

Working Paper 262

**Governance Reforms in
Power Sector:
Initiatives and Outcomes
in Orissa**

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GOVERNANCE REFORMS IN POWER SECTOR: INITIATIVES AND OUTCOMES IN ORISSA

Bikash Chandra Dash and S N Sangita*

Abstract

This paper examines the impact of governance reforms on efficiency, equity and service delivery in order to identifying the factors responsible for the success/failure of reforms in the power sector in Orissa. The paper is divided into five sections. The first section deals with the introduction. The second section includes the analytical framework and background of governance reforms in power sector. The third section focuses on the impact of governance reforms on performance in terms of efficiency, equity and service delivery. The fourth section analyses the factors responsible for the performance of the power sector. The last section concludes with policy perspectives.

Introduction

India's performance in the power sector is quite disturbing in spite of its impressive economic growth in recent years. The per capita consumption of electricity in India is still the lowest in the world (about one-third of that of China). The gap between demand and supply has been increasing over the years (shortage stood at 14.2 per cent in 2005-06 as against 12.4 per cent in 1999-00)¹. A large section of the population, particularly from rural areas, has no access to electricity (only 43.5 per cent of households have electricity connection)². Power cuts (scheduled and unscheduled), break-downs and low voltage are very common. Transmission and Distribution (T&D) losses due to theft, technical problems and commercial losses (poor billing and collection) was around 23.2 per cent in India (ranging from 16.6 per cent in Tamil Nadu to 42 per cent in Orissa) as against 3-4 per cent in USA (www.indiastat.com)³. The State Electricity Boards (SEBs), which are responsible for distribution of electricity (supply, metering, billing, collection) are cash strapped and not able to earn the minimum Rate of Return (RoR) of 3 per cent on their net fixed assets (Rao, 2004). The annual loss of the SEBs has reached Rs 40,000 crore. The SEBs default in paying dues to the Central Power Sector Utilities (CPSUs) and have accumulated dues to the tune of Rs 40,000 crore.

The consumers' are facing problems like frequent power cuts, low and fluctuating voltage, lack of response from service providers, inadequate grievance redressal mechanism and corruption (Paul 1995; Balakrishnan et al 1998, Reports on India's Power Sector, 2003)). The poor too have no access to this service due to leakages and poor targeting of subsidies.

Keeping this in view, the national and state governments initiated many reforms in governance to improve the quantity and quality of electricity supply. The Government of India amended the Electricity Supply Act, 1948 and the Indian Electricity Act, 1910 and passed the Electricity Act, 2003 to facilitate private sector investment in generation and transmission in the power sector. Independent

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Electricity Regulatory Commissions came into existence to protect the interests of the producers and consumers and to ensure quality service delivery. Consumer councils were constituted to involve consumers in decisions relating to tariffs and setting the standard for provision of services. As a part of these initiatives, Orissa was the first state in the country to introduce governance reforms in the power sector (Haryana, Andhra Pradesh, Uttar Pradesh, Karnataka, Rajasthan, Gujarat and Delhi did so later). This paper examines the impact of governance reforms on efficiency, equity and service delivery in order to identifying the factors responsible for the success/failure of reforms in the power sector in Orissa.

1. Methodology of the Study

Both primary and secondary data was collected for the study. Information was collected from the consumers, administrators and representatives of civil society organisations. Secondary data was collected from reports, published government documents, newspaper clippings, websites, books, journals and magazines. The primary data was collected from 300 respondents selected by random sampling from 12 villages selected on the basis of purposive sampling from four distribution companies, i.e., the Central Electricity Supply Utility (CESU), the Eastern Electricity Supply Company of Orissa Ltd NESCO, the Western Electricity Supply Company of Orissa Ltd (WESCO) and the Southern Electricity Supply Company of Orissa Ltd., (SOUTHCO) which are now responsible for the distribution of power supply in Orissa.

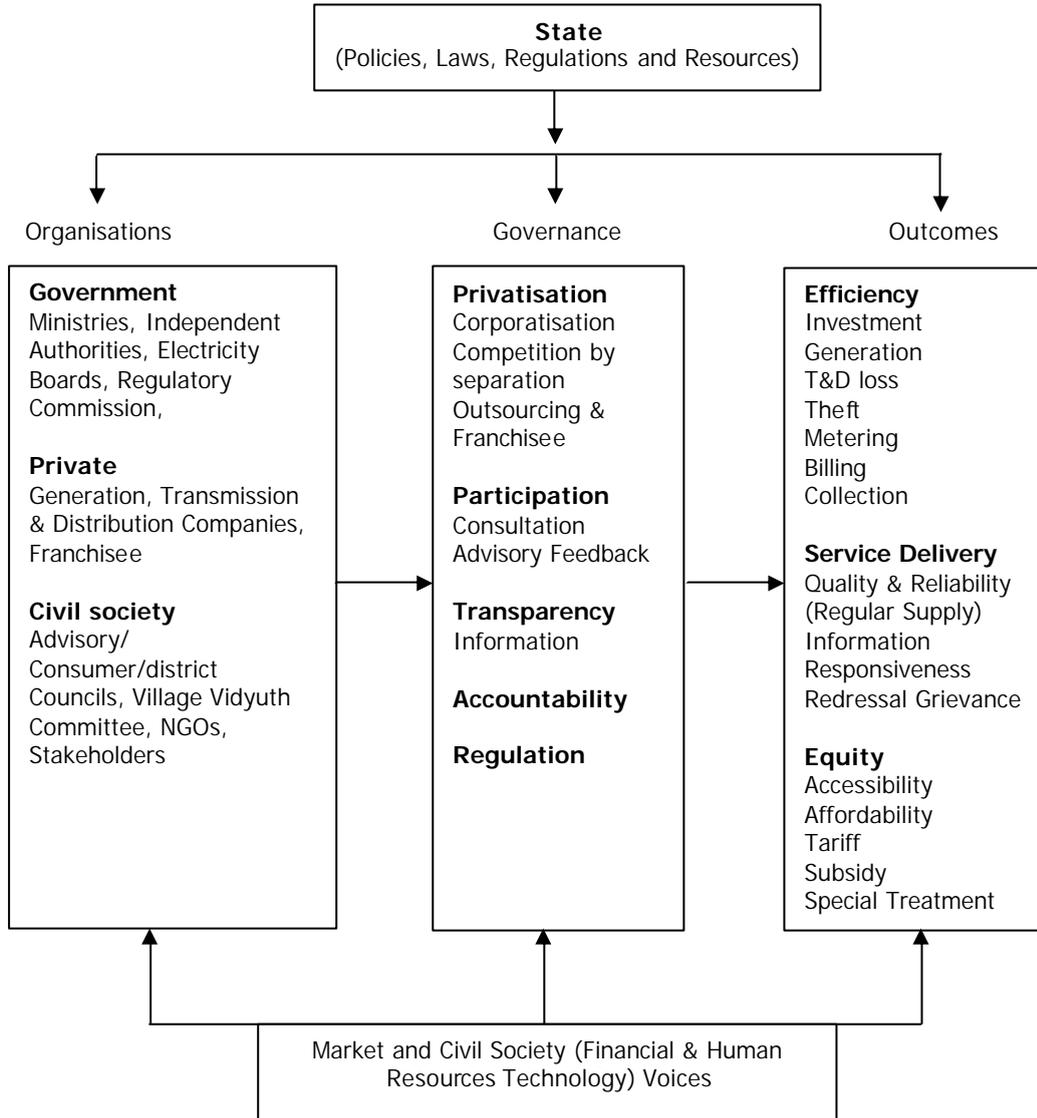
The paper is divided into five sections. The first section deals with the introduction. The second section includes the analytical framework and background of governance reforms in power sector. The third section focuses on the impact of governance reforms on performance in terms of efficiency, equity and service delivery. The fourth section analyses the factors responsible for the performance of the power sector. The last section concludes with policy perspectives.

