

Indian Power Sector- A Review

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Abstract

Indian economy has been growing at a rate of 6-8 % annually during the last eight years which requires growth of basic infrastructural facilities at a still higher rate. Power sector being a major component of infrastructure development requires a growth rate of 9-10% during the next decade. This requires huge amount of investments and restructuring of power sector, for which Government cannot fund the entire amount independently. Hence, private participation is necessary either as an independent venture or through public-private partnership (PPP). This paper attempts to review the Indian power sector with respect to generation, transmission and distribution of electricity and identify and highlight the key initiatives and reforms undertaken for private participation in the electricity sector and some issues that are being grappled with in effort to make the sector efficient and attractive for investments.

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Introduction

Electric Power Sector is a vital aspect of the national economy. The Gross Domestic Product (GDP) of our country has been growing at the rate of about 6 to 8% for the last several years. The liberalization and globalization of the economy is leading to an increased tempo in industrial and commercial activities and this, coupled with penetration of technology and I.T. in the day-to-day life of the common man, is expected to result in a high growth in power demand. It is accordingly essential that development of the Power Sector shall be commensurate with the overall economic growth of the nation.

Power, being in the Concurrent Subject list under the Indian Constitution, is the joint responsibility of the State and Central Governments. Despite liberalisation and economic reforms of 1991, the power sector in the country is still dominated by the public sector in generation, transmission and distribution segments. Almost 80 percent of electricity is generated by the public sector with the State and Union Governments generating about 49.9% and 31.9% of total installed capacity respectively. The share of private sector in generation is increasing from almost

negligible to almost 18 percent as of 2011-12. The bulk of the transmission and distribution functions are with State utilities, however, with the government is encouraging private sector participation in the transmission and distribution segment.

The electricity generation has been growing at a growth rate of almost 8 percent since last 40 years making India the third largest producer of electricity in Asia. The installed generation capacity has increased manifold from a trivial 1,362 MW in 1947 to 2,05,340 MW as on June 2012. While this is an impressive growth in a long term perspective, the demand continues to outstrip electricity supply. Per capita consumption of electricity, reported at 818.9 kilowatt hour (KWH) according to Central Electricity Authority, is way behind the levels corresponding to high economic growth regions. To meet the increasing demand for electricity, the government has adopted a blend of thermal, hydro, renewable and nuclear forms of energy. However, share of thermal and in some regions hydro-power, are the dominate the generation of electricity. The total power generated-thermal, hydro and nuclear and sector-wise is exhibited in the Table 1 below:

Table 1: Status of Power Generation (As on 30.06.12) (MW)

Sector	Thermal	Hydro	Nuclear	Renewable	Total
Central	47,977.23	9,316.00	4,780.00	0.00	62,073.63
State	55,370.93	27,380.00	0.00	3,524.27	86,275.40
Private	33,088.02	2,595.00	0.00	21,308.21	56,991.23
All India	1,36,436.18	39,291.40	4,780.00	24,832.68	2,05,340.26

Source: Monthly Report of Power Sector, June 2012, Central Electricity Authority

Despite this, the sector continues to face enormous challenges particularly in terms of shortage of peak power, an adverse hydro-thermal mix, unstable grids, frequency excursions, skewed tariff, poor and substandard distribution networks, high aggregate technical and commercial losses, among others.

The total capacity addition in the three Plans put together (Eighth, Ninth, and Tenth Five Year Plans) was 56,518 MW, of which 44 per cent was from the central sector, 40 per cent from the state sector, and only 16 per cent from the private sector. The private sector could contribute only 8.71 per cent of the actual capacity addition in the Eighth Plan, 26.6 per cent in Ninth Plan, and 12.67 per cent in the Tenth Plan. The main impediments for the low performance of the private sector has been the chronic financial weakness of the SEBs; unviable tariffs to IPPs due to the factors such as high cost of liquid fuels, risk factors involved and slow growth in demand for future power below the expected levels; and the lack of recognition of the fact that the distribution segment would need to be made efficient and bankable before private investment and competition emerges in generation. However, in the 11th Five Year Plan, a capacity addition of about 52,000 MW¹ is expected which is over

