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## **Abstract**

Electric power is so vital to both our economic and personal wellbeing that the erstwhile state policy in most of the developing countries, including India, had vested the power industry in the hands of the state as a promotional agency for subsidized supply. However, with the onset of the neo-liberalism in the wake of the fall (of the threat) of socialist alternative, the promotional orientation in the state policy had to give way to efficiency considerations in the sense of a neoclassical market economy. Thus has started the infamous power sector restructuring, the technical term for ultimate privatization. Radical policy changes were legislated in India and so far 13 States have reorganized their power sector; in Orissa, Delhi and Noida in Uttar Pradesh power distribution was entirely privatized. Kerala with a militant trade union presence has so far been dragging her feet, even in the face of the stern legislative requirement, portending an ultimate surrender. In this context the present paper attempts to draw some lessons from actual experiences elsewhere.

# **Power Sector Reform: Some Lessons for Kerala**

*Vijayamohanan Pillai N.*

## **1. Power sector reform: 'There is no alternative!'**

Since electricity cannot be readily stored, but must be supplied continuously in adjustment with varying demand, it is technically required that power sector is to be a vertically integrated natural monopoly of generation, transmission, and distribution. Scale economies and specific assets (those with high costs for consumers to switch suppliers), particularly in distribution, provide the natural monopoly with considerable market power. As electric power is vital to both our economic and personal well-being and thus to development in general, a power system is expected to supply electrical energy as economically as possible, and with a high degree of quality and reliability. If its supply is left to the vagaries of the market forces generated from personal profit motives, a sizeable proportion of the population without the backing of adequate purchasing power would remain excluded from development. Hence the significance of control or regulation of this sector. In most of the countries, therefore, the government had wielded the monopoly power of the electricity industry for the general wellbeing. The Venkataraman Committee of 1964 in India has thus rightly stated that the Electricity Boards as statutory bodies intended to play a promotional role in power development will have to subserve the socio-economic policies of the State and therefore cannot view every one of developmental activities exclusively from the point of view of profits or return, and that the programs like rural electrification may not be profitable looking purely from a commercial angle, but electrical undertakings will have to implement this program in the national interest (Government of India 1964 a).

However, the post-war period public enterprise experiments had an unfortunate but avoidable history of dysfunctionings in general in a background of high level corruption and pork-barrel politics. Subsequently, the Thatcherite experiments, on a 'There is no alternative (TINA)' logic, brought the public sector down from the 'commanding heights' to a tragic, premature end. The reform in the electricity supply industry (ESI) of England and Wales was ranked as one of the most ambitious and the most appealing attempts anywhere to introduce competition into a normally vertically integrated monopoly, This in turn had far reaching consequences of spread effect across the globe, ushering in an era of re-emerged liberalism. Further fillips came from the Reaganomics,

and the historic fall of the Communist Bloc in the 1980s. Still further fuels were poured by the premier international financial agencies in the course of their apotropaic mission of delivering the developing nations from the apparent fiscal crisis that their 'infatuation' with the public sector slogans eventually enticed them into. And thus started the siege!

While power sector reforms in most of the developed nations have largely been an emulation endeavour of the famous 'big experiments' of the UK with the radical liberalism, the causative spur for reforms or restructuring in almost all the developing nations has been whipped up by their survival surge out of the infamous fiscal crisis. Chile pioneered the movement, much before the UK, initiating the reform process as back as in 1978 with the help of the World Bank. The 'global fiscal crisis' gave the World Bank the much sought after leverage in devising a conditional loan policy. In fact the euphemism of structural adjustment entered into the international parlance in 1980 with the introduction of the World Bank's structural adjustment loan (SAL) as a new type of credit. This was to provide quick-dispersing loans to finance general imports over a period of years conditional on an agreed set of measures intended to strengthening the balance of payments (BoP) while maintaining a development momentum. During the 1980s, however, the Bank's original emphasis on the BoP gradually faded away, while the stress upon the 'economy-wide programs of reforms' got much more strengthened. Later on the Bank switched emphasis from SAL to sectoral adjustment loans with narrower policy objectives, though the general policy thrust is similar. For added momentum, the International Monetary Fund (IMF) also rose to the occasion in 1986 with a new Structural Adjustment Facility, intended to provide medium-term BoP assistance to low income countries facing protracted balance of payments (BoP) crisis in return for a program of policy measures dictated by the IMF. It was augmented at the end of 1987 by an Enhanced Structural Adjustment Facility with considerably greater resources.

Most of the countries in Africa, Latin America (Chile, Argentina, Brazil, Uruguay, etc.) and Asia (New Zealand, Malaysia, the Philippines, Thailand, etc.) set out on such reform path towards a deregulated privatised electricity industry. In all these countries electricity supply is now no longer the statutory monopoly of the State-owned public utilities; independent power producers (IPP) have already made their powerful appearance. Power ministries or authorities have been converted into corporations (even in the 'socialist' China and Vietnam). Most of the former Communist Bloc countries also started large scale restructuring: the Czech Republic, Hungary, Poland, and Croatia, who were also keen to join the European Union (EU). Among the OECD countries, the UK, Canada, Germany, Spain, and Australia made 'great strides' towards privatisation, while liberalisation gathered momentum across the US, Ireland, Sweden, Norway, and New Zealand. The only electricity industry in the public sector that still stands impervious to the sweeping waves of the so called reform reagents is the *Electricite de France* (EDF) in the hands of the French Government. Within the EDF, the electric sector is totally integrated – generation, transmission and distribution. The vertical integration includes also the supply of primary energy supplies viz., water and coal. Countrywide, the state's monopoly consists of 85 per cent of the generation, 100

per cent of the transmission, and 95 per cent of the distribution. Private electricity production is subject to heavy constraints – it is forbidden to sell or to supply electricity to a third party. The producers, having surplus power generation, net of their own consumption, are connected to EDF's network, and EDF is bound to buy the private production.

## **2. Lessons from the Global Experiences**

One of the most pronounced effects of liberalisation of the power sector has been an improved power supply position in those countries where power shortage as a major problem was one of the primary causatives for the opening up of the power sector to IPPs (as in the Philippines, for example). However, in some other countries (e.g., Indonesia and Thailand) this has resulted in over capacity and the consequent excess obligation to make capacity payments (World Bank 2000). The evidences on efficiency, the singularly acclaimed hallmark of competition, however, are not conclusive. The results are mixed as regards the investment efficiency (long-run) and operating efficiency (short-/medium-run).

'Where privatisation has occurred with the liberalisation of an energy sector, the cost of capital used in decision-making is likely to increase. The cost of capital for such new projects increases because of the reduced availability not only of cash-flow to repay investments guaranteed by taxpayers and captive customers, but also of favourable interest rates which a government [on the other hand] can obtain for financing projects', according to a 1998 Report on Liberalization and Privatization of the Energy sector by the International Chamber of Commerce (ICC 1998: 76). Such an increased investment cost regime necessarily leads to higher (than socially optimal !) marginal cost and tariff of electricity. For instance, most of the fast track projects of the IPPs especially with predominantly foreign funding, Dabhol Power Project being an initial typical case, accepted wholeheartedly by India, have had capital costs significantly higher than the potential indigenous alternatives (say, of National Thermal Power Corporation, NTPC). (For example, the capital cost of Dabhol Power Project (Phase I) was Rs. 4.48 crores per MW, whereas that of the NTPC projects might have been in the range of Rs. 3 crores to Rs. 3.6 crores per MW. The IPPs with foreign direct investment (FDI) imposed as much as 40 per cent service cost on foreign resources, while the upper bound for the cost of foreign resources could have been barely 15 per cent). Most of the IPPs are financed through bilateral credit, which perforce involves tying of equipment, and overpricing. Experiences of other developing countries on liberalisation path may not be much different and an inductive generalisation of the Indian experience is quite warranted. For example, in Indonesia, tariffs in the PPAs, established through negotiation between PLN and project companies (including consortium partner companies owned by or with close links to high government officials), have been in the range of 6 to 8 US cents per unit, far higher than PLN's retail tariff rates of about 3 US cents per unit (World Bank 2000). Moreover, indexing the PPA tariffs to the US dollar in most of these developing countries serves as a heavy drain of the limited forex reserves, and the 'fiscal crisis' has dealt severe blows to these economies through this

provision. The long-run least cost criterion of (investment) efficiency is under sure shadows in these countries. In the case of liberalising developed countries, for example, the UK, the 'main argument for expecting improved investment efficiency is that a privatised industry is likely to introduce proven technology more quickly, while avoiding the temptation to invent the next-generation technology (such as Advanced Gas-cooled Reactors, AGRs)', that saves investment costs. But nothing bars a public sector utility too to follow suit.

A significant component of operating efficiency concerns using the right inputs of fuel and labour in the right amounts, i.e., reducing the costs of generation. In the UK, 'The effect of privatisation on the generators is that they have nearly halved their staff in the first three years, as well as closing research laboratories. There are clearly strong incentives to reduce the cost of fuel' (but 'this has primarily affected British Coal'). In the investor-owned utilities in the US, the same pattern of a decrease in the level of staff is registered, with a reduction of about 100 000 employees during 1986-95 period. Their total operating and maintenance (O&M) costs have decreased by nearly 25 per cent, mainly, however, due to the decline in the fuel costs, though there has been some reduction in non-fuel O&M costs. (ICC 1998: 53-54). The internal restructuring of the Electricity Corporation of New Zealand (ECNZ) resulted in reduction of staff numbers directly employed from around 6000 in 1987 to fewer than 3200 by 1992 (Culy, Read and Wright 1996: 333). Though the reduction in the number of the employed has been accused of adversely affecting customer service, there is not enough data to support a conclusion either way.

Many studies in the US have found that the electricity prices of the publicly owned utilities are much lower than of the private utilities, the prices of the regulated privately owned electric utilities being lower than of the unregulated ones (Smiley and Greene 1983; Moore 1970; Peltzman 1971). Some studies (for instance, Pescatrice and Trapani 1980) have found the costs incurred by private utilities as much higher than the costs of public utilities.

The energy crisis, particularly the Californian power crisis, has however, lent an inflationary trend to the power price in general. The worst hit has been California, whose electricity prices had been much higher than other states' prices in the US, on account mainly of cost overruns of nuclear power and the expensive alternative 'green' power. Deregulation was conceived of inducing competition among numerous sellers and reducing prices. However, the wholesale electricity peak hours spot prices in California, which was much less than \$ 50 per megawatt-hour before 1998, began to shoot up by 2000 and crossed \$ 300-mark by 2000 end (*The Economist*, January 20, 2001: 57). On May 8<sup>th</sup>, 2001, it reached the all-time high of \$ 560 per megawatt-hour (*The Economist*, May 12, 2001: 39). With the retail prices being kept capped, these rate hikes have not affected the customers, but the suppliers have been driven to the red. Under pressure from the suppliers, however, there was initially a 10 per cent rise in the retail rates, and later on by more than 40 per cent (mainly for business customers). Finally as there appeared signs that California's power crisis might be spreading to neighbouring states, the top electricity regulator of the country,

the FERC, tightened its grip; in June 2001, it unanimously voted to impose a form of price control on wholesale electricity prices in 11 western states, including California.

The labour markets of the developing countries on the liberalisation front have however been the worst affected. Phenomenal increase in economy-wide unemployment has been the pinching price of reform in these countries (for example, Argentina, Chile, etc.; some of the European countries too have faced the same problem, for instance, Sweden), in terms of big cuts into the over-manning inefficiency in the public sector, coupled with a complete employment freeze in this sector following fiscal tightening measures by the Governments. Whereas in the developed countries such as the UK, the US, Australia, etc., the reform-induced unemployment rise has subsided in due course, it has remained unabated in the other countries on account mainly of structural potential differences. The developed countries have already been endowed with a developed and hence highly flexible and absorbent private sector; moreover, the erstwhile public sector, once restructured and opened up, has also been able to respond in quick positivity to the changes by accommodating more private initiatives with copious openings. Such structural resilience and adaptive response, promoting 'inward' investment, cannot be expected in a developing economy with an immature and imbecile private sector; and the drastic cuts into (over-)employment in the restructured sectors in these countries just go to swell the tidal waves of unemployment. The reform has been an ill-timed imposition, ignoring the logical necessity of development of some prerequisites for it, at a high cost.