Analytical Framework and Governance for Power Sector

1. Analytical Framework

The production, transmission, distribution and consumption of power efficiently and equitably depends upon the manner in which the government, private and civil society organisations are involved in formulating and implementing policies related to the power sector as shown in the Figure-2.1

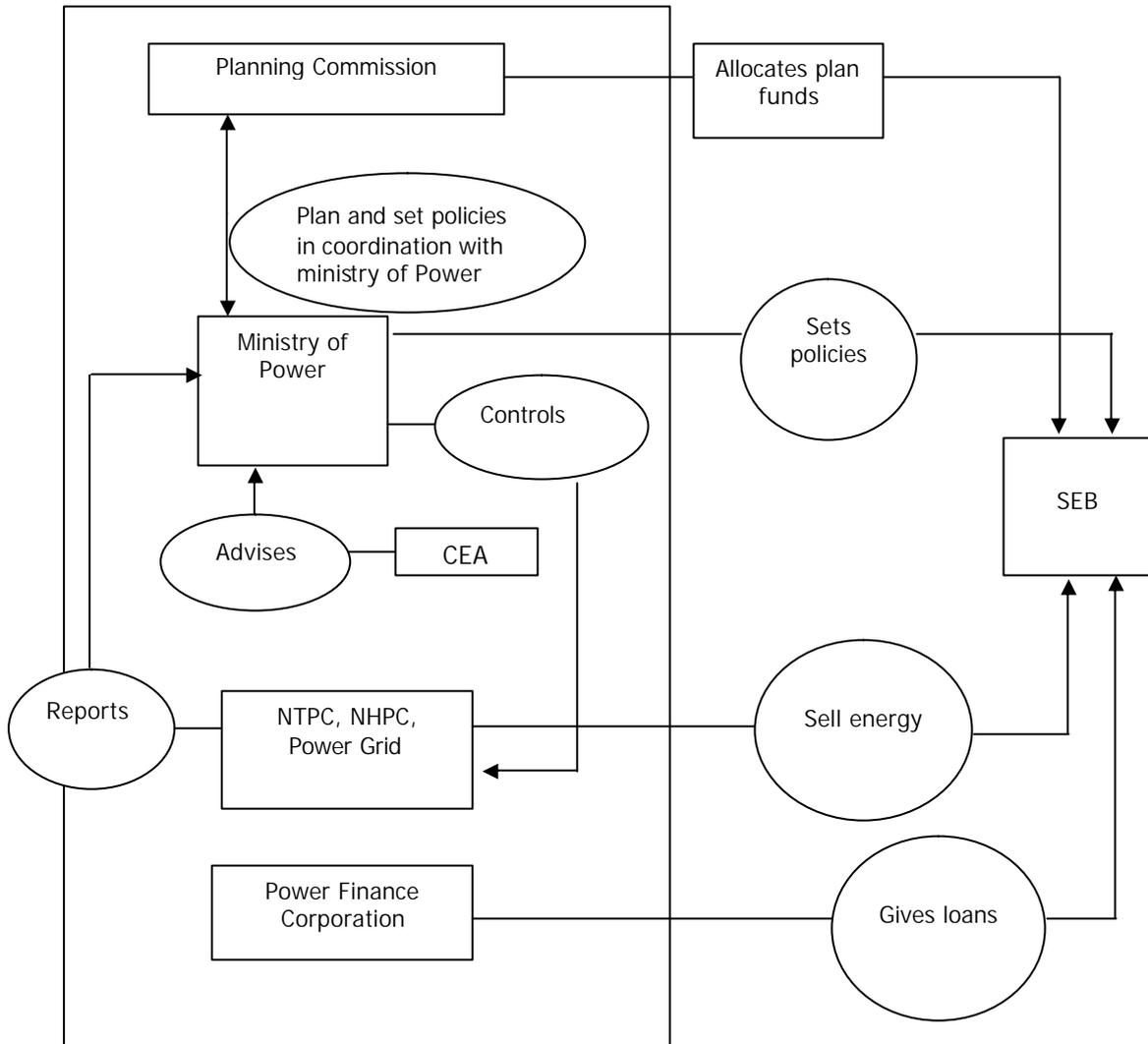
Figure 2.1: Analytical Frame Work



2. Governance of Power Sector: Reforms

Prior to the implementation of reforms, the state government (department, minister, bureaucracy, judiciary, regulators, and political leaders and SEBs) was mainly responsible for generation, transmission, distribution and delivery of electricity. Along with the central government, the Planning Commission, Power Ministry, Central Electricity Authority (CEA), Power Finance Corporation (PFC) National Thermal Corporations (NTPC) and the National Hydro Power Corporation (NHPC) influence the policies related to power governance as shown in Figure-2.2