¹Working Group of the Twelfth Five Year Plan 2012-17, Planning Commission, pp.7

250% of the achievement during 10th Plan and highest ever since independence. The achievement of the 11th Plan could be attributed to various initiatives of the Government like the New Hydro Policy, setting up of Ultra Mega Power Projects, enhancing the partnership of private sector in manufacture of power equipments and bulk ordering of 11 units of 660 MW each with supercritical technology with mandatory phased indigenous manufacturing programme to promote indigenous manufacturing capability. Private sector performance is likely to be much better in the Eleventh Plan and is likely to contribute more than 30 per cent of the expected capacity addition. Table 2 shows the share of the central, state, and private sectors in the previous three Plans and in the current Plan.

Table 2: Plan-Wise Sectoral Share of Capacity Addition

	Eighth Plan	Ninth Plan	Tenth Plan	Eleventh Plan
Central	8, 157	4,504	12,165	21,222
State	6,835	9,450	6,244	21,355
Private	1,430	5,061	12, 671	19,797
Total	16,422	19,015	21,080	62,374

Source: Mid-Term Appraisal of the Eleventh Five Year Plan, 2010

Policy Initiatives

The role and the participation of private industry in the Indian power sector has been limited and confined to specific areas of small jurisdiction and consumer base. About 88% of the generating capacity and all of the transmission are in the public sector while distribution is controlled by state-owned monopolies except in Orissa, Delhi, Mumbai, Ahmedabad, and Surat where these have been replaced by private monopolies. As a part of the efforts for market orientation, the government has focused the policy stance to encourage a greater private sector role. Private sector has been permitted to set up coal, gas or liquid based thermal projects, hydel projects and wind or solar projects of any size, foreign equity participation up to 100% in the power sector under the automatic route for all category power plants. Apart from generation capacity, there is a steady progress towards having a synchronised grid network throughout the country to facilitate efficient power transfers. Building upon the facility of open access and segmented inter-regional transfers, power trading has now emerged as a key route for short-term transactions. Power distribution, so far labled as the weakest link of the power sector, is also showing improvements in terms of fresh investments for loss reduction as well as adoption of new models of private participation. To minimise the role of the Central Government, the State Government and State Electricity Boards (SEBs) are empowered to negotiate directly with developers, facilitating speedy clearances for the investor. The key enabling features of the policy framework since 2000 are:

Table 3

S.No.	Policy	Objectives
1.	Electricity Act, 2003	<ol style="list-style-type: none"> 1. safeguard the interest of the consumers by the independent regulatory commissions 2. promote competition 3. rationalization of electricity tariff 4. ensure transparent policies regarding subsidies, promotion of efficient and environmentally benign policies. 5. eliminate entry barriers in the entire chain of the electricity supply business, 6. facilitate establishments of central and state regulatory commissions and appellate tribunal
2.	National Electricity Policy, 2006	<ol style="list-style-type: none"> 1. accelerated development of the power sector 2. provide supply of electricity to all areas 3. protect interests of consumers and other stakeholders 4. availability of energy resources, 5. technology available to exploit these resources 6. economics of generation using different resources 7. energy security issues
3.	Tariff Policy, 2006	<ol style="list-style-type: none"> 1. ensure availability of electricity to consumers at reasonable and competitive rates 2. financial viability of the sector and attract investments 3. promote transparency, consistency and predictability in regulatory approaches across jurisdictions 4. minimise perceptions of regulatory risks 5. promote competition, efficiency in operations & improvement in quality of supply
4.	New Hydro Policy, 2008	<ol style="list-style-type: none"> 1. Inducing private investment in the hydro power development 2. harnessing the balance hydro-electric potential 3. improving resettlement and rehabilitation 4. facilitating financial viability
5.	Mega Power Projects, 2008	<ol style="list-style-type: none"> 1. grant of mega power projects, 2. fiscal concessions and benefits available 3. price preference to domestic PSU bidders
6.	National Load Dispatch Centre Rules, 2004	Constitution and functions of the National Load Dispatch Centre
7.	Rural Electrification Policy, 2006	<ol style="list-style-type: none"> 1. providing access to electricity to all households by year 2009, 2. quality and reliable power supply at reasonable rates, 3. minimum lifeline consumption of 1 unit per

Contd.