A perverse effect of the private initiative to increase cost efficiency in restructured ESI has been the strong incentives and tendencies to retire the older, labour-intensive, coal-fired power plants, especially in the UK. The real motive behind this has, however, been to raise prices by restricting supply (Newbery and Green 1996: 74). Price-raising machinations are innate to practical private enterprise logic, through, say, collusion. Competitive efficiency presupposes a transparent, liquid market. On the other hand, 'In an imperfectly competitive industry, the opportunities for raising prices above operating cost is greater.' (op. cit.: 71). In the English electricity supply industry (ESI), for example, the combined market share of generation output of the privatised National Power and PowerGen, among about 35 generation companies, has been about 50 per cent; such large size (market concentration) has given these two generators 'the ability to bid at prices well above marginal cost, with potentially serious dead-weight losses as a result' (op.cit: 73; also Green 1999), giving the lie to the ideal of competition by means of transparency and liquidity. This experience has taught, for example, Argentina, to divide the generation sector of its ESI into a number of generation companies of comparable size before privatisation. However, such horizontal split may not often be technically feasible and economically viable, much of which depends on the size distribution of plants also. On the other hand, market liquidity as well as transparency might be secured under conditions of a contestable contract market, that might drive the contract prices of the generators down to the long-run marginal cost (LRMC) of entrants (Newbery and Green 1996: 73), if such conditions are achievable.



That price tending towards LRMC would be higher after privatisation is a foregone conclusion, and experiences across the globe corroborate this. Moreover, MC pricing favours the large industrial customers and penalises the small retail consumers (in sharp contrast to the actual practice in many developing countries). Thus electricity prices have declined in real terms much more for the industrial customers, for instance, in the UK, the US, and in the Nordic market. Real price reductions for domestic customers in these developed countries have however been less, partly because of the lack of economies of bulk purchase unlike in the case of larger consumers, and because of the expensive meter charge requirements (ICC 1998). In most of the developing countries, electricity prices were heavily subsidised. For example, the World Bank Report on Long Term Issues in India's Power Sector (1991) estimated that the average customer tariffs in India were less than half of LRMC. Liberalisation lets loose this spiral up across the LRMC cap, as the Philippines experience confirms. The entry of IPPs there has resulted in very high cost of power. We have already seen that the entry of IPPs with FDI (e.g., in India, and in other developing countries too) into the power sector generally results in higher (than socially efficient) marginal capacity costs and hence prices. Rapid liberalisation measures in developing countries often involve some ineluctable tendencies of *ex cathedra* assertions and attempts to legitimise such monopoly pricing practices in the hope of attracting IPP entry, and at the same time to impose cold turkey measures of cost-oriented sharp tariff rises on the customers, unlike the phased program of tariff revisions in the Philippines. Apt examples in point are the controversial behaviour of the Telecom Regulatory Authority of India in tariff revision on the morrow of the privatisation of the sector, and the recent electricity tariff hike in AP in line with MC pricing principles that has sent the worst shock waves across a hitherto pampered sector of residential customers. In some of the countries, this is often characterised and justified in terms of a trade off between cheaper power and more investment for the benefits of quality of service. In China too the 'consumers are heavily affected by the reforms in the shape of higher prices, but are rewarded by improved quality of service' (Andrews-Speed et al. 1999: 446).

One of the festering problems associated with power sector reform stems from the evaluation and solution of 'stranded costs'. The situation refers to the prospect that, as the ESI becomes more competitive, the assets of some utilities may become obsolete and they may not be able to earn enough to recover the costs of these investments. In other words, with competition and entry of new, low-cost generators, electricity prices tend to fall, and the older high-cost generators or suppliers are left unable to recover the cost of their plants or contracts. The unrecovered costs thus become stranded. Wide variation exists in the estimates of stranded costs, because of uncertainty of information. For example, the stranded-cost losses of the US ESI are estimated to range from \$ 10 billion to \$ 200 billion (Brennan et al. 1996: 100). The real issue is regarding its resolution: should the investors be forced to swallow these losses, or should these be transferred to the customers in higher retail prices? Stranded costs are said to have played a role in the Californian power crisis: under pressure from the big and politically powerful utilities, the state agreed to value

the assets built before deregulation much more generously and passed on a part of the costs to the new entrants (as well as to customers). Thus the new entrants have become severely handicapped to compete on price (*The Economist*, January 20, 2001: 58).

Another important source of concern is the impact of market reforms on environment. The blind profit-fetish of the private enterprise has always been at the target end of accusals of reckless corrosion of environment. Generation of electricity produces at least four forms of air pollution: (i) particulate matter (soot, dust, dirt, aerosols), (ii) sulphur dioxide (SO<sub>2</sub>), primarily responsible for acid rain, (iii) nitrogen dioxide (NO<sub>2</sub>, or in general nitrogen oxides, NO<sub>x</sub>), and (iv) greenhouse gases, especially carbon dioxide (CO<sub>2</sub>), mainly responsible for contributing to the greenhouse effect (global warming, a general increase in the temperature at the earth's surface).<sup>1</sup> However, evidences indicate that environmental effects of reforms are case-specific, and hence can be positive or negative, depending on the market circumstances. Much depends in turn on the types of electricity generation plant and fuel mix. In fact, the development of combined cycle gas turbine<sup>2</sup> (CCGT) technology, that has facilitated privatisation of generation sector, has demonstrated natural gas as a viable replacement generation fuel, more thermal efficient than coal, and less environment-detrimental (through decreased production of harmful emissions). For example, it can almost eliminate emissions of sulphur dioxide, and reduce considerably the emissions of oxides of nitrogen and carbon dioxide. Moreover, natural gas-fired plants produce no sludge or ash, thus averting problems of landfill availability and groundwater contamination. However, the problems associated with the discharge of warm water mixed with effluents back into the sea/lake/river still persist. The rise in temperature at the discharge point will affect the flora and fauna of the receiving waters. In the UK, natural gas has replaced coal as generation fuel to an extent of 30 per cent of the UK's electricity generation. However, where non-fossil fuels such as hydro and nuclear predominate the generation fuel mix, competition could result in increased use of fossil fuels for generation, if found economically more viable, with the consequent increase in

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<sup>1</sup> Particulate matter, besides affecting visibility and exposed surfaces, can create or intensify breathing and heart problems and lead to cancer. The smaller particles cause the most damage. Sulphur dioxide is a gas that may affect heart and lungs in ways similar to particulates. Moreover, it may damage trees and lead to acid rain, that harms lakes and streams and corrodes exposed materials (e.g., outsides of buildings). It is suspected that sulphuric acid and nitric acids may be produced from the sulphur dioxide and nitrogen oxides present in polluted air. Nitrogen dioxide is a brownish gas with adverse effects similar to those of sulphur dioxide. Besides, it can in the sunlight contribute to the formation of ground-level ozone (or smog), that causes respiratory problems and crop losses. Nitrogen dioxide (NO<sub>2</sub>) is produced when nitric oxide (NO) emitted from power plants combines with oxygen in the air. In general, discussions of nitrogen-based air pollution refer to nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>) together as nitrogen oxides (NO<sub>x</sub>). Nitrogen oxide emissions presently merit the most immediate policy attention.

<sup>2</sup> A combined cycle power plant is one that utilises the combined cycle technique for increasing substantially the conversion efficiency of using gas for electricity generation. The technique involves first using the gas to fuel a combustion turbine (or gas turbine, which uses the expansions of burnt gases to turn the turbine for power generation), and then recovering the waste (exhaust) heat to generate steam for application to a conventional steam turbine for further power generation.

greenhouse gas emissions. For example, a study by Hendry Lee and Negeen Darani of Harvard University in 1995 found that restructuring could lead to substantial rise in nitrogen oxide emissions: a 78 billion kWh increase in generation from existing coal facilities (two-thirds of which are assumed to be replacing generation from less-polluting plants and one-third of which is assumed to be supplying new demand) could lead to a 500,000 ton increase in nitrogen oxide emissions (Lee and Darani 1995). Another study by Dallas Burtraw and Karen Palmer of Resources for the Future in 1996 suggested that the amount of additional generation from existing coal-fired plants stimulated by restructuring could be substantially larger than Lee and Darani's estimate, depending in part on the rate of growth of transmission capacity (Burtraw and Palmer 1996).

The greatest lessons of power sector reforms come from the Californian experience in the US and the Enron experience in India. The first and one of the most ambitious deregulation plans in the US, the Californian experiment has, however, proved fatal to the interest of the public and the state, and has at last resulted in 're-regulation' by the government, all within five years. The Californian deregulation had in effect replaced a stable price system ensured through government regulation with a 'free' market of violently fluctuating prices influenced by a group of profiteering out-of-the-state generators. California with 50,000 MW capacity could have well met a 31,000 MW peak load, but 11,500 MW capacity went out of service due to unplanned outages<sup>3</sup> (Reddy 2001). Moreover, California could not add to its installed capacity during the last decade thanks to the toughest environmental laws and the 'not in my back yard' (NIMBY) syndrome among its public. The setting was ideal for the unscrupulous profiteers and the 'contrived' supply scarcity pushed the prices up without limit. The soaring wholesale prices<sup>4</sup> (e.g., reaching \$ 1.40 per unit) against a capped retail price (at \$ 0.066 per unit) plunged the supply utilities into the red (ibid.). As their credit ratings plummeted, generators refused to sell them power. Losses drove the state's two main utilities close to collapse. PG&E, the largest utility serving the northern part of the state, filed for bankruptcy protection on April 6, 2001. On April 9, government agreed to buy part of the transmission grid owned by the other major utility, SCE, for \$ 2.8 billion (in an effort to restore its

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<sup>3</sup> One of the significant factors that led to the crisis was the ban on long term contracts between the supply utilities and generators ('forward power'). Paul Joskow notes the consequences: 'If a generator has a long term contract, then the financial incentive is to generate steady power in order to maximise sales. If you have no contractual promises and there is a new price every day on a spot market, then your incentive is to withhold production to maximise price.' (quoted in Easterbrook 2001: 44). So it happened in California. Behind the artificial supply scarcity following 'massive plant outages', there was an encouraging factor too: the independent power generating companies owned by the out-of-state profiteers were not bound by the same legal obligations that governed the regulated utilities.

<sup>4</sup> The electricity spot market price, which was \$ 30 per megawatt-hour in 1998, went up as high as \$ 1500 on some days thereafter. It is reported that the phenomenal price rise resulted in some 'economic absurdities' also. Some of the big factories having long term low-priced power contracts found that they could make more money now by simply closing down and marketing their unused power allotment! For instance, The Kaiser Aluminium plant in Mead in Washington seized this opportunity and closed down the plant in November 2000, and began to sell the whole electricity, contracted from the Bonneville Power Administration at \$ 22.50 per megawatt-hour for the plant consumption, back to the same organisation at \$ 555 per megawatt-hour! (ibid.)

financial health through injection of cash). It should be added that cities like Los Angeles with publicly owned utilities that did not opt for deregulation has remained unaffected.

