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STATE OF ELECTRIC POWER SECTOR IN BIHAR

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Introduction:

If economy has to grow more, energy sector has to grow even higher and being cleanversatile form of energy, electric power is one of the most important infrastructure of thenational economy. The power sector in India has an installed capacity of 159,400 megawatt(MW), and faces a peak deficit of 13.3% and an energy deficit of 10.1%. The key prioritiesof the Government of India laid out in the National Electricity Policy are to increase percapita availability of electricity to over 1,000 kilowatt-hours (kWh) by 2012, with minimumlifeline consumption of 1 kWh per household per day. India also intends to make greateruse of indigenous hydropower and renewable energy resources, particularly solar andwind energy, in the coming years. It has recognized that the past poor performance of stateelectricity boards put significant strain on public finances and over the last seven years hasinitiated programs to reform and restructure electricity boards, establish open access, andrationalize tariffs. Independent regulatory bodies were established nationally and in eachstate.

Providing affordable energy is essential for economic development, human welfare andhigher standard of living since independence India has taken rapid strides in the powersector both in terms of enhancing generation and in making available for two widelydistributed geographical boundaries installed. Generation capacity has increased from amayor 1362 MW in 1947 to 11000 MW in October 2003 and the annual generation is nowover 530 MU. The power transmission and distribution network has also grownsubstantially. The demand for power has been continually outstripping the growth ofgeneration and therefore energy shortages still prevails in the country either due toinadequate generation or inadequate transmission and distribution facilities. The demandfor electricity in the country has been growing at an average growth rate of import 7 to 8%and demand-supply gap has violent over the years providing reliable and inexpensiveelectricity is the goal for economic development of the country and better standard of livingof the people. The present per capita consumption of electricity in the country is about 650kwh.

Present position-

Power sector in India is in precarious condition and the current financial predicament maybe attributed to managerial inefficiency and non-cost effective tariff structure. The

physicalsymptoms of such a system are high level of T&D losses, power theft, inadequate meteringin effective practices of billing collection and layout of liquid in the Power Sector, which hasresulted in accumulating Payables to the railways CPSUs and suppliers of coal. States haveto provide several non remunerative social services suchas rural electrification freeunlimited power supply and other subsidized rates to certain category of consumers due topolitical compulsions. The losses have gone up to dangerous levels taking as high as 50% insome States. The main issues confronting the power sector are therefore both ofoperational and regulatory in nature. The Government has the liberated at length uponthese issues and concerted efforts are being made to address them in a cohesive andstructured manner. Fortunately the situation has shown indications of improvement in thefinancial health of SEBs.

The Electric Power industries is a highly capital intensive sector with power projectshaving a long gestation period typically of about 4 to 5 years. Several associated crucialissues which impede the growth of power system like environmental stipulations, R&Rproblems etc., also need to be tackled in a time bound manner. The primary resources ofpower generation are unevenly dispersed in the country. In the past State ElectricityBoards have failed to provide for substantive generation expansion with correspondingexpansion in transmission and distribution network to meet the ever growing demand.This has resulted in a demand gap of 9 to 13%. It has felt in the seventies that Centralgovernment should come forward to take up generation and transmission projects underthe Central Sector to assist and argument the efforts of states for improving the powersupply position. The NTPC NHPC and PGCIL were accordingly set up in a phased manner.

Role of Power and Energy in Economic Development

The most important single factor which can act as a constraint on economic growth of aneconomy is the availability of energy. There is direct co-relation between the deg ofeconomic growth, the size of per capita income and per capita consumption of energy.Since, energy is an essential input of all productive economic activities, the process ofeconomic development inevitably demands increasing higher level of energy consumption.

India is the second largest in population in the world with lowest per capita incomes in theworld. In the matter of total per capita consumption of energy, India ranks very low indeed.However, energy consumption in India has been steadily going up, although, in per capitaterm it is still much lower than developed countries.

Electric Power position in Bihar

So far the per capita consumption of power in Bihar state is concerned it is less thanoptimal in comparison to all India consumption level. The total consumption per capita indomestic, industrial, streetlight, irrigation and non public utilities is much below in Bihar.Afterwards, the per capital consumption units shot up to 86.61 in 1991-92 and remainedstagnant with a bit little change in 1992-93. In the year 1993-94 the per capitaconsumption increased to 99.98 units but it came down to 96.35 in 1994-95. The all Indiafigure displays increasing trend during the same year. In industrial consumption per capitaunit consumption has been increasing but in agricultural sector shows the game of ladderand snake remained around 12 to 18 units over the years. This shows that power consumption in Bihar State is low and hence it is said to be the main cause of itsbackwardness. This poor show of per capital consumption may be attributed to the poorperformance of the Bihar State Electricity Board.

Thus, the electrical power as the main source of energy is an essential ingredient ofeconomic development and it is required for commercial and non-commercial uses.Commercial uses of power refer to the use of electrical power in industries, agriculture andtransport. Electrical power required for domestic lighting, cooking, use of mechanicalgadgets like the refrigerator.

Sources of Electric Power

There are three main sources of generation of electrical power, viz., thermal power, hydropower and nuclear power. Among these the thermal power generates electricity by coaland diesel whereas hydro power is generated by water. This power has several advantagesbecause it is the most economical source of energy. There is no problem of pollution ofatmosphere or disposal of waste matter in generation of hydro power. Oil, coal, gas whichcan be used for producing electricity are in short supply and have implication in terms ofhighcost and exert greater pressure on foreign exchange resources. Hydro power caneasily replace them.

It has, however, been argued that hydro projects take a long period of gestation ascompared to thermal project. This point was examined by the Power Enquiry Committee

which after thorough investigation has concluded that in case of hydro project, ifthoroughly examined and designed before implementation, the actual period ofconstruction will be nearly the same as that of thermal projects. After the tremendousenthusiasm for hydro electric projects during the first and second plans, there wasslackening of emphasis on hydro schemes. This was an unwise step and there is a need toreverse this trend.

In Bihar the installed capacity of the thermal power is more than hydro power. The totalinstalled capacity of Patratu, Barauni, Muzaffarpur and Karbighia (Patna) is 1393.50 MW ason 31st March 1995 and the installed capacity of hydro power of Koshi and Subarnrekhaamounts to 149.20 MW. We have to rely more upon the thermal power. But the power

generated from thermal is more costly than hydro, though we need a cheap source ofpower for the Industrial and agricultural development in Bihar. The demand of power isincreasing but the production and distribution are decreasing. This is why, in Bihar the percapita consumption of power is still very low. The further prospects of power generation inBihar seem to be bleak and hence our economic development will be hampered.

To sum up:

As the demand for electrical power has been rising continuously in urban and rural areas,the generation and distribution has not risen proportionately. The critical problem area inthe power sector is the poor performance of the State Electricity Boards which generateand distribute power, set power tariff and collect revenue from users. A serious weaknessof State Electricity Board is the sub-optimal capacity utilization of its thermal generationunits and high transmission and distribution losses. Thermal plants have generally sufferedfrom low capacity utilization largely due to deficiencies in the generating equipment, poorquality of coal received by the power plants etc. This has been an important factor inchronic shortage of power in Bihar. Thus, the serious weakness of Bihar State ElectricityBoard is of its continued losses and its inherent inability has retarded the development ofBihars economy.

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