S.No.	Policy	Objectives
8.	Regulations on Tariffs, 2004	household per day as a merit good by year 2012 CERC has notified the regulations on terms and conditions of tariffs in 2004.
9.	Open Access in Transmission, 2004	CERC has made the regulations on Open Access in inter-state Transmission in 2004 to enable operationalisation of open access in the States
10.	Transmission Licensing, 2009	Grant of trading licence and other related matters
11.	Indian Electricity Grid Code, 2006	Rules, guidelines and standards to be followed by the various agencies and participants in the system to plan, develop, maintain and operate the power system, in the most efficient, reliable, economic and secure manner, while facilitating healthy competition in the generation and supply of electricity
12.	Appellate Tribunal for Electricity 2004	Hear appeals against the orders of the adjudicating officer or the Appropriate Commission under the provision of Electricity Act, 200
13.	R-APDRP, 2008	Accelerated Power Development & Reform Programme (APDRP) was launched in 2001, for the strengthening of Sub-Transmission and Distribution network and reduction in AT&C losses and the programme has been extended for as Restructured-APDRP in the Eleventh Plan and Twelfth Plan.
14.	Standard Biding Documents, 2009	To encourage and establish power projects through the Public-Private Partnership (PPP) mode, a precise policy and regulatory framework has been laid down in the form standard model documents. The Standard Request for Proposal (RFP) and Request for Qualification (RFQ) and Transmission Service Agreement in the power sector has been finalised in the year 2008.

Review of Progress

The cumulative investment in power sector has increased over the years from Rs. 47,612 crore in the year 2002-03 to an estimated level of Rs. 1,44,974 crore in the year 2010-11. Out of the total investment of Rs. 1,44,974 crore, private sector contribution is estimated to the extent of Rs. 60,760 crore i.e. 41 per cent. According to the mid-term appraisal of the Planning Commission, the investment in the power sector is estimated to more than doubled over the last ten years from Rs. 12, 926 crore in 2002-03 to Rs. 1,59,471 crore in 2011-12. The revised projected investment in the electricity during the Eleventh Plan period is Rs. 6,58,630 crore out of which 43 per cent i.e. Rs. 2,87,546 crore is expected to come from the private sector. The contribution of the private sector is likely to increase by 50 percent in the Twelfth

Five Year Plan.

Generation: The installed capacity (excluding captive plants) as on 30 June, 2012 was 2,05,340 MW. Out of total installed capacity, the private sector has contributed a share of 27.7 per cent, followed by the Central share of 30.2 % and a maximum of 42% share of State sector. The thermal plant load factor of private power plants has increased from 74.7 per cent in the year 2001-02 to a level of 91 % in 2008-09 as compared to plant load factor of 84.3 and 71.2% of Central and States power plants showing the efficiency improvements in the private electricity generation. Out of the total capacity addition target of 17,601 MW in the current financial year (2011-12), a capacity addition of 20, 501.70 MW is expected to be achieved and the private sector is expected to contribute to the extent of 11970 MW (58 per cent).

The private sector contribution is hovering around 21%, dominated, mostly by domestic players. Since 2003, 30 private power projects totalling 22,038 MW have achieved financial closure. Through the Inter-Institutional Group of the Ministry of Power, 16 private power projects having a total capacity of about 7320 MW achieved financial closure and another 12 projects with a total capacity of 12647 MW are being monitored for facilitating early financial closure. While the availability of plants and equipment is going up with expansion by BHEL from a level of 10,000 MW per annum (December 2007), to around 20,000 MW per annum by the end of 2012, private players like L&T and Mitsubishi JV, Toshiba and JSW JV, and ALSTOM and Bharat Forge are also going to set up new capacities, which will help the Twelfth Plan projects.²

Hydro Power: The pace of hydropower development has been slow. As against the target of 15,627 MW for the Eleventh Plan, only 8,237 MW (53 per cent) is expected to materialize during the Plan. As per the Mid-term Appraisal of the Eleventh Five Year Plan, Hydro power plants are facing hurdles in terms of environment and forest clearances; lack of infrastructure (roads and highways); iii. Land acquisition; rehabilitation and resettlement issues; security clearance; availability of hydrological data to private developers; power evacuation; storage project versus Run-of-River (RoR) projects and long-term financing.