### **CALIFORNIA'S POWER CRISIS**

On January 16<sup>th</sup> [2001], the Californian state assembly passed a bill giving the state a central role in the local electricity market. This, in effect, turned the clock back on the deregulation of California's power industry begun in 1996 amid grand promises of reduced rates for consumers, and bigger markets for power companies. But in fact, the state had few options. On the same day, two of California's largest utilities had their debts reduced to junk by the leading credit agencies after one of them, Southern California Edison (SCE), announced that it would not be paying \$ 596 million due to creditors, in order to "preserve cash".

That undermined the ability of SCE and of Pacific Gas & Electric (PG & E), the other big utility in the state, to buy power on credit, and pushed them to the brink of bankruptcy. On the same day, a "stage 3" emergency was declared, the highest level of alert, called only when power reserves fall below 1.5 % of demand. On January 17<sup>th</sup>, one-hour black-outs rolled round the area of northern California served by PG & E. And Governor Gray Davis declared a state of emergency, authorising the state water department to buy power.

This is a dreadful mess for a state that is held up around the world as a model of innovation and dynamic markets, and that was the first in America to pursue deregulation.

- *The Economist* (January 20, 2001: 57)

However, the power crisis led to an active role of the FERC in 're-regulation'. In June 2001, it unanimously decided to impose price cap control on wholesale electricity prices in the whole western electricity grid (including California). It should be noted that the FERC had already put partial price caps on California, applicable only during emergencies. The new regulations extended these caps to all periods and throughout the western grid. And it just shows that all is not well with the deregulation bids.

### **3. Reform in the Indian Power sector**

Installed capacity in the Indian power sector, which was only 1564 MW in 1950-51, increased to 141,079.84 MW as on 31.01 2008, marking an annual compound growth rate of about 8.2 per

cent; and electricity generation increased from 5100 million units (MU) in 1950-51 to 586030 MU in 1997-98, at nearly 8.7 per cent growth rate. The per capita consumption of electricity, which was less than 15 units at Independence, rose to 631 units in 2005-06 at about 6.7 per cent growth rate. Among other growth indicators, the percentage of villages electrified increased from 1500 in 1947 to 474,928 (about 82 % of the total 579,000) in 2004. However, these apparent achievements appear trifle in relation to real requirements. Serious power shortages have been plaguing the country for a long time; in 1997-98, India faced a peaking shortage of about 11.3 per cent and energy shortage of about 8.1 per cent, and the situation worsened in the following years, the peaking shortage reaching 15.2 % in 2007-08 and energy shortage, 9 %. This chronic shortage situation has been the inevitable outcome of a cumulative decline in capacity addition in the power sector, explained by the compounded effects of an increasingly inadequate investment tempo and the inordinate, but avoidable, delays in project completion. Investment deficiency and inefficiency have thrived in both the segments of the sector – Central and State (as also private).

The deficiency syndrome has had behind it a long history of abuses and aberrations of public sector management dictums and dictates. The 1980 Report of the (Rajadhyaksha) Committee on Power had the following to remark on the inefficiency of the Indian power sector:

“Under the Electricity Supply Act, which regulates the operation of the SEBs, the Boards were not till recently specifically required to earn a return on the capital they use. A number of committees, of which particular mention should be made of, examined the working of the SEBs and recommended a gross return of 9.5 per cent (excluding electricity duty) on capital employed after providing for operating expenses and depreciation. However, when the statute was amended in 1978, although it was provided that Boards should earn a positive return, no specific figure was mentioned.

“In actual practice, however, the Boards are often regarded as promotional agencies to be used to subsidise different classes of consumers and with little or no control over their tariff policy. As a result, on the whole, the returns specified by the Venkataraman Committee have not been realised and on the contrary, large arrears of interest are due to the State Governments on the loans given by them to the SEBs...

“Besides low tariffs, the causes of the poor financial performance are the low operating efficiencies, high capital cost of projects due to long delays in construction and high overheads – mainly the result of heavy overstaffing. Although precise comparisons are not possible, the average employees per MW of installed capacity in India is 7, compared to 1.2 in the USA, 1.5 in Japan, and 1.7 in the UK. Within the country, the expenditure on salaries varies from 12 per cent to 40 per cent of the total income of the SEBs. Much of this overstaffing is due to SEBs being compelled under political pressures to take on people they do not need.

“The result of all this is that many of the Boards are wholly dependent upon the State Government even for meeting their normal operating expenses making it even more difficult for them to function as the autonomous bodies which they were set up to be.

“The weaknesses in the management of the utilities, in particular the SEBs, ... arise partly out of the desire of some State Governments to exert a high degree of day to day control on the operations of the Boards, and partly due to management culture, inherited from the bureaucratic style of functioning, that most SEBs had when they were Government Departments.” (Government of India 1980: 4)

Thus on the one hand, the SEBs remained cash-strapped and on the other, the conventional source of funding (i.e., the Government) unreasonably began to dry up. There was a steady deceleration over time in the Plan provisions to the power sector, leading to cumulative investment deficiency. And then to crown the worst, there descended before the sector an impasse out of the infamous fiscal crisis at the dawn of the 90s.

Confronted with the consequences of the Gulf war in a political flux of frequent changes in Government, India plunged into a deep balance of payments (BoP) crisis in the second half of 1990-91. As India's credit rating in international capital markets nose-dived, access to external capital borrowing narrowed and substantial capital flight occurred out of the country. In June 1991, despite a severe squeeze on imports, India wavered on the verge of a default on external debt obligations for the first time in her history. However, she survived the crisis, and she emerged unscathed, but with a new flag of ideological allegiance in her hand. She emerged enlightened “that the economy needed substantial reforms if the crisis was to be fully overcome”, and that “both the BoP problems which were building up over the past few years and the persistent inflationary pressure were the result of large budgetary fiscal deficits which characterised the economy year after year....A reversal of the trend of fiscal expansionism was essential to restore macroeconomic balance in the economy” (Government of India 1992: 11). The fiscal correction that followed the awakening meant still meagre provisions to an already starving power sector, designed on the premise that further investments required in the sector should be financed from internal resources. A system traditionally attuned to unaccountability and hence functionally sick and financially wreck, the SEBs thus left in the lurch by the Governments to fend for itself, had then only one way open before them – that leading to the private sector. But the domestic private sector remained meek and weak, *ergo*, the door was to be opened to the global agents. And the siege then started – the siege of power sector reforms!

In addition to the domestic compulsions, the move was facilitated by a most harmonious international environment, exuberant with examples and their emulation elsewhere of ‘big experiments’ with liberalism as in the UK under the Thatcherite privatisation regime, and with

deregulation, as in some parts of the USA. The eventful fall of the socialist bloc and the attendant resurrection of private enterprise drives added to this international enthusiasm. Yes, the whole world appeared in unison to go on a pilgrimage of private sectorisation. (The only powerful exception of the French ESI, still in the hands of the French Government, however, was conspicuous by its exclusion from this picture.)

There has been a universal unanimity in cognising and recognising these causative and promotional strains in the background of (power sector) reforms. However, a significant catalytic element in the whole process has been left unaccounted for in all the reviews of reforms initiatives – the role of the international financial agencies, viz., the World Bank and the IMF, which in fact has been so active that a ‘leftist’ interpretation of the reform process could identify these institutions as the prime mover. Any study of the power sector reforms would be incomplete and biased without a study of this aspect in its proper juxtaposition with others.

The soft loan facility, termed Structural Adjustment Loan (SAL), introduced by the World Bank in 1980, in the wake of the Chilean reforms initiative following severe financial crisis, was the forerunner of the reforms-facilitating financial aid. The SALs were designed to provide quick-dispersing soft loans to meet BoP crisis over a period of years in return for an agreed set of measures of structural adjustments in the economy. The timing of the provision of assistance was in perfect harmony with the requirements felt pinching across the developing world, as there emerged a global financial crunch that began to haunt each country in the South in vengeful turns. The funds-famished, but prodigal, Governments in no time seized the easy lease in full endorsement of the pedantic rendition of the wreck in terms of their conventional infatuation with the public sector. This has had an added advantage too – it has also opened up yet another source of finance to the Governments – through the sell out of public sector assets. In the face of such encouraging response to the Pied Piper during the 1980s, the Bank's original emphasis on the BoP gradually faded with a corresponding increase in the stress on ‘economy-wide program of reforms’ (Killick 1993: 69). Later on the Bank devised another facility, more viable and effective one, viz., sectoral adjustment loan that aims at piecemeal reforms processes. In September 1997, especially in the wake of Haryana's reform efforts in power sector, the Bank started to grant Adaptable Program Loans (APL), involving a series of loans intended to provide phased and sustained support for the loanee's long-term reform programmes. A number of financial agencies are there now in the market involved in sectoral reforms facilitating loan programs; e.g., IMF set up in 1986 the Structural Adjustment Facility, augmented at the end of 1987 by Enhanced Structural Adjustment Facility, with considerably greater resources.

#### **4. Indian Power Sector on the Reform Path**

As already explained, the capacity-deficient Indian power sector had the rude shock when confronted with the fiscal crisis begotten revelation that the conventional budgetary funds support for capital augmentation programs had dried up. The ill-ridden performance of the ESI had already left it penniless and penurious. The prospects of international aid also appeared dim and grim. The World Bank had (in 1989) stated that requests from ESIs in developing countries added up to \$100 billion per year against an availability of only about \$20 billion from multilateral sources (quoted in D'Sa, et al. 1999). The predicament thus posed had also its ready-made solution prominently decked on its cap – the private sector. But the Indian capital market, remaining in some infantilism, was too feeble and frail to support the sector and hence, the significance of the foreign sector. It was also hoped that there would be a side-benefit in respect of efficiency which remained at an unacceptably low level. This efficiency was thought to be improved through the oft-claimed better management and higher technical performance of the private sector.

The power sector reforms in India began in the 1990s when a number of incentives were offered to Independent Power Producers (IPPs) for investing in the power sector.

Key features of the power sector reform policy introduced starting 1991 were:

- (a) Private sector companies may build, own, and operate generating stations of any size and type (except nuclear).
- (b) Foreign equity is permitted in generation companies
- (c) A post-tax return on equity of 16 per cent at a plant load factor (PLF) of 68.5 per cent is guaranteed, based on a two-part tariff formula, which covers both fixed and variable costs.
- (d) Additional returns (of 10 to 12 percentage points) on equity allowed where the PLF exceeds 68.5 per cent.
- (e) Free repatriation of dividends and of interest on foreign equity and loans.
- (f) A five-year tax holiday for new generation and distribution companies.
- (g) Protection from exchange rate fluctuations.
- (h) Depreciation rates on plant and machinery have been increased.



- (i) Custom duty on imports of equipment has been reduced by 20 per cent.
- (j) A private power generator can sell power to anyone with the permission of the concerned State Government.

Subsequently, the Indian Electricity Act of 1910 and the electricity (Supply) Act of 1948 were amended in 1996 to enable the setting up of State and Central level electricity regulatory commissions. Each State and Union Territory was to set up an independent State Electricity Regulatory Commission (SERC) to deal with tariff fixation, that is, to determine the tariff for wholesale or retail sale of electricity and for the use of transmission facilities. Later on the GOI issued an ordinance which was later converted into an act in 1998 (The Electricity Regulatory Commission (ERC) Act, 1998), to enable the appointment of regulators at the national and state level. At the Centre, a Central Electricity Regulatory Commission (CERC) was set up (on 24 July 1998) to deal with all state-level appeals and inter-state power flows. Such commissions had already been set up in Orissa in 1996 and in Haryana in 1998 under state legislation. With the concurrence of the central Government, Andhra Pradesh passed a separate Regulatory and Restructuring Act in 1999, in line with the Orissa and Haryana acts. Due to the federal nature of our Constitution, the central government had decided that though it would pass an Electricity Regulatory Commission Act, it would not impose a restructuring model on any state by central legislation, and that it would only issue guidelines and model acts for the consideration of the states.

