An Epochal Shift: Changing Perception of the Private Sector's Role in the Indian Power Sector

Gaurav Sharma

The Private Sector's contribution in the development of critical infrastructure from the era of the *British Raj* to modern day India is worthy of acknowledgement.

In terms of the power sector, the first steam power plant was set up by CESC (1 MW) in 1899 and the first independent power project was set up at Jegurupadu in Andhra Pradesh (1997) by GVK. GVK's combined cycle project at Jegurupadu was India's first privately financed, fast-track, independent power project to come on stream and was expected to serve as a standard for further IPP projects. From then till the recently commissioned thermal units of MB Power (Madhya Pradesh) and Thermal Power Tech (Andhra Pradesh), the private sector has made a rapid and significant impact on the entire gamut of the power sector

Private sector participation in the power sector can be looked at as having about a decade of experience before the Electricity Act of 2003 (1991–2002) and another decade since it was enacted (2003 to the present). Within this period, all segments of the sector have had private sector investments, however, the generation segment of the power sector value chain has witnessed the maximum interest from private players, which are primarily Indian companies. A few multinational players such as China Light and Power (CLP) and AES are in the Indian market, but their generation capacity is limited.

Presently, prospects for private generation investment in the Indian power sector since 2011 have looked less promising than they did during the economic boom of the 11th Five-Year Plan. This pinch is coming from both the generation and distribution segments; including the bottlenecks in the transmission segment.

Therefore, while we talk about an epochal shift in the idea of India, the changing perception of private sector's role in the development of India's infrastructure sector, especially the power sector cannot be ignored.

Private Sector's Role is Crucial in Strengthening the Economy

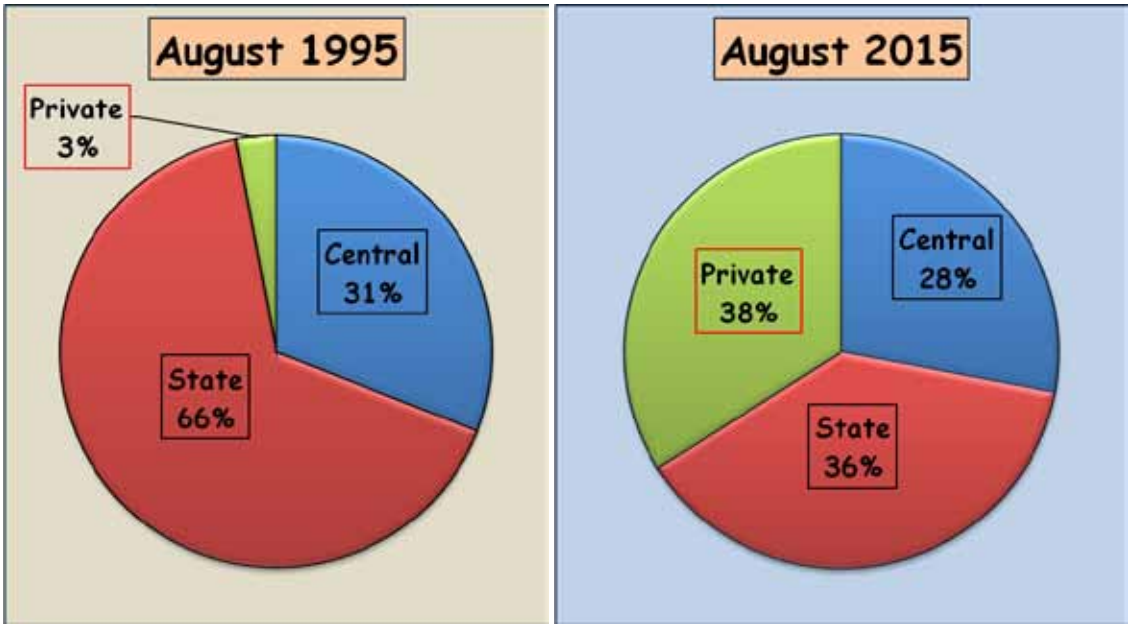
India's growth story has often been compared to that of China, which has tapped into domestic savings and foreign investment to build its vast infrastructure. In China, the electricity sector was initially very centralized, and regional grids corresponded to techno-economic boundaries. In India, much of electricity development has been tied to federal boundaries and a political calculus therefore making it harder for India to achieve infrastructural growth through private sector investment.