Nuclear Power: The total installed capacity was 4,780 Mw as on 30 June, 2012 which means a contribution of 2.74% in the total installed capacity. With the signing of the Civilian Nuclear Deal in 2008 and the removal of the restrictions of NSG, the Department of Atomic Energy (DAE) envisages adding 5,900 MW in the Twelfth Plan based on domestic manufacturing capability and an additional 10,000 MW with the support of international players.. Companies like Reliance have announced their interest in setting up nuclear power plants.

Ultra Mega Power Plants (UMPPs): The initiative of developing of Ultra Mega Power Projects (UMPPs) which was launched by the Ministry of Power in 2005 to

²Mid-term Appraisal of the Eleventh Five Year Plan, 2007-12, pp. 316

accelerate the pace of capacity addition and to rekindle private sector interest has been proved to be successful. Each UMPP has been envisaged with capacity of 3500 MW or more and would require a capital cost of Rs. 20,000 crore. A total of 16 (sixteen) UMPPs have so far been identified and out of those, 4 (four) of these have already been transferred to the successful bidders. Projects are awarded on the basis of competitive bidding with the bidding based on the first year of quoted tariff. From the initial four, the number of planned UMPPs has increased to nine. The Table 4 gives the details of nine UMPPs and their status:

Out of total identified, four UMPPs have been awarded; first to Tata Power Company in December 2006 at Mundra district in Gujarat. Similarly, the Sasan UMPP was awarded to Reliance Power Limited (RPL) in August 2007 and two units are expected to be commissioned by April 2012. Krishnapatnam UMPP was also awarded to RPL in Nov. 2007. It has received coastal clearance and is scheduled to be commissioned between September 2013 and October 2015. These projects are mainly based on imported coal.

Captive and Merchant Power Plants: There has been a dramatic increase in the number of captive plants. The installed capacity of captive generation of 1 MW or more has grown to 31,000 MW by the end of 2010-11 i.e 25% of the total installed capacity. The reason for this spurt is the steep growth in industrial production coupled with rising shortages in many states. Mostly industries like iron & steel, aluminium, cement, sugar, fertilizers, paper and chemicals, wherein the cost of electricity can be anywhere between eight to twelve per cent of the total cost of production, have their own captive plants. The captive generators are also being encouraged to supply their surplus power to the grid. A Capacity addition of around 12,000 MW is likely during 11th Plan. A capacity addition of approximately 13,000 MW is likely during Twelfth Plan (2012-17).

Challenges: Despite a manifold increase in the installed generation capacity, the

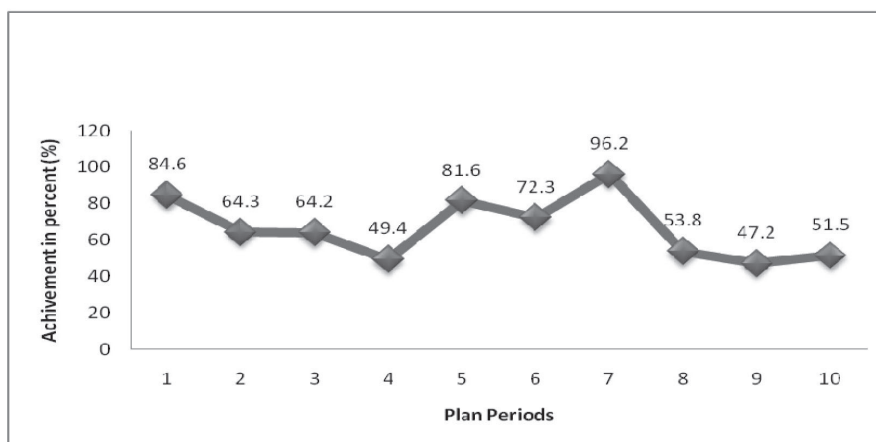


Fig. 1. Achievements in Capacity Addition Target
Source: Annual Report of the Ministry of Power, 2010-11.