Since April 1, 1999, The Central Electricity Authority (CEA) has entrusted the CERC with the task of regulating power tariffs of central government power utilities, inter-state generating companies, and inter-state transmission tariffs. One of the important objectives of CERC is to improve operations in the power sector, by means of measures such as increased efficiency, large investments in the transmission and distribution (T & D) systems, time-of-day pricing, and power flow from surplus to deficit regions. Further, the central government or the CERC can grant a transmission license to anyone to construct, maintain, and operate any inter-state transmission system under the direction, control, and supervision of the central transmission utility.

In 2003 the Central Government introduced a new Act, which stands to replace the existing three Acts, that govern the power sector. The three Acts are the Indian Electricity Act, 1910, Indian Electricity (Supply) Act, 1948, and the recently enacted Electricity Regulatory Commissions Act, 1998, that together constituted the legal foundation for the power sector in India till now. Electricity Act, 2003 now replaced all these three Acts. The objective of the Act is supposed to introduce competition, protect consumers' interests and provide power for all. The Act provides for a National Electricity Policy, rural electrification, open access in transmission, phased open access in distribution, mandatory SERCs, license-free generation and distribution, power trading,

mandatory metering and stringent penalties for theft of electricity. The purported aim is to push the sector onto a trajectory of sound commercial growth and to enable the States and the Centre to move in harmony and coordination.

A very significant provision in the Act is that all the SEBs of present constitution will 'wither away' as the new Act comes into effect. This has since the introduction of the Bill in 2000 led to a very heated controversy. However, it is open to a State Government to set up its own SEB if it wants the existing system to continue. In fact, once the Electricity (Supply) Act, 1948 is done away with, the very existence of SEBs, the establishment of which was the objective of the Act, comes to a natural end. Now the State Government needs to reconstitute the SEB, if it so desires, through its own legal provision. At the same time, on the other side appears the fact that once the SEBs cease to exist following restructuring, then the very Electricity (Supply) Act of 1948 becomes redundant. Hence the significance of the replacement. Part 13 of the Act deals with the reorganization of the SEBs in detail.

The Act envisages time-bound radical restructuring in terms of unbundling and corporatization. All the States have to establish State Regulatory Commissions, authorised to supervise, direct and control all the activities in the ESI. This implies that the Government interference in the day to day affairs of the sector is minimized, though the Government is still allowed to wield significant powers. The Act also seeks to establish spot market for electricity through pooling arrangements. This necessitates setting up of an independent system operator (ISO) for transmission such that the 'wires business' becomes one of national dimension rather than of inter-State dimension. There is a threat, however, lurking in such development in that the concurrent, federal, nature of authority of the States on the ESI may soon be superseded by centralised, unitary, authority. The Act in fact gives an impression that the subject of electricity, instead of being in the Concurrent List, is in the Central List, with far too many rooms for centralization and standardization. Policies on all matters, namely, the national electricity policy and plan, and even the national policy on standalone systems for rural areas and non-conventional systems, and the national policy on electrification and local distribution in rural areas are all matters for formulation by the central government (section 3).

The Act also plans, in a bid to facilitate a level playing field for transmission sector participants (transmitters), to restrict the role of the Central Transmission Utility – PGCIL – to that of power grid management only, divesting it of the other role of being also a player in the transmission business. This is in the wake of a long-standing feud between PGCIL and the CERC over a directive issued by the CERC to the Power Grid in 1999 to operate its business and perform its role as a grid manager as separate autonomous business units. The earlier version of the Electricity Bill vested the regulatory control in the transmission sector with the PGCIL; however, the recent version (sixth draft) has restored (in line with the Electricity Amendment Act, 1998) the power to the CERC with some minor modification.

A major criticism levelled against the Act has been that there is not enough emphasis on rural electrification in the Act and that the Act actually over-emphasizes commercialization of power (in Part 7 of the Act) rather than making available power to everybody. The Act as such has caused much flutter and protest; many States (for example, Kerala) and SEB employees suspect the Central move as an attempt to usurp the State's authority on the power sector, and impose restructuring where the State is unwilling.

Before enactment of the Electricity Act, 2003, some of the States had enacted State Electricity Reforms Acts, which provided for reorganization of their State Electricity Boards (SEB). Section 172 (a) of the Electricity Act, 2003 provides that the SEB shall be deemed to be the State Transmission Utility (STU) and a licensee under the provisions of the Act for a period of one year from the appointed date, i.e. 10<sup>th</sup> June, 2003. However a SEB can continue for some more time as agreed to mutually by State and Central Government. Thus Kerala had obtained time upto 9 June 2004, which was then extended to September 9, 2008. Though this time also elapsed (though another 15 days extension was granted), the present LDF Government is by no means willing to surrender.

So far, 13 States have reorganized their SEBs. 10 States namely, Orissa, Haryana, Andhra Pradesh, Karnataka, Uttar Pradesh, Uttarakhand, Rajasthan, Delhi, Gujarat and Madhya Pradesh have done so under their State Electricity Reforms Acts. In Orissa, Delhi and Noida in UP power distribution was entirely privatized. Assam, Maharashtra and West Bengal (w.e.f. 1.4.2007) have reorganized their SEBs under the provisions of the Electricity Act, 2003. The SEB of Assam presently continues to discharge the licensee function only for trading of electricity. Government of Tripura has corporatized its electricity department. The remaining states of Bihar, Jharkhand, Kerala, Punjab, Chhattisgarh, Tamil Nadu, Meghalaya and Himachal Pradesh are in the process of formulating schemes for reorganisation of their SEBs.

The first move towards such reform process was initiated in Orissa, even before the formulation of the CERC at the Centre. Orissa Electricity Regulatory Commission was the first of its kind in the country, designed as an independent regulatory commission to regulate the power sector in the State. The World Bank has sanctioned a loan of 350 million dollars to Orissa for its power sector reforms.

Restructuring of the Orissa power sector started in 1996 with the enactment of the Orissa Reforms Act, 1995. The erstwhile vertically integrated utility of the Orissa SEB was unbundled into separate corporations – Grid Corporation of Orissa (GRIDCO) for transmission and distribution, and Orissa Hydro Power Corporation (OHPC) for hydel generation. Subsequently, four wholly owned subsidiary companies of GRIDCO were carved out for distribution, and later on these subsidiary companies were privatized by the sale of 51 per cent of the share of GRIDCO's equity

holding. BSES took over three companies (NESCO, WESCO, and SOUTHCO) in the north, west and south zones, and AES Corporation of USA, the central zone (CESCO). However, AES has later on backed out from the managerial responsibility of the company, and the CESCO is now administered by a government official. The Orissa Power Generation Corporation (OPGC) has been disinvested to the extent of 49 per cent.

The Electricity (Amendment) Act, 2007, amending certain provisions of the Electricity Act, 2003, was enacted on 29th May, 2007 and brought into force w.e.f. 15.06.2007. The main features of the Amendment Act are:

- (a) Central Government, jointly with State Governments, to endeavour to provide access to electricity to all areas including villages and hamlets through rural electricity infrastructure and electrification of households.
- (b) No License required for sale from captive units.
- (c) Deletion of the provisions for elimination of cross subsidies. The provisions for reduction of cross subsidies would continue.
- (d) Definition of theft expanded to cover use of tampered meters and use for unauthorized purpose. Theft made explicitly cognizable and non-bailable.

## **5. Power Sector Reforms in Kerala**

The waves of power sector reforms that have swept the world over and some parts of India as well had left only moderate imprints till recently in Kerala's power sector. It was acknowledged in the previous state government's electric power policy of 1998 (the first of its kind in Kerala!) that the huge capital investment required in the power sector imposes heavy burden on the KSEB with its weaker financial standing. During the 9<sup>th</sup> Plan period (1997-2002) projects in the three sectors of generation, transmission, and distribution involve about Rs. 4380 crores, of which only Rs. 350.06 crores can be had from the internal resource generation of the KSEB, provided tariffs are revised regularly, and Rs. 735.51 crores from the State government as loans, leaving the KSEB to rely heavily on the financial institutions (FIs) for the remaining resources. If tariffs are not regularly revised or arrears in revenue collections build up, the borrowings will have to be more. Given the financial status of the Board and its track record, it is found doubtful if external loans of this order can be raised. The situation is thus made ripe for some attempts on reforms.

**From the Power Policy of Kerala Government, 1998**

Ensuring financial viability through improvement in operational efficiency and cultivating good relationship with customers by avoiding activities that leave them dissatisfied – these two objectives should be realised by the Board, along with power self-sufficiency by 2000 AD. More focus should be placed on consumer-service areas and a development-service oriented and energetic work culture should be cultivated in the Board.

It should be strictly enforced that regular and timely meter reading, billing and revenue collection be ensured. The spot billing procedure at present in force in 67 sections would be gradually extended to other sections. Suitable measures would be taken to solve the problems/difficulties of the customers in the present system of payment of electricity charges.

A large number of three-phase meters and single phase meters remain defective, causing substantial revenue loss to the Board. A phased program of replacing them with electronic meters would be implemented. Further replacement would be the responsibility of the customer himself. With the new connections, it would be the responsibility of the customer to buy meter. The Government would also take effective measures, besides those by the Board, to check power theft, illegal drawal, etc. More number of anti-power theft squads would be organised. Special squads to watch the HT – EHT customers would be deployed. Vigilance department would be strengthened.

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The power sector in Kerala is entering through this policy into a long and difficult action program that would lend a new direction to development ventures and thus ensure liberation from power crisis for ever. The success of this action program depends upon the collective cooperation of the people, workers, officers, and capital investors. And the Government is sure that the people, forgetting all differences, would stand united in this save-Kerala effort.

The E. Balanandan Committee to Study the Development of Electricity in Kerala (1997) recommended to set up a government-owned company viz., The Kerala Power Development and Finance Corporation Ltd., to develop, finance, and manage generation of electricity, construction and installation of power stations and transmission lines in Kerala.<sup>5</sup> The Task

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<sup>5</sup> This reminds one of a phoenix, rising from the ashes (read: heaps of dust of neglect and negligence) of a 1984 study by a group of well-wishing KSEB engineers entitled 'A Decade Plan to Make Kerala Self-Sufficient in Electricity Generation up to AD 2000'. Following the example of the Karnataka Power Corporation set up way back in 1970 by

Force on Policy Issues Relating to Power Sector and Power Sector Reforms (1997) and the Expert (under K. P. Rao) Committee to Review the Tariff Structure of the KSEB (1998), both constituted by the State Planning Board, provided detailed discussion on reforms processes that to a great extent reflects the present Government's ideological prejudice and political compulsions.

In the State's electric power policy, it was clearly stated that the (then Marxist Party-led) government had no intention of unbundling or of privatizing the SEB. The suggestion to corporatise the three divisions of generation, transmission, and distribution was also rejected. However, it was acknowledged that there should be significant changes in the structure and approach of the Board. The Task Force had, *inter alia*, stressed that a major change in the work culture in KSEB be required to eliminate the inefficiency inherent in it at present and recommended that as a first step in this direction, the three operations under its control, viz., generation, transmission and distribution, be compartmentalised and made as profit centres, fully accountable for the results. This arrangement was expected to facilitate the relative efficiencies in each sector and enable KSEB to take corrective actions more effectively.

The then government accordingly initiated necessary steps to restructure the functioning of the Board in terms of 'profit centres' at the levels of generation, transmission, and distribution; three regional profit centres with head quarters at Thiruvananthapuram, Ernakulam, and Kozhikode also were established. These regional centres would have the control over the electricity supply in the State. The profit centres would have wide autonomous powers in decision making in several areas including capital investment, resource generation, appointments of personnel and so on.