The private sector invested $225 billion[1]—or roughly 12 percent of GDP—in India's infrastructure between 2007 and 2012, much of it through PPPs, which have proliferated. Yet these projects have suffered myriad dysfunctions due to poor structure. Today, India needs $1 trillion[2] for its infrastructure, with half of that expected to come from private capital.

Private sector participation in infrastructure is desirable not only to ensure a larger flow of resources but also to introduce greater efficiency in the supply of these services. In any country, the power sector plays a crucial role in economic growth. In order to achieve sustainable GDP growth, India needs to consistently expand its power generation capacity through the best possible resources. To support the envisaged 8-9% GDP growth rate, which is critical to creating enough jobs and alleviating poverty, the electricity sector needs to grow at 6.7-7.9% compounded annual growth rate[3].

The improvements post 1991, which opened up generation to the private sector with amendments to the Electricity Supply Act have been robust. This has resulted in generation capacity increasing from 70,000 MW to 274,000 MW in 2015. Similarly, renewable energy increased from 18 MW of generation capacity in 1991 to 35000 MW today[4]. Capacity addition has increased manifold since 2009 and the private sector has been at the forefront of such an increase. Private generators now contribute 38% to the installed generation in the country, leaving behind the central and state sector generators that dominated this segment twenty years ago.

In the first three years of the 12th Plan period (2012-17), the country's private sector contributed 63 per cent to the record total thermal power capacity addition of 57,719 MW. This addition of 36,257 MW by the private sector is the highest it has delivered till date in a comparable period. The contribution of the central sector is 16 per cent of the achievement; states did the other 21 per cent of the total. This is a major leap over the 11th Plan capacity addition, wherein the private sector contributed 21,719 MW. The target for the private sector to meet in the coming two financial years is 43,540 MW.



Private sector share has increased from 3% to 38% in the total installed capacity; almost 13 times increase since August, 1995.
Source: CEA Reports, MoP Annual Reports (94-95), IPPAI Analysis

Why the Epochal Shift: The Changing 'Perception'

It is often forgotten that under British rule, private sector participation was the primary route used to develop the Indian power sector. The Indian Electricity Act 1910 set out the framework for the private sector to participate in the distribution and supply of electricity through a system of licences including those for developing power generating stations. Indeed the British incorporated company Bombay Electric Supply & Tramways Company held a license from the Government of Bombay in the 1920s for the supply of electricity to Bombay. However, successive public sector reservation and nationalisation policies following independence reduced the participation of the private sector.

Despite active pursuit of private sector investment in infrastructure including the power sector, by most developing countries and a growing number of success stories, the pace of such investment in India remains slower than initially expected. The private sector looks to invest and make a reasonable profit. However, the flip-flop approach of state policymakers is ensuring that this does not happen. The investor feels that the policymakers have a very positive attitude at the outset but later on they let the project and policies drift, resulting in uncertainty that creates panic in the mind of investors who are saddled with capital-intensive, long-term, low-return, project investments which are illiquid and difficult to exit. This has created a ripple effect of uncertainty across the sector.

The uncertainty has also been caused by the bias of central and state governments in favor of central & state enterprises in tariff decisions, which has not enthused existing players as well as new private entrants. Some instances: state regulators have delayed justifiable tariff increases, parked legitimate expenses as 'regulatory assets' to avoid tariff increases at the behest of state governments, held up electricity trading by placing a very low cap on trading margins, delayed open access on transmission lines by fixing very high surcharges. This changing 'perception' is once again creating an apprehension in the minds of private investors: Whether to invest or not?

One set of problems arises because private projects are invariably subject to tariff regulation, and it is difficult to strike a balance between ensuring that tariffs are sufficiently remunerative to private investors and ensuring that they are seen as fair to consumers. Consumer acceptance is especially a problem where consumers have grown accustomed to unrealistically low tariffs charged by public sector systems, reflecting large explicit or implicit subsidies. Since similar subsidies cannot be extended to the private sector—indeed, their continuation even for the public sector may not be feasible—a shift to more viable tariffs is unavoidable. Unless the need for this shift is widely accepted, it will be difficult to attract private sector investment.