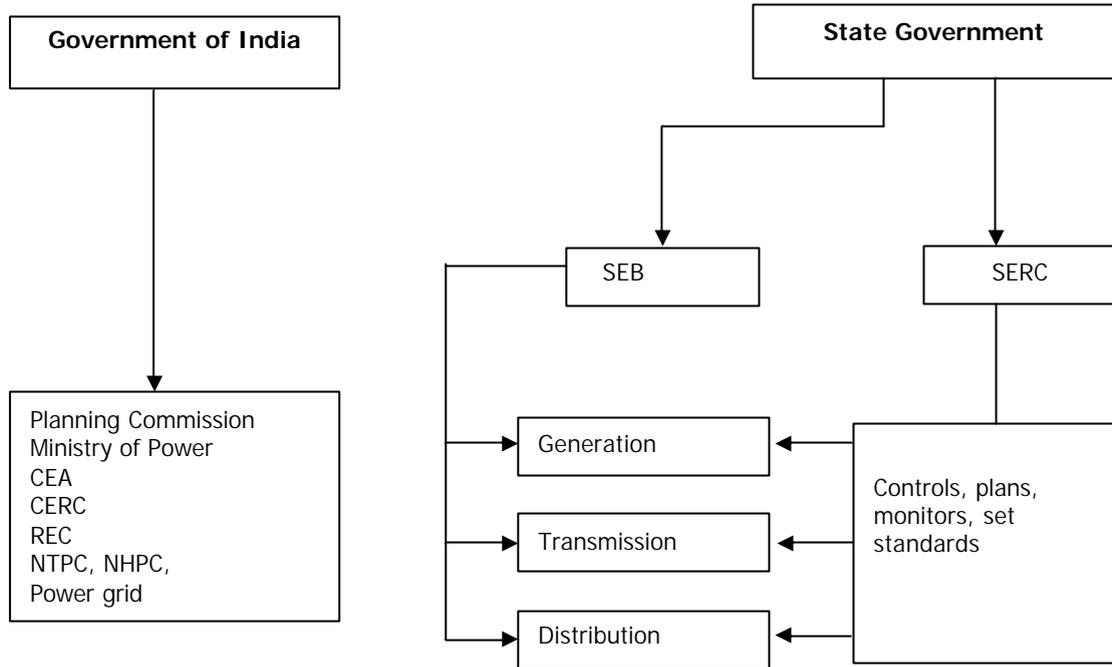
Figure 2.2: Governance of Power Sector: Before Reforms



Source: Ruet, 2005

However, after the implementation of reforms, these responsibilities were partially and/or fully transferred to independent regulatory authorities, private companies and civil society and peoples organisations as shown in Figure-2.3.

Figure 2.3: Governance of Power Sector: After Reforms



Source: Ruet 2005

3. Power Sector Reforms in Orissa: Background

In accordance with the provisions of the Electricity Supply Act 1948, the Orissa State Electricity Board (OSEB) was formed in 1962 to carry out the responsibilities of generation, transmission and distribution of electricity in the state. The Government of Orissa (GoO) provided the financial requirements of OSEB for all these activities. However, in the early 1990s, the financial condition of the state government was poor. The revenue deficit of GoO stood at Rs 1877.1 million in 1991-92 as against a surplus of Rs 279.8 million in 1982-1983 (www.orissagov.com). The state domestic product was second lowest and 48.56 per cent of the population was living below the poverty line during the early 1990s. Therefore, the government of Orissa could not make budgetary allocations for the state's power sector as per the requirement. This affected the functioning of the power sector in the state.

The installed generation capacity of the state was 1632 MW in 1991-92 which was inadequate (Ramanathan and Hasen 2005). The state's peak deficit was 23.9 per cent (Planning Commission 2001) as against 18.8 per cent at the national level (Ramanathan and Hasen 2005). The gap between the average cost of supply and average tariff was increasing in the state. It increased from 8 paise in 1989-90 to 18 paise in 1991-92 (Ramanathan and Hasen 2005). The OSEB was overstaffed and the number of employees per million units of energy sold in Orissa was 6.2 while the national average was 4.5 (Ramanathan and Hasen 2005).

In order to address these problems, Orissa, in a pioneering effort in India, introduced reforms in the power sector in 1991 (Government of Orissa 1996). The Orissa Electricity Reform Act, 1995 was passed and came into force on April 1, 1996 (Kannungo Committee Report on Power sector of Orissa, 2002). The important components of the reforms under this act are: unbundling of OSEB by structural

separation and corporatisation of generation, transmission and distribution, establishment of the Orissa Electricity Regulatory Commission (OERC) and privatisation of distribution through four companies - Northern Electricity Supply Company of Orissa Limited (NESCO), Western Electricity Supply Company of Orissa Limited (WESCO), Central Electricity Supply Company of Orissa Limited (CESCO) and Southern Electricity Company of Orissa Limited (SOUTHCO) as shown in Figure-2.4. The other components of reforms include the constitution of District Electricity Committees and State Advisory Committees (SAC), Village Electricity Committees (VECs), Franchisee and public utilities. The governance of the power sector with regard to policy formulation and implementation, generation, transmission and distribution responsibilities, accountability mechanisms, transparency parameters for both the pre-reform and post-reform situations are presented in Table-2.1