Though the government promised all the help and cooperation to the IPPs, only two projects (one mini hydro power project of 12 MW at Maniyar owned by Tata Tea Estate, and a thermal project at Kochi of 160 MW under the ownership of BSES and KSIDC) have so far been commissioned in the private sector. In 1997, the then government proposed some ambitious plans<sup>6</sup> to set up power

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the Karnataka SEB, these engineers suggested to form a holding company with a share capital of about Rs. 400 million for power generation in Kerala; the idea was to lessen the financial burden on the KSEB of power development and thus to improve the power supply situation. Detailed plans on a number of hydro power projects to be undertaken by the corporation during the next 20 years were included in the proposal. Thanks to the far more politically conscious trade unions in Kerala, however, the study was simply shelved away by the Government, that too during the 'unprecedented' power crisis period! That was the Kerala model of power development!

<sup>6</sup> The State Government signed PPA for six proposed projects with a total capacity of 2175 MW to generate 15378 MU on a tentative cost of Rs. 6529 crores with Siasen Energy Ltd., Wise Ltd., New Delhi, Kasargod Power Corporation, Finolec cables, Mumbai, and Kumar Energy Corporation. Besides, MoUs were signed with three companies, BPL Ltd., KPP Nambiar Associates and EDC International, Bangalore, for setting up power plants in Chimeni in Kannur and Manakara in Palakkad with a total IC of 1330 MW at a tentative cost of Rs. 4523 crores to generate about 8000 MU. All these projects except one were to use Naphtha as fuel. In addition, in the public sector, a 500 MW power project was proposed by Kochi Refineries Ltd., using residual fuel, at a tentative cost of Rs. 2000 crores; 10 KSIDC-sponsored schemes using naphtha with a total capacity of 300 MW, and two diesel plants with a

projects in the private and public sectors within 5 years, with a total IC of 5041 MW (including the BSES, NTPC and the KSEB's own thermal projects, works on which had already started that time). However, the fate of these projects, other than those mentioned above, is still not known. Despite the professed commitments and colourful plans, the required firm political will and sense of responsibility to value common good above everything else is conspicuously missing in our Governments. The so-called 'Kannur-Ennore' controversy during the late 1990s was an apt example in point here.

The MoU for a 513 MW combined cycle power project at Kannur at an estimated cost of Rs. 1500 crores was signed in February 1995 by the KSEB and the KPP Nambiar and Associates. It was one of the nine mega projects cleared by the High Power Committee (at the Centre) in 1995, when a Congress-led Government was in power in Kerala. The power purchase agreement (PPA) was signed on March 14, next year, and by the end of 1997, the Kannur project was accorded techno-economic clearance (TEC) by the CEA. But the project was an ill-starter. The new left Government in Kerala could not tolerate the Enron co-sponsorship of the project and hence rejected the State clearance to the project. However, after some dilly dallying, the Government agreed to clear the project (the Chairman of the company being a close relative of the Chief Minister!) provided it found a new co-developer acceptable to the State Government. Thus a new Kannur Project was then recommended by the State Government with the El Paso Energy International of the US as the co-promoter. Kannur power project was one of the three projects in the power sector (including the NTPC-Birla sponsored 1886 MW Ennore power project in Tamil Nadu with 100 per cent foreign (US) participation) identified by the Union Government to be presented at the Indo-US summit in Washington to attract US investment to India during the recent visit by the Indian Prime Minister there. But the State Electricity Minister called the joint secretary in the Union Power Department, on the eve of the PM's visit to the US and said, "We have decided in favour of Ennore and not Kannur" (*The New Indian Express daily*, September 20, 2000). The Kannur project has been pictured as the most recent victim of inner party factional frictions as well as unrequited kickback demands (*The New Indian Express*, September 28, 2000). The Chairman of the company himself has later on come out and reported to the Press of the kickback demands for Rs. 75 crores by the son of a political bigwig controlling the government. The El Paso co-sponsorship of the project also has been rejected by the government.

The previous (Congress Party-led) state government, however, decided to swim along with the current, by joining the group of other states in the country already engaged in radical power sector

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total capacity of 24 MW, to be jointly set up by Kerala Infrastructure Development Corporation (Kinfra) and Kerala Electricals Ltd., were also under consideration. The tentative investment on the State public sector projects was Rs. 972 crores. KSEB, on its part, proposed small thermal units in substations and 48 small hydro projects with a total capacity of 312 MW at an estimated cost of Rs. 675 crores. And all these ambitious plans were to add to the system an IC of 5041 MW (to generate 26371 MU) at a tentative cost of Rs. 15549 crores. (*The Hindu Business Line*, September 29, 2000). Like all ambitious plans, these too still lie on paper.

### **A big 'NO' to Unbundling and Privatisation**

Restructuring is being considered [now in India] mainly because the SEBs are operating at loss and are not in a position to meet the electricity demand and are also considered inefficient with high T&D losses and KSEB is no exception. At the same time, the factors that have led the SEBs into this situation, which are quite well known, have not been removed and no attempt has been made in that direction. ....The Task Force is of the view that before contemplating any restructuring, which becomes irreversible, it is to be examined whether the present sickness can be remedied without any drastic surgery by removing the problems that cause the sickness. It is to be stressed that the problems that may arise consequent to restructuring could be more severe than the existing ones, particularly when a large and complex organisation like KSEB is unbundled and split into several units.....

Electric utility, unlike other engineering industries, requires perfect and total coordination between generation and T&D. A composite organization is suited best for this purpose. Financial assistance is likely to be extended to KSEB from banks and financial institutions including international agencies in case its balance sheet is healthy, which is possible only if it is permitted to follow a rational and sound tariff policy.

The Task Force noted that the utilities, by tradition and practice, are a natural monopoly and there can never be a competitive situation vis-a-vis the consumer. This is for the reason that the consumer has no option to choose from more than one source providing the utility service. The Task Force is of the view that if there were to be a monopolistic situation, Government monopoly, which is subject to Government control keeping in view the social objective, is far more preferable than a private monopoly where commercial or profit making interests prevail over other considerations. The Task Force, accordingly, strongly recommends against privatisation of transmission and distribution activities.

(Executive Summary of the Report  
of the Task Force on Policy Issues Relating to Power Sector and Power  
Sector Reforms)

reforms at the terms and conditions of the central government; in August 2001, Kerala signed a memorandum of understanding (MoU) with the Union power ministry, expressing its willingness



to undertake power sector reforms. As per the MoU, the KSEB was to be run on commercial lines and also to securitise all its dues to the central public sector undertakings (CPSUs). Such securitisation implied that the KSEB ensured that CPSU outstandings never cross the limit of two months' billing. And in return for its commitments, the state would be provided by the central government with funds from the Accelerated Power Development Programme (APDP) for renovation and modernisation of thermal and hydro plants of the state and for improvement of sub-transmission and distribution and metering in the identified circles in the state. The MoU required the state government to 'desegregate' the KSEB to make it accountable in respect of its functions of generation, transmission and distribution; accordingly, the KSEB was divided into three 'independent profit centres' having separate administrative set up and accounts in April 2002. The State Electricity Regulatory Commission, with 3 members, also was set up in November 2002.

The previous political leadership in Kerala, with an ideological adherence to liberalisation, was fast committed to large scale economic restructuring of the State. As we will see below, the irresistible temptations of the soft loan facilities, tied to restructuring packages, and the attended openings for big corruption deals explain the political economy of the drives. The earlier developments whereby the State Government has stood mortgaged to the Asian Development Bank (ADB) in respect of such a scheme have already stirred the radical conscience of the State in a fume of protest. It must be noted that one of the major conditionalities of the ADB loan pertained to the complete restructuring of the power sector with possible privatisation of the distribution circles in the state. Though the Government had to backtrack, in the face of stiff resistance by the public at large, on its initial attempt at a steep tariff hike under the ADB direction, it did succeed later on in implementing a moderate tariff revision, confirming that a phased tariff revision could lead to the ADB-set desirable level. And the Government was determined to impose on the people that which has so far been a radical anathema to them. In this background, it is worth looking into the claims of reforms as *the panacea*.

## **6. Is Structural Reform *the Panacea*?**

Both the task Force on Power Sector reforms (1997) and the Expert Committee to Review the Tariff structure of the KSEB (1998) have “strongly cautioned that hasty decisions in this respect would lead to irreversible actions which could lead to many unforeseen problems. Besides, it does not help to resolve the problems faced by the Board of inadequate tariffs, internal resources and liquidity.” (Report of the (KP Rao) Expert Committee: Government of Kerala 1998). The present Government of Kerala, with professed leftist leanings, seems to explicitly endorse this view. Apart from this “disastrous irreversibility” premise, the very logic of the power sector reform process stands helplessly vulnerable to multiple points of weaknesses,

much of this facet, however, remaining outside the plane of informed debate. Here we take up some of them.

As explained above, private sector participation had been solicited on account of the fiscal crisis begotten funds scarcity. But this very fiscal crisis, obvious to any open eyes, has been due to the Government's inability to raise the revenue receipts and/or to reduce revenue expenditures. Instead, the axe has fallen on the capital expenditures, at the cost of development; and these savings, in a reverse logic of necessity, have begun to contribute to the revenue account<sup>7</sup> – such is the public finance management of our Governments! Still worse, it is the developmental expenditures in both the accounts<sup>8</sup> that have suffered the most, again in a perverse logic. This stands to ridicule all the blab of financial discipline raised in the face of the so-called fiscal crisis. As explained elsewhere in this Report, the crisis, under the tutelage of the World Bank, awakened the Government to the prescription of identifying fiscal stability of the economy with very low level of fiscal deficit. This in turn implied strict measures of financial discipline through severe expenditure cuts. But, the guillotine descended on the wrong heads – of developmental/capital expenditures, while profligacy stood to fatten the non-developmental/revenue expenditures, leaving the fiscal deficit, the alleged prime mover of crisis, without any perceptible change, even in the face of increasing capital account surplus, achieved through capital expenditure cuts ! If so, if it was not for translating any effect on to the crisis-breeding deficit, then one naturally tends to doubt the genuineness of all the fuss and justification of all the initiatives. Indeed, there seems to have been some snag in it. And it is to be seen in the effects of a combination of three forces – the two indigenous factors of the political economy of corruption and of hypocrisy in company with the exogenous World Bank hegemony.

The much-coloured 'fiscal crisis' of balance of payments shortage of 1990-91 came in handy for the World Bank to dictate conditions of 'economy-wide structural adjustments' or 'reforms' in return for soft loans provided for tidying over the shortage problem (ballooned into a 'crisis'). The prescriptive measure of fiscal deficit reduction had a built-in effect of increasing external dependency and thus submission. Here the World Bank rose to the occasion and exhorted, besides imposing the structural adjustment loans, that the Government relieve itself of the financial crunch by reducing its role to a facilitator only, instead of being as hitherto a provider. Selling out public sector assets, accordingly, yielded two birds at a stroke – relief from public

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<sup>7</sup> Thus the revenue account has always been in the red, the deficit often shooting up at stupendous rates, for example, in 1993-94, the Central revenue account deficit grew by more than 83 per cent over the previous year, and in 1997-98, by more than 30 per cent. On the other hand, the capital account has been made to register surplus since 1990-91, by cutting capital expenditure drastically relative to receipts; in 1993-94, the Central capital account surplus increased about four-fold over the previous year, and in 1997-98, about 2.25 times !

<sup>8</sup> In the revenue account, the developmental expenditures fell from about 55 per cent in 1980-81 to about 49 per cent in the late nineties, and in the capital account, from about 39 per cent to around 30 per cent respectively.

sector management burden and substantial funds. The offer of soft loans and the option of public sector divestment were powerful enough to lure the political economy of corruption, while the populist sentiments pampered by the religion of hypocrisy, and Governmental profligacy<sup>9</sup> dared not to touch revenue expenditures. And the price was paid from the capital/developmental account. The logical culmination of such a situation was the cultivated perception that the Government was left with no money. Now the responsibility for developmental investments naturally devolved upon the private sector, making the World Bank approach easier. But the domestic private sector remaining not so strong, the door was to be opened to the foreign capital. This dynamics should have served as a frame of reference in any informed debate on interpretations and implications of the so-called reforms move in India. Unfortunately, however, this has not been so, so far.