Table 4: Power Supply Position

Period	Peak Demand (MW)	Peak Met(MW)	Peak deficit/ surplus (%)	Energy Demand (MW)	Energy Availability (MW)	Energy deficit/ surplus (%)
9 th Plan End	78,441	69,189	11.8	5,22,537	4,83,350	7.5
2002-03	81,492	71,547	12.2	5,45,983	4,97,890	8.8
2003-04	84,574	75,066	11.2	5,59,264	5,19,398	7.1
2004-05	87,906	77,652	11.7	5,91,373	5,48,115	7.3
2005-06	93,255	81,792	12.3	6,31,757	5,78,819	8.4
2006-07	1,00,715	86,818	13.8	6,90,587	6,24,495	9.6
2007-08	1,08,866	90,793	16.6	7,39,345	6,66,007	9.9
2008-09	1,09,809	96,785	11.9	7,77,039	7,46,644	11.1
2009-10	1,19,166	1,04,009	12.7	8,30,594	5,82,225	10.1
April-Dec.2010	1,19,437	1,07,286	10.2	6,38,181	65,529	8.8

Source: Annual Reports, Ministry of Power

country has failed to meet power sector targets by a significant margin. Figure 1.1 indicates the slippages in terms of percentage and it can be seen that the achievement in generating capacity has fallen short of the targets in the entire planning process of 60 years except during the Seventh Five Year Plan when the achievement has been noted at 97 per cent.

The sector face a host of factors for the slippages ranging from shortage of fuel or fuel availability (especially thermal projects), shortage of equipment to the delay in financial closure, land acquisition problems, environmental clearances, financial risk, manpower shortages and inadequate preparedness of projects. Including this, the Hydro projects also facade issues like rehabilitation and resettlement, security clearances, financing, availability of hydrological data and power evacuation. Although measures have been defined by the policymakers and stakeholders in a sense of complacency that the issues will indeed be resolved and India will plug the supply deficit of power to resolve the same but the outcome yielded are not satisfactory and the country still is short of power at a rate of 10.3 per cent in the peak times and energy deficit still hovers around 7.5 per cent. The following table gives the power supply position in the last 10 years and the shortfalls thereon:

An ambitious target of 78,700 MW was set up for the Eleventh Five Year Plan. However, in light of the slippages in first three years, the Mid-Term Appraisal of the Eleventh Five Year Plan has scaled down the target to 62,374 MW which involves a significant improvement in the pace of capacity addition in the remaining two years of the Eleventh Plan. However, according to the Working Group Report of the Twelfth Plan, a capacity addition of 52,000 MW is expected to be achieved in the Eleventh Plan. The key obstacle to power generation in the present times is the fuel supply including drop in domestic gas production from Reliance industries D-6 block, imported LNG which is three times as costly as local supply and state monopoly Coal India which is unable to meet the production targets as environment ministry is not allowing it to uproot trees to extract coal and also under “No Go” policy, restrictions have been imposed on mining of coal. Further, the imported coal-fed plants and projects won under competitive bidding cannot pass through fuel hikes in tariffs and are losing heavily. Therefore, the capacity addition targets are showing slippages.

Transmission: The guidelines for private sector participation in transmission sector were issued by the government in January 2000. These guidelines envisage two distinct routes for private sector participation in transmission: Joint Venture (JV) route, wherein the CTU/STU shall own at least 26% equity and the balance shall be contributed by the JV partner; and Independent Private Transmission Company (IPTC) route, where 100% equity shall be owned by the private entity and shall facilitate private investor including investors coming through FDI to invest 100% by themselves. The standalone private investment in the power transmission has been difficult to achieve due to a combination of payment security issues and pre-commissioning risks, and forest and environment clearances. However, only examples of private participation in transmission are the joint venture-Tala

Transmission System was established in transmission by the PowerGrid and Tata Power for implementation of major transmission lines of 1200 KM costing about Rs 1,100 crore which got commissioned in 2006-07 and the other is first the Development of Transmission system in Haryana on the PPP basis. The Transmission System for evacuation of power from 2x660 MW Thermal Power Project and 1424 MW Adani Power at Mohindergarh through Public Private Partnership has been developed. The project has already been awarded to M/s Kalpataru Power Ltd. through competitive bidding.