Figure 2.4: Governance of Power Sector in Orissa: After Reforms

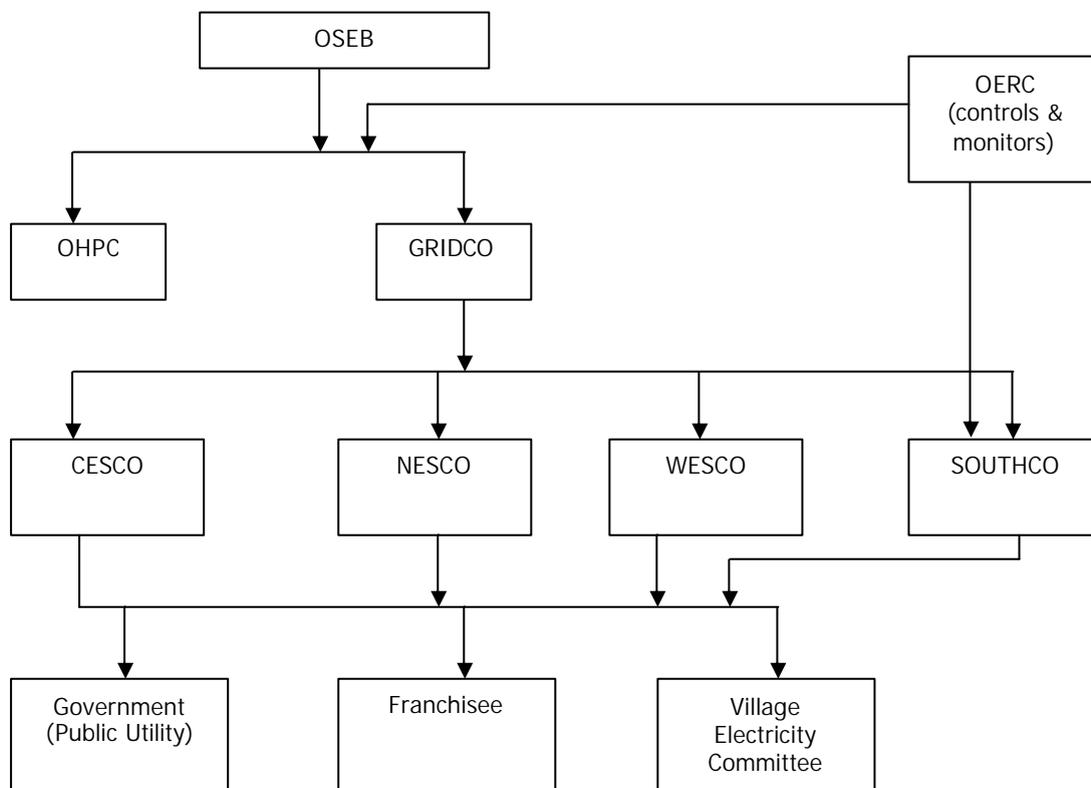


Table 2.1: Governance of the Power Sector

Governance parametres	Before Reforms (pre 1990)	After Reforms (post 1990)
Policies	State regulation	Privatisation, public private partnership, independent regulation, stakeholder participation in decision making and its implementation
Responsibilities		
Final Authority in Policy Making	Government	Government
Production of Electricity	Public sector (100%)	Public sector and Private sector
Transmission	Public sector (100%)	Public sector and Private sector
Distribution	Public sector (100%)	Public sector and Private sector
Stakeholder involvement in the Sector		
Decision Making	Government	Government, Private Companies, Public sector companies, Regulatory Commission, Public and Consumer representatives
Decision implementation	Government through SEBs	Government, Private Companies, Public sector companies, Regulatory Commission, Public and Consumer representatives
Accountability		
Control of Ministers/Representatives	Power Ministers were controlled by and made answerable to Parliament & Legislative Assembly (Indirect)	Consumer grievance redress Cells, Norms and rules of service quality and responsibility of the officials, role of consumer bodies and VECs (Direct)
Control of Officials	Officials answerable to ministers (Indirect)	Officials answerable to consumers, consumer organisations and ERCs (Direct)
Transparency		
Information on Rules & Regulations	Circulation within departments	Circulation within departments and among all stakeholders including consumers, application of ITC
Information on Financial transactions and tariff issue	Available to ministries and SEBs	Available to ministries and SEBs, consumer bodies, individual consumers

Findings of the Study

1. Major Governance Issues in Power Sector in Orissa

The first governance issue in the power sector is to reduce the gap between supply and demand by increasing generation and reducing T & D losses (arisen out of non-metering, billing, collection, and theft) through private participation and modern technology (since government has limitation in this regard).

The second important governance issue relates to equity since power, being a very essential service, is considered as a merit good. It must be accessible to all irrespective of region and class. It is also essential to examine whether the subsidy given to the needy is reaching them or not.

The third major issue is effective delivery of services to consumers. Power cuts, fluctuating voltage, low voltage, electrical accidents, mechanical breakdowns, technical defects due to burn-outs etc., make consumers unhappy and many areas remain dark due to prolonged power cuts, particularly in rural areas. Billing arrears and meter problems cause untold sufferings on the consumers. Lack of appropriate response from the service providers, delay in redressing grievances and repeated visit by the consumers to the offices add to the worries of the consumers.

Regulation of the power sector constitutes another important dimension of governance (not discussed in this paper). The generating, transmitting and distributing utilities need to be regulated to ensure that they comply with the rules and regulations of the contract with regard to tariff, service standard, grievance redressal, maintenance of power equipment etc. Appropriate regulation will ensure efficiency, equity and effective delivery of services.

2. Efficiency: Investment and Generation

The study has found that power sector reforms in Orissa have not achieved the desired results in the post-reform period. Firstly, there is no increase in the investment in generation and transmission. Private investment in generation and transmission is marginal. The four DISTCOs have invested 51 per cent in distribution and the remaining 49 per cent has come from the public sector. This is the one time investment and the DISTCOs have not further invested in maintenance and renovation of the sector. The amount received from the World Bank and other lending agencies were invested in the restructuring process. So far, no self-generated amount has been invested in the sector. Furthermore, one American private company, AES has quit the distribution business (CESCO) and the Government of Orissa (GoO) had to take up the management. Another Indian company Reliance has declared that it will quit from the other three DISTCOs - WESCO, NESCO and SOUTHCO. These companies are complaining of regulatory interference and lack of support from the government. Now all the DISTCOs have a wide gap between revenue generation and revenue requirement which is Rs 832.95 crore for CESU, Rs 408.85 crore for WESCO, Rs 204.54 crore for NESCO and Rs 303.79 crore for SOUTHCO (OERC website).

In 2004 the total investment (paid-up capital) in Orissa was Rs 12,294.34 crore out of which the power sector alone received Rs 8852.20 crore which amounts to 72 per cent (CAG Report 2010). All this capital went to the Orissa Power Generation Corporation (OPGC), the Orissa Hydro Power Corporation (OHPC), the Grid Corporation of Orissa Limited (GRIDCO) and the Orissa Power Transmission Corporation Ltd. By this time reforms had already been initiated. In Orissa the distribution sector was privatised and the privatisation responsibility was taken over by the Reliance Company. The Reliance Company initially invested Rs 117 crore while taking charge of distribution. From time-to-time the state government invests in the power sector either by budgetary allocation, loan or equity in generation or transmission because all the investments have gone to OPGC, OHPC, GRIDCO and OPTCL which are not distribution companies. For example in 2009, the total investment by the state government in power sector (GRIDCO, OHPC, OPGC and OPTCL which are generation or transmission companies) was Rs 1,086.92 crore. In other words, neither government nor the distribution company (Reliance) have invested in distribution.

All three companies have an accumulated loss of Rs 2,000 crore and are facing legal challenges to their very existence as there is a case pending before the State Electricity Regulatory Commission on license revocation. In 2008-09 the total loan given to power sector was Rs 4,772.71 crore out of which state government's share was Rs 1,556.74 crore. Out of the total paid-up capital of Rs 1,329.48 crore the state government's share was Rs 1,086.92 crore in the same year (CAG Report 2010). This shows that the private investment in the sector is far below expectation.