The funds scarcity proposition is still weaker on another potential score also. Sadly enough, very few eyes have been open to the folly of the fiscal deficit = instability equation setting economics of the World Bank. This might be true in a Keynesian set up of an advanced economy where aggregate demand and effective demand coincide, leaving an inflammable situation for additional finance unaccompanied by additional output. On the other hand, in a less developed economy of poor majority with low purchasing power, which in turn means over-production or equivalently, under-utilization of capacity, pump-priming serves only to boost the economy. However, the main thrust of our point here is that despite the World Bank compulsion, deficit financing still continues in India as before, but now only for revenue expenditures; this is in addition to fiscal incentives through tax reductions. At the same time, large cuts in capital expenditures also are effected; and this situation has been capable of fuelling inflationary flames in the World Bank economics sense, though inflation in India remains (at least in the official claims) in the manageable reach only. Such a particular situation of an insensitive inflationary mechanism<sup>10</sup> in force in India, however, has been sadly missed by many intellectual eyes and the Government too. Thus the Government, if found itself still comfortable with deficit spending, should have, as is truly expected, drawn rein on revenue expenditures, and effected that fiscal financing for developmental purposes, which would necessarily have averted the dependency problem, and along with it the painful chaos of present 'reforms'.

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<sup>9</sup> Over the high-pitched clamour for financial austerity, loom large the ever-increasing 'jumbo-size' Cabinets and the attendant lackeys both at the Centre and in the States, squandering public money at will. In fact, the introduction and institution of Panchayat Raj governance serves only to decentralise such official profligacy and corruption with wider nets. Added to this is the populist extravaganza such as, for example, the recent freebies (free telephone facilities) from the Telecom Minister to all his Department employees ! And still the Government has no money for the most important power sector investments !

<sup>10</sup> It should be noted here that inflation in India in general seems to have been to a good extent Government-sponsored, through administrative price hikes and their spread effects (Pillai, 1995). The almost non-significance of Keynesian or Monetarist inflation in Indian economy, thus, needs a careful analysis.

However, this would be only a partial solution. The real resolution should have emanated from the Electricity Board itself with an active spur from the Government. The Board should have been functionally efficient and financially sufficient to meet all its requirements. There is no inviolable destiny or curse that public sector be inefficient. A large number of living examples do shatter this myth (though it still reigns supreme over a large terrain of social consciousness). Kerala herself has enjoyed a golden era in respect of FACT under an able management. In power sector, Maharashtra SEB had been consistently performing efficiently for a long time till the entry of Enron. In the Central sector, the NTPC has won laurels for its top performance.<sup>11</sup> The NTPC, accounting for about 25 per cent of India's total power generation with an IC of about 20 per cent, is the World's sixth largest thermal power generator and second most efficient, according to a survey by Datamonitor of the UK (based on 1998 performance data). Given a conducive environment for a committed management, the Electricity Board could have fared better true to its guiding principles of a commercial-cum-service organisation, as interpreted by almost all the Committees. But the socio-political populist compulsions of the Governments could not honour and ensure its statutory status of an autonomous corporation (as required by the Electricity (Supply) Act of 1948), and they found in it a cornucopia for their immediate gains through subsidised tariff, heavy rural electrification, and employment generation on one hand, and corruption on the other. Had the Government compensated the Board for all the populist favours then and there, at least its balance sheet would not have run into the red. And all these have never been unknown to any one, and Committees after Committees have echoed in vain the same tone. However, the Government could by no means simply forgo this easy but powerful vehicle that it was using for translating populist baits into its own immediate gains and the forced conversion of the Board into a Government department prevailed.<sup>12</sup> It is the weight of this compound of corruption and hypocrisy that in fact restrains some of the State Governments, with ideological assertions coloured in populism, from openly supporting the reform moves.

A legitimate question might crop up now: Why did some Governments then decide to forgo this cornucopia ? The answer must be clear in terms of the political economy of corruption on a large scale of favouritism and kickbacks in reaching agreements with private parties, besides the

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<sup>11</sup> "The NTPC was founded in 1976, and was pioneer in India in developing well conceived and documented systems and procedures for construction of power plants in record time and thereafter operating the plant at record PLF. It is therefore not surprising that NTPC annually added almost 1030 MW of new capacity in the first decade (1980-92) of its operation at a difficult period of the economy. It also had the distinction of achieving record annual new capacity additions of 2410 MW in 1987-88 and an average of more than 2000 MW new capacity additions in two consecutive years thereafter." (*Business Standard*, September 22, 2000)

<sup>12</sup> Again it should not be misconstrued that a Government department per se is fated to be inefficient. It is the inefficiency, in terms of lethargy, incompetence, non-commitment and what not, of the powers that be that is reflected through the department.

lure of soft loans from different agencies, made possible in the wake of the reforms.<sup>13</sup> Kickback rule has become an integral part of private sector participation in power sector explicitly ever since the Enron controversy. The tendency has been to allow the kickbacks to be included in the capital cost such that exorbitant marginal capacity cost is thrust upon the system.<sup>14</sup> The proposal for introducing marginal cost pricing regime should be necessarily debated in this light: Should the society be burdened with such inflated marginal capital costs in the guise of 'efficient' prices? And as we know, this corruption-push is only one frequency band in the wide spectrum of the cost-inflation. It is not fair for a 'welfare State' to yield to the tendency to put all its inefficiency upon the public, branding it as socially efficient costs, though it might be in line with its religion of hypocrisy. This will unfortunately lead to an undesirable exclusion of the entire poor from access to light, that even the 50 years of populism could not bring to them. In fact, one of the serious concerns raised in the context of reform exercises is regarding the rural access to electricity, which the 1948 Electricity (Supply) Act stood to guarantee. It is a well known fact, confirmed by many a survey, that the unelectrified households in general belong to the poor of the society – an ironical reflection of the Government commitment. Given the highly skewed income/assets distribution set-up in our country, then, the so called reforms with its intended functional structure of market orientation (manipulated by private interests of profit- and rent-seeking of all hues that now never coincide with social interests – gone are the reconciling days of Adam Smith!) would stand to darken the still dark alleys of the poor section. While the Government is too eager to shirk its fundamental social responsibility of subsidising the poor, under the chastisement of the World Bank and its indigenous pedants, all these parties involved very conveniently forget that 'subsidy' is not a Third World phenomenon only.

Another important aspect thus apparently winked at should also be highlighted. The much taunted investment incapacity of the SEBs has been the prime leverage in justification for the private sector participation (PSP) in the power sector. However, the SEBs being the major (if

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<sup>13</sup> There have been allegations of corruption against the present leftist Government in appointing a Canadian firm as consultants in power sector matters in Kerala, in return for a Canadian loan. The same firm was given the contract for Kuttiady extension works which the firm subcontracted to some other local contractors! The works, started in 1996 and expected to be completed within 3 years are still on, the power station still remaining shut down! The Government has, however, allowed time extension and also sanctioned the demanded cost overruns to the Canadian contractor! The Canadian consultants have also been given extension with hefty payments in fees! Again, the KSEB awarded the maintenance works of Panniar and Sengulam projects to the same Canadian company, ignoring the recommendation of a panel (headed by E. Balanandan) that it should not be given to this firm (*The New Indian Express*, 24 September 2000).

<sup>14</sup> Enron's original Dabhol Power Project (Phase I) reported a capital cost of Rs. 4.48 crore per MW, whereas an indigenous NTPC project of similar type cost about Rs. 3 crore per MW that time. Enron's cost was higher by about Rs. one crore per MW than that of a large number of IPPs for which MoUs were signed around 1995 (see Morris 1996). The recent kickback controversy kicked up in connection with the ministerial shelving away of a private (Kannur) power project in Kerala itself is a powerful example of the corruption potential of this area. The situation appears even more dangerously grim when one finds that this comes from a (self-styled) leftist Government.

not sole) purchaser of power from the IPPs, the fear of payment default tends to strike at the very root of the PSP program, and this in turn necessitates that the SEBs be financially healthy to provide an escrow cover for the purchase. This circularity argument just nullifies the very PSP logic; if the SEB can afford to buy power from the IPPs (that too at higher prices<sup>15</sup>), then why cannot it afford to have its own generation facilities (at lower costs)?

That the power sector has problems galore as the Pandora's box of reforms is opened goes without saying. As explained elsewhere, the terms and conditions of power purchase agreement (PPA) for the IPP's 'must run' base load plants adversely affects the merit order operation of the power system, thus causing systemic inefficiency. The higher capital costs and the consequent higher tariff rates result in exclusion of the majority of the poor from the 'market'. Moreover, the inescapable problems involved in the irreversible restructuring/dismantling of a complex organization, as far as the experience of the Orissa experiment proves, might lead one to doubt whether these problems are not an exorbitant cost to compensate the original problems that the restructuring was supposed to tackle. Quite disheartening are the reports, on the power sector management health (or even its survival itself), from Orissa, where the World Bank model has fulfilled its full mission in terms of achieving unbundling and privatisation. Both the State and the Central Governments have been injecting heavy doses of finance in frantic attempts to rescue the system from imminent collapse, while the international Chief Surgeon has just backed out after the initial incisions, requiring the domestic surgeons to do what they can to complete the operation! While the Governments are too eager to let out any signals of a wrong turn during the course of such a drastic surgery, one would wonder why these Governments could not apply a little of this wisdom and sincerity during the previous phase.

Orissa and Delhi (along with Noida in UP) are the only reforming States where distribution sector (also) is privatised; and the move is on in this direction in other reforming States of Karnataka, AP, and Haryana also. It is generally recognised that distribution is the weakest link in the whole structure of power supply system. The massive leakage from this inefficient outlet in the form of subsidised sales and distribution loss, including technical loss and theft, illegal drawal, etc., under protective patronage, have been steadily sapping the SEBs, thus taking them to a no-return point of forced reforms. Plugging such leakage thus constitutes the urgent remedy for all the problems. And a general perception in the informed circle endorses immediate privatisation of the distribution sector projected as the only way out (for example, see Morris 2000). Tackling such leakage in

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<sup>15</sup> The high capital cost includes, besides the back-door payments, high returns, to the tune of 16 per cent, on capital also. There have been criticisms from the SEB-circle itself that while the IPPs and even the Central sector generating projects are allowed 16 per cent on equity (in addition to highly attractive incentives), the SEBs are severely constrained by the Governments even in matters of earning the stipulated 3 per cent return. K.P. Rao Committee recommends that the SEB be allowed 16 per cent return to provide "a level playing ground" for it (Government of Kerala 1998b:30). It is an irony that while the IPPs are allowed entry on the plea that it (this situation) vis-à-vis SEB increase competition and hence efficiency, the SEB still remains constrained as a Government department, without having a free, level playing field!

many rural/suburban areas involves a law and order dimension as well, and a populist Government, so far in the habit of winking at (if not abetting) such criminal errancy, finds it difficult to come out on the front. The Government saves its face by leaving everything to the private sector. Thus the private distribution company in Orissa, “the AES of USA is having to employ goon gangs to install meters”, and to collect the dues (*The Hindu Business Line*, March 31, 2000). See how easy the problem is solved! A blatant sell-out of governmental obligations!<sup>16</sup>

It is not that there is no alternative to such suicidal sell-out. There have been some informed suggestions on setting up cooperatives at local levels and entrusting them or the local bodies themselves with distribution responsibilities. For example, the Task Force constituted by the State Planning Board on policy issues relating to power sector and power sector reforms cites the good examples of Hukkeri Cooperative in Karnatake and Trissur Municipality in Kerala. The former is one among the 38 cooperatives in the country set up as conceived by the Rural Electrification Corporation. Power is supplied to these cooperatives at tariffs below the standard bulk rates such as to enable them to operate with a surplus. In Trissur Municipality area, a licensee under the control of the Municipality is engaged in electricity distribution in a very satisfactory manner. A number of countries have such alternative arrangements functioning efficiently.<sup>17</sup>

All this should not be misconstrued, let us reiterate, as an unreasonable justification for the persistence of avoidable inefficiency in the performance of the SEBs. As we have shown elsewhere, the inefficiency problems are only internal to the system. There do remain rooms for remedial exercises meant to remove these problems inhibiting the SEBs’ improved performance. That is, what the system requires is only an essence-specific (internal) reform – a reformed work culture under the leadership of an enlightened, committed, professional management and Government should flourish and further – not a disastrous structural reform, as is fetishistically made out now.