National Grid: Recognizing the need for development of National Grid, thrust was given to enhancement of the interregional capacity in a phased manner. The total Inter-regional transmission capacity by the end of 10th Plan was 14,050 MW which is now planned to grow to about 25,650 MW by 11th Plan end through creation of “Transmission Super Highways”. PowerGrid is working towards achieving this target of creation of the National Grid along with other private players. The Central Transmission Utility, Power Grid Corporation of India Limited (PGCIL) has planned to invest Rs. 55,000 crore on transmission infrastructure to expand the existing transmission network and grid strengthening. Efforts to strengthen the grid like closely integrated transmission planning, additional interconnections among various generating projects and more inter-regional transmission links and contingency arrangements are under implementation.

Challenges: In comparison to the world average of 50 to 60 %, transmission lines in India are loaded up to 90% of the capacity. To achieve the Government of India target of ‘Power for All By 2012’ or ‘Power for all by 2012’, it is envisaged that our installed generation capacity should be increased at least to 2,00,000 MW by 2012 from the present level of 1,14,000 MW. Huge investments are required to expand inter-regional grid capacity.

Distribution: The distribution segment is facing impediments in terms of operational efficiency as well as financial performance. The slow pace of investment generation in the distribution infrastructure can be attributed to the severe cash flow problem associated with the under-recovery of costs and poor collection efficiency. The distribution utilities have poor operational efficiency which further aggravates the situation imposing a heavy burden on the economic resources of the respective state governments. On an average, the country loses about 26.15% of electricity in terms of Aggregate Technical and Commercial losses in the year 2010-11 as compared to a level of 32.54% in the year 2002-03. The total losses incurred by the distribution companies, taken together were estimated at about Rs 40,000 crore in 2009–10 as compared to Rs. 24,063 crore during 2001-02. These are likely to rise to even higher levels because of the increasing share of short-term purchase of power at high prices. According to the Thirteenth Finance Commission Report, the losses of the distribution companies are expected to increase to Rs. 1,16,000 crore in 2014-15. The rate of return of the distribution utilities has deteriorated from a level of 32.8% in 2001-02 to 14.3% in the 2008-09.

R-APDRP: With the objectives to reduce the AT&C losses, unsustainable commercial losses of State Utilities and improvement in the quality and reliability of supply of power, R-APDRP was launched. Till 31 December 2009, Rs 1,094 crore was released under this scheme, out of which Rs 1,068.57 crore is the loan to PFC to disburse to utilities and Rs 25 crore is a grant to PFC as rolling advance against fee to the nodal agency. PFC in turn has released Rs 692 crore to various states.

Open Access: Competition in the distribution segment of electricity which was envisaged in the Electricity Act, 2003 which allows more than one licensee in the same area of the supply has not been introduced. As a part of reform process, the CERC issued Inter-State Open Access Regulations which became effective from 1 April, 2008. Two inter-ministerial Task Force had been set up under the chairmanship of Shri B. K. Chaturvedi, Member (Power), Planning Commission, to examine the current status and make recommendations on measures for operationalisation of the provisions of the Electricity Act 2003 in respect of open access which submitted its reports. But not a single case of open access has been registered till date.

Distribution Franchisees: To bring reform in the distribution segment, the government introduced Franchisee model in the distribution circle for private participation in the area. The key role of private franchisees includes reducing losses, improving billing and collection, and upgrading and strengthening distribution systems. Some of State Governments like Maharashtra, Uttar Pradesh, Uttarakhand and West Bengal had taken the initiative to introduce an input-based franchisee for distribution in selected towns. Further, a Task Force has been set up under Member (BKC), Planning Commission in November, 2010 for private participation in the distribution of electricity which is expected to work out the different forms of bringing in private investment in the distribution segment including Public-Private Partnership (PPP) model, Franchisee Model or any other form.