Efficiency: Reduction of Metering, Collection and AT&C Loss

The distribution loss of the DISTCOMs is alarming which is more than stipulated. The distribution loss of the four distribution companies was around 53.50 per cent in 2009-10 as against 57.6 in 2001-02 (Table-3.1)

Table 3.1: Company and year wise Distribution Loss of DISTCOs (in per cent)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10
CESU	54.5	49.6	46.4	47.4	49.7	53.2	53.8	53.24	52.20
NESCO	65.1	58.8	62.1	60.6	59.2	59.5	59.3	59.40	52.70
WESCO	63.3	58.6	63.4	65.0	65.5	65.0	65.3	65.65	55.40
SOUTHCO	46.7	45.9	50.2	47.8	49.6	52.4	54.9	57.63	54.40
ALL ORISSA	57.6	53.1	54.9	54.9	55.8	57.5	58.2	58.63	53.50

Source: Report of Orissa Electricity Regulatory Commission 2010 downloaded from its website www.orierc.org

Table 3.2: Year-wise Data on Transmission, Collection and AT & C Loss of DISTCOs (in per cent)

Transmission Loss	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
CESU	40.94	43.0	39.8	41.5	42.9	43.5	41.5	40.34	39.0
NESCO	46.98	41.4	43.7	39.4	37.1	33.2	31.2	34.57	32.2
WESCO	41.08	38.3	39.0	36.4	37.8	36.4	36.1	33.55	33.8
SOUTHCO	40.89	39.1	42.5	40.5	41.1	43.4	45.5	47.78	47.9
All Orissa	42.21	40.7	40.8	39.2	39.6	38.6	37.5	37.50	36.7
Collection Efficiency									
CESU	85.0	79.9	82.1	83.5	88.9	92.8	92.4	91.8	96.7
NESCO	85.0	81.5	85.5	95.6	90.0	88.7	93.2	93.8	90.5
WESCO	85.0	85.4	88.0	91.7	93.7	94.3	92.9	95.5	96.0
SOUTHCO	85.0	83.4	88.2	100.5	95.3	94.3	94.1	93.9	91.2
ALL ORISSA	85.0	82.5	85.5	91.0	91.6	92.4	92.9	93.9	94.4
AT & C Loss									
CESU	49.8	54.5	50.6	51.1	49.2	47.6	45.9	45.23	41.0
NESCO	54.9	52.2	51.8	42.1	43.2	40.7	35.9	39.48	38.6
WESCO	49.9	47.3	46.4	41.7	41.7	40.0	40.7	37.63	36.4
SOUTHCO	49.8	49.3	49.3	40.2	43.9	46.6	48.7	50.80	52.5
ALL ORISSA	50.9	51.1	49.3	44.7	44.7	43.3	41.9	41.89	40.3

Source: Report of Orissa Electricity Regulatory Commission 2010 downloaded from its website www.orierc.org

The efforts to reduce transmission loss, collection and metering have not been satisfactory. The annual transmission loss in Orissa during 1981-97 was less than 30 per cent. However it was around 42.21 in 2001-02 and 36.7 per cent in 2009-10 (in the post reform period). The Aggregate Technical and Commercial (AT & C) Losses however has come down by around 10 per cent from 50.9 per cent in 2001-02 to 40.3 per cent in 2009-10. Even the figure 40.3 per cent is alarming. Improvement in metering is an effective way of reducing commercial loss. However, it has not been satisfactory. Table-3.3 shows the metering efficiency of the low tension (domestic) consumers in Orissa.

Table 3.3: Metering Position as on September, 2009

Items	NESCO	WESCO	SOUTHCO	CESU	TOTAL
Consumer metering position					
Total number of consumers	593833 (20.94)	551556 (19.45)	589934 (20.80)	1101134 (38.82)	2836457
Total number of meters	542543 (19.68)	529977 (19.22)	583400 (21.15)	1101134 (39.94)	2757054
Total number of working metering	369620 (15.55)	509327 (21.42)	544385 (22.90)	954079 (40.13)	2377411
Percentage of working meters	68%	96%	93%	87%	86%

Source: Orissa Electricity Regulatory Commission report 2010 downloaded from its website www.orierc.org

The main issue here is to what extent the T&D losses due to theft and corruption have come down, since it constitutes around 25 per cent as against 15 per cent of technical loss in 1997-98. Theft alone causes a loss of Rs 20,000 crore (Reports on India's Power Sector 2003).

According to Transparency International, nearly 65 per cent of corruption in electricity departments in India involves billing and granting of new connections (Hindu, July 1, 2005). Corruption at the delivery level is still a reality in Orissa as per the findings of this study. Out of the 300 sample respondents, 19 per cent admitted that they had to pay bribes to get services from the officials. Consumers are forced to pay rents to get quick services and to reduce the actual amount of the bills for electricity they consume. The winter session of the Orissa Legislative Assembly in 2005 in its discussions considered corruption in the awarding of contracts as the main constraint hampering rural electrification.

However, there is improvement in service delivery wherever the village electricity committees are successful in ensuring people's participation in helping the officials collect revenue, check theft and address problems related billing, metering and new connections. The State Advisory Committee (SAC), which is formed with various stakeholders of distribution and use, has made some valuable comments on decisions taken by the regulatory commission to address problems like service standards, tariff structure and consumer grievances. The following table shows what governance reforms have achieved in Orissa's power sector with regard to privatisation, independent regulation, stakeholder involvement and contracting out with analysis (Table-3.4 and 3.5).