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<sup>16</sup> In this regard, one would be reminded of a recent Supreme Court verdict in another context (Dr. Rajkumar kidnap case) that if a Government cannot tackle a problem with a firm political will and iron hand, wherever and whenever required, cannot be a Government de jure and should bow out of office.

<sup>17</sup> It is reported that the National Rural Electric Cooperatives Association (NRECA) of USA is engaged in helping to form small cooperatives of consumers in villages and to transfer rights of distribution and transmission of electricity to them. This experiment has been a big success in Bangladesh and Costa Rica in recent times, and previously in the US also. In Bangladesh, the NRECA has helped to form 50 cooperatives serving 2.6 million metres. It has registered collection of nearly 97 per cent of billing. The growth rate also is impressive – some 1000 connections are added every day! (*Business Standard*, April 21, 2000).

### *The Lessons from Orissa*

Four years after the Orissa Government began experimenting with reforms in the power sector under the guidance of the World Bank, Gridco, the State-owned transmission company got crippled by a massive debt-servicing burden. The transition process had involved valuation, apportioning and adjustments of assets and liabilities. Adjustment of subsidies and electricity charges, totalling Rs. 340 crores, payable to OSEB/GRIDCO against the upvalued amount of Rs. 1194 crores, cast a heavy strain on the finances of GRIDCO. Moreover, a major proportion of past losses and overdue liabilities were retained by GRIDCO with a view to successful privatisation of the distribution companies. The four distribution companies were assigned only the project related liabilities totalling Rs. 630 crores, while GRIDCO retained liabilities totalling Rs. 1950 crores. In addition, GRIDCO issued Rs. 253 crore worth of shares and Rs. 400 crore worth zero coupon bonds to the State Government. All these left GRIDCO heavily cash-strapped and forced to default to generating companies and other suppliers. As on March 31, 2000, it had outstanding loans of Rs. 2714.5 crores payable to financial institutions, the public and the World Bank, and dues amounting to Rs. 1160.4 crores on account of power purchased from the generating agencies. And Gridco had to be bailed out with a massive financial restructuring package by the government itself. And this higher burden has already been manifested in the form of steep hikes in energy tariff; a number of studies have come out on its inevitable fall out: drastic fall in the number of consumers especially in rural areas. Evidently, exclusion is inevitable in a market-driven system! And whither our ideals enshrined in the Electricity Supply Act of 1948!

All was not well with the private distribution companies also. The American company, AES, backed out very soon, leading to the collapse of CESCO. Following this a high level committee headed by Sovan Kunango, IAS (Retd) was set up by the government of Orissa. The Kunango Committee Report, submitted in October 2001, is a damning indictment of both the privatisation process and the private companies. Here are some of the major conclusions of Kunango Committee:

- (a) GRIDCO's debt burden increased from Rs 820 crores to Rs 3300 crores.
- (b) The privatisation process should have been a sequential one by which errors in privatisation of one DISTCO could have led to avoidance of such errors in other zones.
- (c) The private DISTCO neither brought in superior management skills nor working capital.
- (d) The privatised DISTCOs working capital consisted of defaulting on payments to the state-owned Gridco. Gridco's "generosity" allowed them to pile up huge arrears (estimated at Rs 1,000 crore); AES arrears alone amounted to Rs 403 crore.
- (e) The quality of management skills and personnel brought in by the private companies was poor.



- (f) Billing and collection efficiency under the privatised DISTCOs actually worsened; from billing and collection efficiency of 84 per cent, it went down to 77 per cent. Rampant theft continued unabated.
- (g) There was a steep increase in tariff (an annual increase of 15 % for the last 9 years) without reduction of techno-commercial losses or improvements in consumer service. Despite the tariff rise, the power sector runs in a revenue loss of Rs 400 crores a year.
- (h) There was complete neglect of maintenance as shown by much lower expenditure under this head compared to all other heads where expenditure grew by leaps and bounds.
- (i) Huge amounts (as much as Rs 300 crores) were taken out of these companies as consultancy fees by foreign firms.
- (j) T&D losses did not show any improvement and remained at 45 per cent (pre-restructuring period loss figure).

The conclusion of the report was that the power utilities would not break even in Orissa even if the retail tariff goes up from its current figure of Rs 2.81 per unit to Rs 4.32 per unit. It should be noted that the tariff for the year 1993-94 was only Re 0.95 and the steep hike in tariff was in spite of Orissa having a considerable amount of cheap hydro-power and low agricultural demand.

The story is not different in other reforming states also. State subsidy to the restructured power sector has in fact increased in other reforming States like Haryana, Karnataka, Rajasthan, Madhya Pradesh Andhra Pradesh and Uttar Pradesh also. West Bengal government had to write off Rs 9806 crores that the State power sector had incurred in terms of loan and fuel cost and Rajasthan government has promised Rs 8400 crores in subsidy to the State's electricity companies. It should be noted that the power sector restructuring was advocated on the plank of this very inefficiency of the government's having to subsidise the sector; and the hard fact is that this inefficiency has considerably increased after the reform! It is significant to note that a good chunk of this subsidy is flowing out in the name of reform consultancy: consultancy fees in Orissa was Rs 300 crores, in AP it amounted to \$ 32 million and in UP \$ 8 million, for example.

### *Private Sectorisation*

It is common knowledge that the strong waves of liberalisation started to sweep across the world along with the fall of socialism. Public sectorisation had given capitalism a new lease of life in the face of threats from a flourishing socialism. But the disintegration of the socialist bloc, the raging discontent that resulted in massive popular uprisings against the (quasi) socialist regimes in the Eastern Europe and the costly inefficiency of unaccountability that characterised the public sector in general were all detracting from the vitality of socialist slogans and had the makings of a new twist which the stagnant history badly needed. The capitalist survival now required a new strategy of global expansion, facilitated by a variant of *laissez faire*. The Thatcherite drives of private

sectorisation in the UK, projected under a colourful TINA banner, and the deregulation bids in the US were powerful political over-fishing in the troubled water of a vacuum of reliable pro-people alternative. In this powerful sweep, the public sector in India, that was apparently qualified as having fallen from the 'commanding heights' to the 'demanding depths' of inefficiency, too was soon marked for market. Conveniently concealed in this hasty decision making were the obvious evidences of the socio-economic development India had been able to achieve through the 'commanding' distributive channel of a public sector.<sup>18</sup> The official machinery was only keen to magnify the dark specks of avoidable functional inefficiency of a number of public sector enterprises (PSEs) in a concerted bid to justify privatisation. Even an influential section of the informed atmosphere of India appeared alarmed over the apparent low productivity of the public sector, without caring for locating its sources for possible cures, and the functional inefficiency, still avoidable or easily curable, was identified with structural/organisational deviations. This made it easier to reach a foregone conclusion in favour of restructuring. Thus, starting with the sixth Plan (in the early 1980s), private sectorisation in India got the full thrust at the cost of public sector with the eighth Plan in the era of liberalisation, privatisation and globalisation, the new form of the cyclical survival tactics of the capital.

### *Corruption in privatisation*

In addition to major contracts and concessions, liberalisation has opened up another avenue of corruption, that is, privatisation. This has been the single largest route of payments that has pushed the transition economies (the countries of the former Soviet Union) to the highest level of corruption in the world.<sup>19</sup> China too is not an exception in this respect of its reform drives.<sup>20</sup> An explanation of corruption in transition views privatisation and liberalisation as market oriented reforms that allow rent seeking and corrupt practices to proliferate. Corruption in transition is the result in particular of the incipient nature of restraining legal and other regulatory institutions (see, for example, Weisskopf 1992). However, this *ahistorical* explanations, ignoring the roots of corruption (the Czarist Russia was one of the most corrupt nations, Massie 1980) fails to reflect upon the conditions in the transition economies in the period immediately before and during the

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<sup>18</sup> While enlarging upon the need for Indian economy's restructuring, the World Bank (1996: 3) had to recognise, though in passing, that 'India's pre-1991 planned development strategy helped the country escape from the massive illiteracy, recurrent famines, fertility rates of about 7 children per woman, and secular stagnation prevailing before Independence.'

<sup>19</sup> See, for a comparative analysis of corruption levels across countries, World Bank (1997). Corruption in the transition economies is explained among others by Boycko et al. (1995), Feige (1997), Kaufman and Siegelbaum (1997), Malia (1995) and Weisskopf (1992).

<sup>20</sup> According to Quinglian (2000), what has occurred in China since 1978 as a result of what she calls 'the marketisation of power' has been nothing but a 'socialist free lunch' by which the politically powerful in China have used their still awesome administrative and personal power to plunder the former state-owned economy and 'laugh all the way to the bank'!

break down of the socialist system that acted as an ideal medium for the growth of 'monetary corruption'. The New Institutional Economics views corruption in transition as a continuum from the past, thus recognising the legacy of corruption under the socialist system. Since institutional changes occur slowly and incrementally, history may be taken as a predictor of the continuing patterns of corruption during the transition (Feige 1997). Though historical path dependency is an important framework of explanation of corruption, the experiences of the transition economies had an immense and immediate ('big bang') onset of political and institutional changes that were by no means evolutionary nor incremental. The changes imposed through *ex cathedra* proclamations in fact disregarded the need for a conscious development of a rule of law to substitute, while unleashing the reins of order of the old regime. And the resultant chaos filled the vacuum with full corruption.

The transition in India on both the occasions (of initial public sectorisation and the later liberalisation) was however within the confines (of a modicum) of rule of law.<sup>21</sup> But the historical path dependency of corruption still stuck in the inevitable loopholes of rules.<sup>22</sup> Unlike the Western industrialised nations, India (and other developing countries) could not pass through a character-smelting cultural revolution in the progressive phase of the development of capitalism. Just as colonialism in these countries had found it profitable to prop up the corrupt cultural vestiges of the old feudal system, so did capitalism too. Thus corruption continued as if determined by a historical necessity for the State.

In the initial period of moulding a socialistic pattern of society under a sacrosanct planning system in India, almost every economic activity had some contact with control and regulation. Where control and regulation were tighter and grew in complexity, political and bureaucratic discretion in administering controls naturally involved an increasing scope for rent seeking (Government of India 1964: 7-8). Though Gunnar Myrdal (1968: 942-943) believed 'on the basis of scanty evidence' that India, 'where a moralistic attitude is especially apparent', might '...on the balance, be judged to have somewhat less corruption than any other country in South Asia', Santhanam Committee (on Prevention of Corruption 1964) found corruption as an increasing function of economic controls in the Indian planning system.<sup>23</sup> Krueger, who formalised the notion of rent seeking, estimated in 1974 the annual welfare costs of rent seeking on account of price and quantity controls in India to be about 7.3 per cent of the national income of 1964, 'judged large relative to India's problems in attempting to raise her savings rate.' (Krueger 1974: 294). Following the same 'procedure of approximating rent seeking costs by the value of rents created

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<sup>21</sup> To be precise, the changes in India were *not* political and institutional, but were in the ruling economic principles.

