth of captive plants by freeing them from controls. The captive plants are expected to contribute towards a capacity addition of 12,000 mw by the end of the Eleventh FYP in 2012. The installed generating capacity of captive plants at the end of the Tenth plan in 2007 was 22,335 mw, which increased to 24,986 mw in the financial year 2008, a capacity addition of 2,651 mw.

The government has been encouraging private participation in the promotion of power generation from renewable/non-conventional sources of energy. This was done by reducing the capital costs of environment-friendly projects. As a result of this encouragement, the private sector has contributed 83% of the installed generating capacity in renewable sources of energy. The two sources of renewable energy in which private participation is immense are wind energy and small hydro power. In Tamil Nadu, which is the leading state in wind power generation in India, the private sector contributes almost 100% to the installed generating capacity through wind power. This is due to the conducive policies of the state government towards the private sector such as open access, wheeling and banking facilities for captive consumption, tax benefits such as permitting accelerated depreciation up to 80% and a tax holiday for 10 years.

There has been an increase in private participation in small hydro projects in the last 10 years. 23 states have announced policies for setting up commercial small hydro power projects through private sector participation. The facilities offered in these states include wheeling of power produced, banking, buyback of power as well as a facility for third party sale. The New Hydro Policy of 2008 emphasises greater private investment through IPPs and joint ventures in the hydro power projects. There is renewed enthusiasm among private developers in taking up sites for the development of hydro projects recognising the inherent advantages of inflation-free generation coupled with spiralling prices of fossil fuels. Several states have allocated sites to private developers on build-own-operate-transfer (BOOT) basis.

The main impediment to private participation in the power sector has largely been the absence of enabling regulatory, legislative and market environment. Further, there is a lack of recognition of the fact that the distribution segment would need to be made more efficient and bankable before private investment and competition emerges in generation. It is hoped that the new initiatives taken by the government in the power sector will set the ball rolling for increased private participation in the power sector, which is the need of the hour.

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