Table 3.4: Governance Reforms and Achievements

Sl. No.	Reform component	Steps taken	Expectation	Achievement	Analysis
1	Privatisation	Formation of DISTCOs for generation, transmission and distribution	100% private investment, efficiency with reduction of T&D loss up to 33%	Private Investment of 51% in distribution, (only Rs.117 crore has come from Reliance Ltd., for distribution segment) Generation and transmission is not privatised, still more than 50% T&D loss. DISTCOs incurred a loss of Rs 2,000 crore	Private sector investment is not encouraging, walk-out of one company because of poor law and order situation
2	Independent Regulation	Constitution of OERC	Regulation of the DISTCOs and protection of consumer interest	Standards of service quality set, tariff setting done from time to time, settlement of various disputes	Orders of OERC not obeyed by DISTCOs, many legal cases in progress, failure of OERC to ensure quality service to consumers
3	Stakeholder involvement	Constitution of SAC, VECs	Providing scope to the consumers to participate in decision-making process by representing their respective interests, helping officials in billing, collection and redressal of the consumers' grievances	Thousands of VECs formed and functioning, dealing with the issues like theft of electricity, billing, collection and accountability and reliability of the power supply, SAC participating in tariff setting and participating on the matters of service quality	VECs are working well where they are getting good support and cooperation from officials
4	Contracting out	Franchise rights have been given to NGOs, private companies and Educational institutes for revenue collection on the basis of commission	Efficiency in billing, collection and consumer grievance redressal	Performance of the franchise has been better than the DISTCOs in terms of billing and collection	Effective accountability of the franchise workers, flexibility in decision making by the franchise managers are the reasons for good result

Table 3.5: Governance Reforms and Impacts

Governance Reforms	Impacts			
	Equity	Efficiency	Service Delivery	Remarks
Privatisation, Corporatisation, Restructuring, Independent Regulation, and Stakeholder involvement	Out of the total of 74 lakh households, only around 22 lakh households have been provided electricity connection, Out of 46,907 inhabited villages, 35190 villages have been electrified i.e., 75% agricultural consumption in Orissa was 5.62% in 1992/93. In 1998/99 and 1999/2000 it was 3.5% and 2.73%, respectively. The rate of electrification among poor and rich is having wide gap. In the year 1998, in case of poor it was 2.9% whereas in case of rich it was 7.5%. This trend declined to minus figure (-6.7) in 2001-02 whereas in case of rich it increased to 9%. Thus, reforms have no concern for poor	Average gap between revenue generation and revenue need of DISTCOs is Rs 437.53crore, average T&D loss 57%, billing 65% in 2005-06, collection to billing 74% in 2001-02, rate of return in minus figure. Thus, efficiency has not been achieved as per the expectation.	50.7% told staff visits sometimes, 31.7% told that staff rarely, 39.7% of them had billing problems, 44% told that the staff took at least seven days to solve the problems, 65.4% told that the officials take three to seven days to restore the supply, 19.7% consumers told that they had to pay speed money to get prompt service. Thus the overall service delivery has not improved after reforms.	From the assessment of the impact of reforms it is evident that the reforms have not been successful in addressing equity issues, efficiency parametres and service delivery. The mere change of the institutions by reforms may not produce the expected results. The nature of the functioning of the institutions whether state or market is crucial

3. Service Delivery

Quality, reliability and response of the staff, the many parameters of service delivery, are poor. Speed money, delay in getting service and power interruption is rampant. The study found that the quality of service, according to the respondents is not satisfactory. Poor staff response, mechanical breakdowns, frequent power cuts and low voltage are responsible for poor quality of service delivery. Out of the 300 respondents, 50.7 per cent mentioned that staff sometimes visit s their locality while 31.7 per cent said that staff rarely visit the field. 39.7 per cent had billing problems and 44 per cent said that the staff took at least seven days to solve low voltage problems. Out of the total 300 respondents, 36 per cent reported that power cut was one of the acute problems. Other problems include staff indifference (27.7 per cent), wrong billing (39.7 per cent), metre problem (31 per cent), fluctuating voltage (31 per cent), and low voltage (40.6 per cent). Out of total respondents, 65.4 per cent told that the officials take 3-7 days to restore the supply, 20.28 per cent said 15 days and 14.49 per cent said the staff took 30 days to solve the same problem. About 19.7 per cent consumers said that they had to pay speed money to get quick services and another 25 per cent paid speed money to reduce the bill amount.

The finding of this study is supported by the proceedings of the public hearing organised by OERC on February 11, 2010. The participants from various consumer associations, experts and researchers complained against the quality of power and service delivery. Some of the complaints against the companies are: very poor quality of electricity with low voltage, frequent power cuts, continued disruption power due to transformers getting burnt in rural areas, uncertainty over

restoration of power supply after blowing of fuse or burning of transformer, indiscriminate and prolonged power cuts in rural areas. They complained that the officials are very indifferent in attending to problems related to bills (late delivery of bills and erroneous bills and non registration of complaints), defective poles/transformers/cables and so on

4. Equity

As far as the equity question is concerned, it was found that the electricity service is not accessible to a large per cent of population in the state. Only around 22 per cent households in the state as against 43 per cent at the national level had been provided with electricity connection in 2006. Out of 46,907 inhabited villages only 35190 villages (i.e. 75 per cent) was electrified in 2001. However, it had slightly improved to 79 per cent in 2004 (www.orierc.org).

Power consumption by the agricultural sector in the state was 5.62 per cent in 1992-93. It was 3.5 and 2.73 per cent in 1998-99 and 1999-2000, respectively. In 1995-96 4,039 agricultural pump sets were added. However, it declined to 1,121 in 1999-2000. The rate of electrification among the poor is less than among the rich. It was 2.9 per cent for the poor and 7.5 per cent for rich in 1998. This trend declined to -6.7 per cent for the poor in 2001-02 and increased to 9 per cent for the rich (data for this paragraph has been taken from www.indiastat.com).

The level of electrification of the poor versus non-poor also has gaps. The level of electrification among the rich increased to 56 per cent in 2002 from 41.21 per cent in 1998. In the case of the poor, however, the figures remained static - 3.55 per cent in 1998 as against 3.31 per cent in 2002. Our study found that the largest per cent of the subsidy was going to the richer sections of electricity consumers.

Of the 45 lakh BPL (Below Poverty Line) families, according to a 1997 estimate, the Rajiv Gandhi Grameena Viduytkaran Yojana (RGGVY) covers only 32 lakh families while state's Biju Gram Jyoti Yojana covers two lakh families leaving about 11 lakh BPL families uncovered. Despite the Centre's ambitious target to provide power to 10 lakh BPL families in 47,529 villages of the state by 2012, only 29,735 villages had been electrified by the end of April 2010, as per the data of the Central Electricity Authority (CEA). With 17,794 villages yet to be electrified, Orissa is next only to Jharkhand (2,023 villages) in having the most number of un-electrified villages in the country.

The study finds that the largest per cent of the subsidy is enjoyed by the rich consumers. This, therefore, raises the question of how equitable is the subsidy policy of the government. The subsidy is meant for the poor but is not reaching the poor and therefore, not equitable.