<sup>22</sup> See Thakur (1979) for a detailed discussion on corruption in the ancient India. Myrdal (1968 Chap. 20) gives a good discussion on corruption in modern India, extensively quoting from Santhanam Committee Report (1964).

<sup>23</sup> For one example, the Committee (Government of India 1964b:18) found that import licences in India were worth 100 to 500 per cent of their face value!

by controls' in the external sector, capital market, goods market (including agriculture) and labour market, Mohammad and Whalley (1984) however found the cost of rent seeking to be approximately 30 to 45 per cent of the national income in 1980-81.

To the extent that politicisation of economic activities through control regimes results in vast scope for corruption, its antidote is sought in depoliticisation. Thus liberalisation, while putting an end to administrative discretion<sup>24</sup> of control *raj* over the private sector in principle closes down the associated avenues of corruption too. Where control is over ownership rights (the state sector), depoliticisation of economic activities entails privatisation, i.e., conversion of control rights, involving discretionary political and official actions, into private, market-driven choices, supposedly free of corruption. But an important question, not at all addressed in this respect is: are the benefits from elimination of costs of control rights greater than the costs of profit-driven private choices? Here we concur with the liberal socialists who would still say: 'Officials subject to democratic control seem preferable to private corporation executives who practically are responsible to nobody.' (Lange and Taylor 1938: 109-110). This is especially so in a country like India where the private sector is characterised by an absence of transparency in its functioning, let alone that of its susceptibility to social control. The infamous dysfunctionings of the capital market with the corresponding predatory behaviour of its actors lends sufficient credence to such a view.

Privatisation, transfer of control rights, is expected to reduce corruption, but the privatisation transaction itself can be corrupt in the same way as in the award of concessions and contracts. The prospective buyers may vie and pay for getting included on the list of pre-qualified bidders as well as for restricting the number of other bidders. Rose-Ackerman (1999) illustrates three more corrupt practices in this respect. (1) In the absence of a scientific method of valuation of assets of the state enterprise marked for privatisation, the uncertainties of the process can facilitate scope for insider plays. The favoured buyer can easily procure information not available to others, or much earlier or reserve special treatment in the bidding process. He can even get the assessment process corrupted in his favour by having assessors of his choice get the bid and do the work. (2) With no assets evaluation criterion to rule, corrupt officials can under-value a state enterprise in return for pay off. The firm may be presented as unhealthy and its prospects, feeble such that the favoured buyer can outbid others. (3) The prospective buyers would be keen and ready to pay more to retain whatever monopoly power was available to the state firm. 'To an impecunious state and its bidders, assuring monopoly power is in the interests of both. Thus the conflict between revenue maximisation and market competition arises for all privatisation deals. If a state gives lip service to

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<sup>24</sup> 'Where there is power and discretion, there is always the possibility of abuse, more so when the power and discretion have to be exercised in the context of scarcity and controls and pressure to spend public money.' (Government of India 1964b: 9)

competitive principles, however, it may be unable to endorse monopolisation openly. Corrupt back-channel deals can then accomplish that objective...’ (Rose-Ackerman 1999: 37).

Privatisation of electricity sector in the Indian context is obviously ominous of disaster. The assets of SEBs are highly under-valued; the gloomy presentation of a sick SEB would further cut into its value. Howsoever professedly meticulous the assets valuation rule(s), privatisation would thus amount to a cheap sell-out. The very high corruption potential would just add to this woe. The whole assets, accumulated by two generations of tax payers over a period of half-a-century, would thus be lost for a one-time paltry payment to the then government to squander.

Moreover, privatisation of the electric utility necessarily involves the problem of retention of monopoly power of some degree, as history amply shows. Manzetti (1994) argues, among other cases, that the privatisation of electricity industry in Chile involved such (unfair) deals that could generate monopoly rents for the winners. For another example, the two major generators in the English electricity supply industry, viz., National Power and PowerGen, had enjoyed sufficient market power in the Pool to raise prices and make supernormal profits (Green 1999). Rent seeking costs, related to such monopoly power retention processes, as explained earlier, are necessarily accommodated in higher market prices. In the English electricity supply industry too, as elsewhere, the increased cost was passed on to small consumers (*ibid.*).

The drive for power sector reform in India has been opening up a vast field for corruption in which the international lenders too have been eager to claim their stakes. Such experience comes with its rude shock from Orissa itself where the World Bank has been a major party to misappropriate and squander a good part of its structural adjustment loan to the state in the name of consultancy fee, service charges, and so on. The Government has been forced to opt for foreign firms, instead of capable indigenous firms, as consultants in the reform programme, in violation of guidelines. Crores of rupees have been drained away into the consultants’ coffers, of course with a part of it re-channelled into some domestic pockets also. The same is the case in almost all the States, whether or not the Government in power is keen on implementing any reforms at all. Even in Kerala, that is dead against the so-called power sector reforms, there have been much heated allegations of corruption in respect of appointing a Canadian firm (SNC Lavalin) as consultants on ‘power sector reform-related policy matters’.

Yet another disastrous consequences comes from the fact that a private enterprise system necessarily works on exclusion principle. The vast scope for lodging all sorts of large scale rent seeking costs in over-capitalisation stands pretty well to inflate supply costs that can exclude a sizeable proportion of consumers with limited purchasing power. Higher incidence of exclusion would be one of the deleterious social costs of private sectorisation in a poor country like ours, leading to increasing or excessive inequality, both individual and regional. As argued by Galbraith (1998), though in another context, the process, beyond a certain indefinable threshold,

may become cumulative and unstable, and is likely to result in a loss of community and social coherence. And all this is in addition to the wasteful expenditures and transfer of resources. Moreover, such capital cost inflation confounds the very problem (viz., allocative inefficiency) presumably intended to be solved through privatisation.

*There is no TINA force!*

As nationalisation of natural monopoly ensures *both* productive as well as allocative efficiency *and* equity, a vertically integrated monopoly organisation of electric utility in the public sector remains a foregone conclusion. However, an atmosphere of warring sectional interests out to capture benefits along with a conducive regulatory policy of populism has contributed to a mismanagement syndrome in the case of most of the SEBs (Kannan and Pillai 2002). Their functional inadequacies and financial infirmities, though entirely avoidable, have come in handy for a mis-characterisation of the whole sector: the costly dysfunctions are unreasonably identified with economic inefficiency, which in turn is associated with the standard notion of some market structure devoid of competition. As already explained, this inevitably makes restructuring in favour of privatisation seemingly desirable. Behind this work informed attempts unfortunately organised to focus solely on aspects of allocative efficiency to justify the move. For example, there are strong arguments that technological advancements (such as combined cycle gas turbine (CCGT) plants of smaller size and shorter gestation periods) render the natural monopoly in generation sector irrelevant and hence competition for allocative efficiency is possible in that sector – both competition *for* market (initially in setting up plants, *given* a corruption-free franchise bidding mechanism) and competition *in* market (later on during operation, *given* a highly efficient ‘*tatonnement*’ agency) are postulated to be possible. The distribution sector, though purely a local monopoly, also is proposed to be compatible with competition *for* market. However, the invariable location specificity of plants other than CCGT ones and the asset specificity in the transmission-distribution sector still leave the system predominantly a natural monopoly and its nationalisation does ensure increased gains in both equity and efficiency.<sup>25</sup> It is at the cost of these gains *and* with higher (transaction) costs of co-ordination and regulation that the hypothesised competition is being sought.

The cunning generalisation of the experience of performance disorders of some of the PSEs has been at the cost of the name of other well-functioning ones. In the power sector itself, the National Thermal Power Corporation (NTPC) continues to be a star performer by world standard. The Maharashtra SEB (MSEB) had been adjudged as a model for other SEBs in both physical and financial performance till the entry of the Enron through the openings of liberalisation. The MSEB’s encounter with the Enron illustrates the potential disaster involved

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<sup>25</sup> Remember, in a country like India, rich with hydro-power potential, a judicious hydro-thermal plant mix in generation capacity, along with considerations of high-cost gas power vis-à-vis cheap and clean hydro-power can ensure this for a long time.

in the new policy. At the same time, this invalidates the already unfounded claims for liberalisation as stemming out of a TINA force of economic inefficiency; in fact the Enron *a la* liberalisation has been instrumental in inducing systemic inefficiency into the MSEB. Moreover, the glaring examples of the PSEs with golden track records have already refuted such TINA force argument. And this becomes evermore obvious as the Indian government is feverishly engaged in selling out *only* the profit making PSEs, for example, the Bharath Aluminium Company (Balco). If privatisation is thus resorted to not on account of economic inefficiency and out of a relevant TINA force, then, naturally a possible explanation is to be found in the vast scope for corruption in it.

## 7. Conclusion

In concluding, let us re-stress the role of effective Government intervention in the interest of common good. The emergence of governmental authority in the history of the development of the social relations of the mankind signified the significance of common good over individual interests, though later on the institutional intention got tainted by the power of private property rights. The enlightened rulers of the ancients were expected to identify their own individual interests with common interests and to rule accordingly. At a progressive stage of the development of social history, even 'the invisible hand' of *laissez faire* could be thought of having yielded, though initially only, the greatest social benefit through individual pursuit of own interests. However, at a reactionary stage, as we seem to witness now, the *laissez faire* of private interests would only conflict and collide with each other under the 'animal spirits' of a natural selection rule. Hence the need for government intervention. This assumes added significance especially in a less developed economy of majority poor. However, such ethical commitments dry up under the hypocritical archetypes, ingrained in the Indian subconscious mind, in league with the political economy of corruption. The future holds promises only with the rise of an enlightened society out of a soul-cleansing cultural revolution, reminiscent of that of the era of liberalism, having 'a system of politics and administration marked by a high degree of personal integrity' (Myrdal 1968: 957).<sup>26</sup> Along with the Santhanam Committee, we would like to add: 'We are convinced that ensuring absolute integrity on the part of Ministers at the Centre and the states is an indispensable condition for the establishment of a tradition of purity in public services. ....In the long run, the fight against corruption will succeed only to the

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<sup>26</sup> The Santhanam Committee (1964) long back recognised that ministers and legislators must be above suspicion and proposed codes of conduct for these two categories of politicians and special procedures for complaints against them. Accordingly, on 29 October 1964 itself, the Government of India released the text of a code of conduct for ministers both at the Centre and in the states. The code required disclosure by a person taking office as minister of the details of his and his family's assets and liabilities as well as business interests. He was also required to sever all connections with the conduct of any business. However, the scepticism expressed at that time itself on the loyalty on the part of the intended persons to the codes of conduct has proved right. Myrdal in 1968 itself wrote: 'Later, the eagerness for reform seems to have died down. The reports are that corruption in India has recently been increasing.' (Government of India 1964b: 956, fn. 2)

extent to which a favourable social climate is created. When such a climate is created and corruption becomes abhorrent to the minds of the public and the public servants and social controls become effective, other administrative, disciplinary and punitive measures may become unimportant and may be relaxed and reduced to a minimum.’ (Government of India 1964b: 101-102). This underscores the imperative for a vigilant civil society, fully conscious of and committed to its duties and rights, to act as a watchdog in the common interest. However, the emergence of such a civil society cannot be spontaneous, but has to be striven for by conscious public praxis *in toto*. Although we recognise the exertion of such public praxis by a few concerned citizens and their organisations, the challenge is so enormous that it calls for much greater intensification of efforts so as to eliminate, at the least, the scope for rent seeking.

It should be stated that there definitely has appeared a silver lining: thanks to controversial power projects, there has been wide public debate as well as informed discussion, though greater transparency in decision making, greater public participation (especially from the civil society), and greater information dissemination are still wanting.

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