Power Trading: Short term trading is an essential tool for optimization of resources and plays an important role in deficit scenario for harnessing additional / captive sources of generation for meeting the peak demand. Trading of electricity in India has picked up considerably after the advent of Electricity Act 2003 which recognizes trading as a distinct licensed activity. Two Power exchanges, namely, India Energy Exchange and Power Exchange of India Limited (PXIL) are existing in the country. There are 43 trading licences at present. Of the total electricity procured in India in 2011-12, the short-term power market comprised 11 per cent. The balance 89 percent of generation was procured mainly by distribution companies through long-term contracts and short-term intra-state transactions. In volume terms, the size of the short-term market in India was about 94.51 billion kWh (units) in the year 2011-12.

Challenges: Due to inadequate investments over the years for system improvement works, which has resulted in unplanned extensions of the distribution lines, overloading of the system elements like transformers and conductors, and lack of

adequate reactive power support, the technical losses in the system are exceptionally high. Further, the commercial losses are mainly due to low metering efficiency, theft & pilferages. The commercial losses of the State Electricity Boards are expected to increase to Rs 60,000 crore in 2010–11. Power in the country is being traded at a high cost Rs. 4-6 per unit implies retail tariff of Rs. 6-9 per unit which is the highest tariff among the developed countries in the world. Discoms bought 9,453 crore units of electricity for Rs. 39,425 crore in 2011-12. Despite mandatory provision of open access in distribution as per Electricity Act, 2003, not a single case of open access has been registered in the country even after 8 years. Urban Distribution Franchise Model being adopted by few states is essentially a sub-contract for discharging the O&M obligations of the Discom. But the Model is inconsistent with section 12 of Electricity Act, 2003. Franchisee is not regulated by the SERC even though it is distributing electricity; implying regulatory, investment, supply, competition and sustainability gaps. Distribution segment is becoming unsustainable and the Electricity Act is not being implemented in letter and spirit.

Other Initiatives: Some of the other initiatives of the government include the following:

- **RGVY, 2005:** Continuation of “Rajiv Gandhi Grameen Vidyutikaran Yojana”. Scheme of Rural Electricity Infrastructure and Rural Household Electrification”, has been sanctioned in the XI-Plan for attaining the goal of providing access to electricity to all households. The total numbers of villages electrified till July,2011 is 5,39,127 which implies that 90.8 % village electrification has been achieved.
- **Rural Electrification Policy, 2006:** The central government has notified rural electrification policy in the year 2006 with the objective of providing quality and reliable power supply at reasonable rates, minimum lifeline consumption of 1 unit per household per day as a merit good by year 2012. A total of 83.25 lakh (21 per cent) households have also been provided connections out of which 72.69 lakh (31 per cent) BPL households have been provided free connections. This has resulted 4.16 crore rural people with access to electricity.
- **Investment opportunities:** There a lot of opportunities for the private sector investment in the generation, transmission and distribution sector. The Government has announced ambitious plan to add around 80,000 MW of capacity addition in the Twelfth Plan. It is proposed to add this capacity through Central Power Utilities, State Power Utilities and private investors. total fund requirement for development of transmission system is estimated to be of the order of Rs 1,80,000 crore out of which Rs. 25,000 Crore is expected to be from the private sector. Encouraged by the success of privatisation of power distribution in Delhi, the state governments of Andhra Pradesh and Karnataka have started drawing up a road map for privatisation of power distribution in their respective states.

Conclusion

The government has recognised the importance of changing the policies and creating an environment conducive to sustainable private sector involvement in the power sector. However, the gap between demand and supply in the Power Sector is still huge. Many of the “B” and “C” category towns have daily power cuts of 5-6 hours even in the non-peak months. The small and medium industries have to rely on their own generators to continue production but that comes at higher recurring costs and more capital investments. Thus, products of many of these industries become uncompetitive as compared to cheaper imports from other countries. There is a need to involve private sector more intensively in Power Sector to bridge the gap between demand and supply.

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