It is evident from the above analysis that that the post-reform performance of the power sector in terms of efficiency, equity and service delivery is not satisfactory. Our findings conform with the findings of the surveys conducted by the Orissa Electrical Consumer's Association in 2010 (www.orierc.com) and the performance of the power sector of various states developed by the Ministry of Power as shown in Tables 3.4 and 3.5.

The performance of the Orissa power sector is not satisfactory, although it ranks above states like Nagaland, Bihar and Manipur as shown in the Table-3.6. Delhi, Punjab, Andhra Pradesh and Karnataka are at the top of the ladder.

Table 3.6: Performance of Power Sectors of Indian States

States	State Government	SERC	Generation	T&D	Financial Risk	Others	Commercial Viability	Total
Delhi	13.25	11.00	1.25	9.25	17.00	2.25	3.00	57.00
Andhra Pradesh	8.75	10.75	4.75	11.75	14.75	2.75	3.25	56.75
Karnataka	9.50	9.50	5.50	7.25	13.75	3.75	2.00	51.25
Gujarat	9.69	2.50	3.75	9.30	15.50	3.75	6.50	50.99
Punjab	5.25	8.00	4.50	8.50	11.75	2.75	5.25	46.00
Uttar Pradesh	9.50	10.50	2.25	6.60	9.75	2.00	1.25	41.85
West Bengal	6.81	2.00	1.25	8.33	7.25	3.75	11.50	40.89
Tamil Nadu	4.75	9.00	3.00	9.50	9.63	1.75	2.00	39.63
Maharashtra	7.25	4.00	4.00	4.50	12.25	1.25	4.50	37.75
Kerala	4.00	0.50	2.50	13.00	10.00	3.00	1.25	34.25
Madhya Pradesh	4.40 -	2.50	2.00	7.38	6.25	2.00	3.50	23.03
Meghalaya	4.40 -	00	2.00	7.38	6.25	2.00	3.50	23.03
Orissa	4.75	4.00	3.25	0.56	6.25	0.50	1.00	20.31
Nagaland	9.00 -	2.50	0.25	1.13	5.25	1.00	0	14.13
Bihar	2.25 -	2.50	0.25	2.63	6.00	1.00	1.00	10.63
Manipur	7.60 -	2.50	1.00	0.50	2.00	2.00	0	10.60

Source: Ministry of Power, Government of India 2007

Note: The points assigned to different parameters are as follows. (i) State Government related parameters 17.00, (ii) SERC related parameters 13.00 (iii) Business Risk Analysis 27.00 (iv) Financial Risk Analysis 23.00 (v) Others 5.00 (vi) Progress in attaining commercial viability 15.00 (Total 100).

Enabling conditions for Success of Governance Reforms

On the basis of the above analysis, it can be concluded that the performance of the Orissa power sector is not satisfactory. In this section, the factors that have contributed to the failure of reforms are discussed.

1. Absence of Political Will and Appropriate Policy Environment

The state has failed to provide an enabling environment to support and sustain the reforms in the power sector. It is evident from the study that the political parties and leaders have neither the vision nor the commitment to develop the power sector which is detrimental to the overall development of the state. First the state has no strategic planning based on a scientific study and existing ground realities to make reforms feasible and sustainable in the power sector. Even ground level factors like the law and order situation, the response of the officials, bribe, theft of electricity and opposition to reforms by employees' and consumer bodies are some of the factors that were not given adequate consideration when the reforms were planned and a framework of reform programme was outlined.

According to Panda (2002), "the reform started on a wrong footing. In the absence of an accurate data base relating to the privatised companies' asset base, income and expenditure and forecast of state economy in immediate future, an indicative tariff was of no use. The license condition

did not include the initial, ongoing and future investments (with associated risk) in the electricity sector”.

Secondly, the state failed to have a political consensus, particularly between the ruling and opposition parties on reforms in the power sector. The ruling party (Biju Janata Dal and BJP before 2009) accuses the opposition Congress Party for entering into 'wrongful' agreements with energy distribution companies that were responsible for the current problems like non-enforcement of the agreements and standards and to take a legal action against erring companies. The Congress Party, on the other hand, complains that the state government meddles with the private companies for pecuniary benefits. According to the proceedings of the Orissa State Legislative Assembly in June 2010, it was known that the Congress favoured power reforms but was critical of the manner in which it was being implemented. Many times the proceedings of the Assembly were stalled on the issue of poor quality of power supply and repeated power cuts.

Thirdly, the state has failed to bring effective coordination among the various players – government, regulatory commission, private entities, employees and consumers – to promote governance reforms. The government expects the private companies to expand and improve service in rural areas. On the other hand private companies are seeking government support and assistance to expand these services. They even demanded higher tariff from regulators but it was turned down during various tariff revisions. The government has not supported the private companies in ensuring law and order in the collection of tariff and in controlling power theft. Similarly, the government has retained the power of policy-making in relation to rural electrification and constrained the independent functioning of OERC to regulate private companies.

Fourthly, the state has failed to provide an environment conducive to the effective functioning of private companies. According to senior officials of private companies (AES and Reliance), “In the absence of a conducive environment, it would be very difficult to run power retail business in the state” and as such “the power distribution business is just not remunerative in the state,” (Interview taken for the study). This has ultimately compelled one of the distribution companies, AES Corporation, to abandon its operations in 2003. The remaining three distribution companies controlled by the Reliance Ltd., have already expressed their intentions to quit the distribution business.

Fifthly, the regulatory commission could not function effectively in disciplining the private companies since the state government has retained the policy-making powers. The IPP scandals and flouting of rules and regulations by distribution companies further undermined the authority of the regulator to protect public interest and ensuring quality service.

Sixthly, the officials are not responsive to the needs of the consumers. It was found that there was lack of response on the part of the officials to render timely service to the consumers. There is still demand for speed money. Inefficiency in metering, billing and collection reveals the poor work culture and lack of commercial enterprise on the part of the employees. Besides, officials have not developed the commercial culture required for the sector after privatisation (Rajan 2003 and Khilar 2005). The employees of the erstwhile SEB who got absorbed in private companies have shown more interest in their promotion, pay scale, pension and other facilities and opposed privatisation. They have not inculcated the commercial acumen and work culture required to cater to the needs and interests of

consumers. They have no motivation to immediately address billing, metering and mechanical (transformer burning) problems (Purkayastha 2006). Further, the old and complex administrative procedures and sanctions lead to further delays in processing complaints.