The feeble attempts to reduce electricity shortages through trading have been hindered by inadequate transmission investments by the dominant state undertaking, the Power Grid Corporation, and the reluctance of private investors to invest in a big way in transmission. Hence the sad situation, where surplus power is unused in eastern India and transmission bottlenecks prevents its use in the power-hungry southern states. This demands that transmission be opened up to private investment and the same treatment, as available to the Power Grid Corporation, on thorny issues such as forest clearance, land acquisition, etc, be accorded to the private investor albeit not at the cost of degradation of environment while according clearances for projects involving forest clearance.

All infrastructure services require huge investments. In some cases, they become natural monopolies. Practically, no investor can even try to set up additional transmission lines (for electricity, oil or gas) between the same destinations as the existing government-owned operators influence policies and prevent entry.

As India embarks on a journey towards new and environment friendly sources of energy (RE target of 175 GW by 2022)[5], creation of new monopolies in the RE segment (RECI, SECI) will intrude in the way of achieving those targets and may eventually defeat the true motive behind such an initiative.

Box 1

"The initial response of the domestic and foreign investors to the policy of private participation in power sector has been extremely encouraging. However, many projects have encountered unforeseen delays. There have been delays relating to finalisation of power purchase agreements, guarantees and counter-guarantees, environmental clearances, matching transmission networks and legally enforceable contracts for fuel supplies. The shortfall in the private sector was due to the emergence of a number of constraints which were not anticipated at the time the policy was formulated. The most important is that lenders are not willing to finance large independent power projects, selling power to a monopoly buyer such as SEB, which is not financially sound because of the payment risk involved if SEBs do not pay for electricity generated by the IPP. Uncertainties about fuel supply arrangements and the difficulty in negotiating arrangements with public sector fuel suppliers, which concern penalties for non-performance, is another area of potential difficulty. It is important to resolve these difficulties and evolve a framework of policy which can ensure a reasonable distribution of risks which make power sector projects attractive and financeable" – **Planning Commission (erstwhile) 9th Five Year Plan (Vol-2), 1997-98.**

Nearly twenty years later, the role of private players in power sector development has gotten more obfuscated. The problems encountered by private players as given in the box are remarkably similar to the ones faced by them presently.

Box 1.1

Public Good versus Private Profit

Despite the central government's efforts, capacity addition in power remained grossly inadequate in meeting the rapidly increasing demand. Recognising the crucial need to rapidly augment capacity, the government opened up the sector to private and international participation in the 1990s. However, while the government continued to withdraw from large parts of the infrastructure sector, making way for the private sector under various options (including public–private partnership), the policy maker and regulator remained confused about the primary function of the private sector. The role of the private sector is to invest with a profit motive. If consumer and/or social interest become the expected role of the private sector, then we are clearly looking at a proposition which is a non-starter. As the late prime minister P V Narasimha Rao said at the IPPAI conference in 1994, 'it is not the business of the private sector to invest in social sectors or to provide for poverty alleviation programmes or rural development. It is the job of the government to do that and to leave the private sector to freely invest in infrastructure and make profit so as to encourage other private sector investors who, looking at the success of the first wave, would also invest in the Indian infrastructure sector.'

The role of government regulators and policy makers is primarily to create an environment which will attract private investments into the infrastructure sector, particularly energy, so that capacity can be built up. In fact, the Electricity Act, 2003, specifically states that governments can subsidise consumers as long as they make a provision in their budget and pay the subsidy up front. However, this is not happening for various reasons, political and otherwise, resulting in the consumer being taken for a ride.

The power sector has been in the hands of the state for more than half a century. State governments have been vested with a dual responsibility: adding capacity while, at the same time, fulfilling a rather unique role of being the development catalysts by extending connectivity to remote parts of the country. As this has not been a profitable exercise there is an apprehension that the private sector is not best suited for this responsibility. This apprehension is based on the 'perception' that it is impossible for a private sector profit-seeking entity to provide the same level of service to the public without increasing the tariffs and profiteering. The private sector can only be incentivised to invest in long gestation, capital intensive projects like power generation and distribution if there is sufficient return on investment.

Command and Controlled Competition - Is this the New Norm?

The transition from a command structure to a market structure remains a serious issue. Who will drive this change, when, and to what extent?

Contrary to the mandate of the Electricity Act, no serious attempt is being made to make systems transparent and accountable as a result of which they are incurring large transmission and distribution losses. In fact, there is already a major conflict in many states between the regulatory commission and the state governments, thereby defeating the very purpose of creating regulatory commissions, that is, to distance the state from micro-managing the sector.

Private developers are operating in a competitive environment, but hemmed are in by two state-run monopolies—Coal India and Power Grid—leading to conditions where several factors are beyond their control. The ownership of the grid is a question—do the states have absolute ownership since they pay the capacity charges to Power Grid or is it a national asset open for use to all?

The Private sector is at the crossroads, with odds certainly stacked against them. Investor interest in the power sector is low and most banks and lenders view the sector with suspicion. Development of the private sector has been impeded at every level by issues ranging from the lack of sanctity of contract, issues in fuel availability and inadequate transmission to uncertainty in offtake of power and in payments for power already purchased by state utilities. While Discoms are shying away from long term contracts, Independent Power Producers (IPPs) are unable to raise financing in the absence of long term Power Purchase Agreements (PPAs).

From competitive bidding to nomination basis, private sector players are finding it tough to sustain their business after initial successes. Private sector power equipment companies are finding it tough to compete against central public-sector undertaking Bharat Heavy Electricals Limited (BHEL) who has repeatedly been accused of bagging project orders on nomination basis. BHEL's argument is that the private sector power plants are also ordering equipment on a negotiation basis without inviting tenders, hence what is the fuss all about. However, that argument cannot stick because the government has to procure equipment through a transparent procedure, which in this case is competitive bidding and the basis on which it was awarded the 'Maharatna'[6] status back in 2013. A similar complaint has been made for transmission projects being awarded to the government-owned Power Grid Corporation. While the private sector is keen on investing in the transmission sector, it has to increase its involvement many times more to meet the country's ambitious growth plans in the power sector. A quick resolution to the intertwined issues discussed here will go a long way in accelerating the contribution of the private sector in a healthy and consistent manner.

Conclusion

The current state of the Indian power sector is an acknowledged constraint to the country's growth aspirations. Power supply in India presents a chronic and acute problem that has refused to go away for the past several decades in spite of a range of policy actions.

The Poor financial condition of State Electricity Boards (SEBs), non-signing of fuel contracts and inability to abide tariff agreements by the SEBs are some of the main causes of poor physical performance of private power projects in India.

The way ahead for the power sector would entail working together of the public and the private sector as well as states and centre to lessen the power deficit that presently ails India. A lot of hard work has already been put to overcome this, but a lot will have to be put to bring the Indian power sector at par with global standards.

For, the true shift in the idea of India will only occur if the growing aspirations of India's population in terms of employment and economic development are met and in this regard bottlenecks in the power sector are crucial. Involvement of private sector from a holistic viewpoint will facilitate and hasten the removal of such issues and can spur the country towards a path to greatness.

Referencing

1 World Bank 2012 "Analysis of Experience with Private Sector Participation in the Indian Power Sector." South Asia Regional Energy Studies Series. Prepared by Deloitte Touche Tohmatsu India Private Limited. World Bank, Washington, DC.
2 Annual Economic Survey 2013-14: Finance Ministry.
3 Annual Economic Survey 2014-15: Finance Ministry.
4 CEA Annual Reports.
5 Accessed from Ministry of New and Renewable Energy (MNRE) official website.
6 Consistent performance in a highly 'competitive environment' enabled BHEL attain the coveted 'Maharatna' status in 2013: Accessed from BHEL's website.

Suggested Further Readings

CEA Executive Summary June 2015.
World Bank 2014 "Private Participation in the Indian Power Sector: Lessons from Two Decades of Experience" by Mohua Mukherjee.
RBI (Reserve Bank of India). 2012 Financial Stability Report, Issue No. 6. Mumbai, India: Reserve Bank of India.
Planning Commission 9th Five-Year Plan (Vol-2)
Ministry of Power Annual Report (1994-95)
"Governing Power", SL Rao / TERI Press, April 2004

About the author

Gaurav Sharma is a Researcher at Independent Power Producers Association of India (IPPAI). He completed his BSc (Hons) from University of Delhi in 2010. He has undertaken a number of research/consultancy projects related to electricity / energy sector since 2011 and has contributed to regulatory and policy submissions on behalf of IPPAI. He can be reached for comments on gauravsharma@ippaimail.org

The views expressed are of author and do not necessarily represent the views of IPPAI.