2. Civil Society

Lack of Social Support

The reforms have failed because there is no support from the civil society organisations such as consumer organisations/associations. Since the beginning, the neo liberal policies, including privatisation of the power sector, has been opposed by many organisations. They are of the view that distribution companies are interested in collection of revenue but not extending service to rural areas. Increase in tariff has not been accompanied by corresponding improvement in the quality of service. The Electricity Grahaka Manch, Orissa, backed by the CPI, has gone to the extent of telling consumers not to pay electricity bill till the distribution companies renew their agreement or license. Similarly, the NESCO Biduyt Grahaka Manch, particularly its convener Jayanta Das, had made an allegation against Reliance Energy for “exploiting 17 lakh customers in the NESCO areas and most of the villages are deprived of rural electrification” (The Statesman, 20.03.06).

The local mindset and people’s perception are important for the sustenance of reforms. Privatisation has been discredited by the people and civil society organisations because the quality of service delivery has not improved. This is the reason why there is a lot of opposition to the reform process. Public perception has also gone against the reforms because private companies have not taken interest in rural electrification. There are many instances where the consumers have locked up the electricity offices for poor quality of service.

Consumer associations face constraints in articulating their views and interests effectively due to lack of expertise on the technicalities of tariffs and other matters. Consumer organisations have failed to influence the government and private companies in addressing the problems like poor quality and accessibility of service and price hike.

The employees of the power sector have not accepted the reforms wholeheartedly. This is reflected in their resistance to reforms in different ways. Firstly, they are apprehensive about reforms. According to them reforms did not improve their service conditions including promotion opportunities and job security⁴. They have taken service matters to the Supreme Court of India. They even went on strike opposing the reforms⁵.

Conclusion

Thus, what is found from the study of the factors relating to the performance of the Orissa power sector is that the situation will not improve merely by framing policies and setting up institutions. Non-implementation of rules and regulations, prevalence of corruption, dominance of groups with vested interest and the political elite hinders the development process. In this regard the most pertinent example has been the case of land reforms in India. The land reforms were not implemented effectively because the officials implementing the rules felt that they would be the losers. The power sector cannot be seen in isolation from the overall development process of a country. It is intimately

related to Indian politics and involves the interests of many stakeholders like politicians, bureaucrats and consumers. The power sector, most often, determines the power of a political party because winning an election depends on how a political party or government deals with the power policy. Offer of free power to voters is a well-known strategy in Indian politics. From the case study of Orissa, these theoretical observations were found to be true in the case of power sector reforms.

The analysis of the factors have revealed that the lack of implementation of rules by the officials, employees' opposition to reforms and poor work culture, corruption at the distribution level, state apathy for the power sector etc., are some of the factors that have hindered reforms. These factors are not directly related to the performance of the sector but they have affected indirectly the outcome of the governance reforms. It is clear that in both cases of governance structures – one with state and other with market dominance – failed to produce the expected results.

Thus, the success of reforms depends not on mere change of ownership from public to private. It depends on so many factors like to what extent the stakeholders involved in the process are benefited and how the institutions implement the policies in reality. In this regard the question of state versus market is not important. The important question is how the institutions are effective in different situations, how policies are effectively implemented. In the power sector the performance of the SEBs deteriorated during 1980s. Some studies have found fault with the internal functioning of the SEBs like corruption, low work culture and delay in implementing power sector projects and advocated internal reforms. These factors have not been taken into consideration in the present reform programme. Now the reforms in the power sector have been advanced for financial reasons whereas these factors like accessibility, employees' issue and impact on the poor and disadvantaged have been neglected. The role of the government, the regulatory commission and user's forums, ground level realities and accountability of the policy implementing officials are equally important for the achievement of the desired objectives. The implementation of institutional norms and rules is vital for success.

Notes

¹ The installed capacity of the Indian power sector by the end of the year 2009 was 147965 MW. However, the power requirement projection in the same year was 794561 MW and by 2011 -2012 the requirement will be 968659 MW (www.indiastat.com).

² The total number of unelectrified villages in Orissa is 20994 and the figure for whole of India is total 106219 by the year 2008 (www.indiastat.com).

³ Every year an amount of Rs 20,000 crore is lost due to theft with technical and commercial losses (Report on India's Power Sector 2003).

⁴ A survey (Rao 2002) to assess the employees' perception of reforms found that 48 per cent of them felt that there was no improvement in working conditions while 40 per cent said that conditions worsened after reforms. Almost 70 per cent of employees felt that there was no improvement in pay and allowances after the reforms, 25 per cent felt that the situation was bad after reforms. Sixty eight per cent of the employees felt insecure about their future. The employees perceived power sector reforms as a blindfolded jump into the arena of uncertainty. The business model of Privatisation ⇒ competition ⇒ efficiency was perceived by the employees as Privatisation ⇒ competition ⇒ hire and fire policy ⇒ exploitation...

Promotions have totally stopped after the introduction of reforms and several employees are not sure about their promotion prospects. Many of the posts were declared surplus. As much as 37 per cent of employees felt that accountability has gone down after reforms while 47 per cent of them felt there was no change. Moreover, 25 per cent of employees felt that the training after reforms was good whereas 33 per cent of them felt there was no improvement, while 38 per cent of them were of the view that it was bad.

Only 1 per cent of employees felt that the new schemes were good, whereas 82 per cent felt that there was no change in other welfare measures. Various trusts like provident fund etc., have been formed for pension, but

without any opening balances. These liabilities are met out of current revenues. Employees expressed concern that if companies continue to suffer losses, they may not get even their terminal benefits. As many as 53 per cent of employees preferred not to take voluntary retirement.

- ⁵ Employees sometimes go on strikes and *dharnas* to oppose reforms. The National Coordination Committee of Electricity Employees and Engineers (NCCOEEE) demanded review of the Electricity Act 2003. Nearly 10,000 employees participated in the march. It went to the extent of marching towards Parliament. President of Electricity Employees Federation of India and president of Akhila Bharateeya Vidyuth Mazdoor Sangha, general secretary of All India Power Engineers Federation, general secretary of All India Power Diploma Engineers Federation, and convener of NCCOEEE demanded review of the Electricity Act 2003. They demanded that provision for cross subsidy be maintained and rural electrification, including its maintenance be the responsibility of the central and state governments. The interim report of the experts and the latest order of the Orissa State Electricity Regulatory Commission against the private distribution companies reveals the fact that unbundling and privatisation of Electricity Boards have not helped in any manner in the improvement of the power sector, on the contrary it hastened its deterioration (People's Democracy, 2003, Vol. XXX No. 12 March 19).

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