Privatization or Democratization

The Key to the Crises in the Electricity Sector

The Case of Maharashtra



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PRAYAS

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Contents

Preface

Part I

Electricity Sector in India: A Historical Review

Part II

Power Sector in Maharashtra: Crisis And Prescription

Conclusion

The Prescription of Democratization

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Preface

The current controversy over Enron's Dabhol power project in Maharashtra must be seen against the background of the debate over power sector reforms raging across the country and especially in the state of Maharashtra. This debate became vigorous when employees of the state-owned utility—the Maharashtra State Electricity Board (MSEB)—went on a four-day strike in July 2000. In November 2000, the state government announced its plan to unbundle MSEB and to introduce a new Electricity Sector Reform Bill in the winter session of the state's Legislative Assembly. This turned the vigorous debate into a bitter controversy.

Many ministers, officials, economists, international institutions (such as the World Bank), and people from the industrial sector who participated in the debate professed that reform—which often means privatization—is the only solution to resolve all the problems faced by the electricity sector. However, trade unions, consumer organizations, experts and researchers from NGOs, as well as the 'left' and environmental organizations have expressed grave apprehensions and pointed out many dangers in the process of

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privatization. Many of these opponents of privatization believe that, instead of handing over an important sector like electricity to profitseeking private firms, it is necessary—in a country like India—to retain it in the public domain, in order to hold it socially accountable.

Most researchers and experts who have studied the electricity sector agree that its problems are extremely complicated and deeprooted. Various powerful vested interests in society have contributed to the genesis and persistence of these problems. Irrational decisions, bureaucratic procedures, and ill-conceived systems of functioning that have fossilized during the last five decades have further aggravated these problems. In addition, the rapid pace of technological advancement in the electricity sector has posed new challenges and presented new opportunities. The consistent neglect over decades of all these problems has snowballed into a crisis-like situation, making the electricity sector in the state of Maharashtra highly vulnerable. Thus, what is required is urgent action on comprehensive solutions.

To resolve this crisis, the typical 'one-size-fits-all' type of solution such as 'privatization' or 'state control' will not be adequate. There is an emerging consensus that, in order to resolve this crisis, many fundamental and comprehensive changes will have to be effected in the electricity sector. While doing this, precautions must be taken to protect the public interest and to ensure that a few powerful elements do not capture the sector and that people's control or public control is firmly established on the governance of the electricity sector.

It also needs to be understood by all the stakeholders that every stakeholder will have to pay, in some or other form, for the mistakes committed in the past, which are at the root of the present crisis. Thus, without the commitment of and cooperation from all the stakeholders, the current crisis in the electricity sector cannot be resolved. Even if we succeed in resolving the current crisis, we cannot afford to be complacent any more. In the past, it was customary for people in this country to entirely rely on the government (i.e. politicians and bureaucrats) for making decisions about their future. However, in future, the decisions and functions of the electricity sector cannot be left entirely either to the government or to the market. Instead, people and various institutions and organizations in society will have to constantly remain watchful and participate in governance in order to ensure proper functioning of the sector.

In order to shoulder this responsibility effectively, institutions and organizations in society must acquire knowledge and information about different aspects of this sector such as the financial and technical aspects. In addition to research, analysis, public awareness campaigns, and political actions, courts and the newly created regulatory commissions will have to be used in order to safeguard public interest. In the era of reforms, this is the nature of the multi-faceted challenge faced by institutions and organizations working to protect and promote the public interest.

This booklet deals with the nature of the crisis faced by the electricity sector, available pathways for resolving this crisis, and the comprehensive and urgent changes to be effected in order to regain health of the electricity sector. We do not claim that this booklet presents the only or ultimate solution for eradicating all the problems faced by the electricity sector. On the contrary, our attempt here is to present to the public our analysis and the information we have and to participate in the efforts—shared by many—to initiate a debate on these crucial issues in the sector.

Accordingly, we will discuss here the crisis faced by MSEB, an analysis of the prescription of privatization suggested by the mainstream, and the alternative prescription that emerges from

4

our analysis. To facilitate this exercise, a history of the electricity sector in India has been given in some detail in the first section of the booklet. Finally, it needs to be mentioned that this booklet is meant for members of the public who are not well versed in the affairs of the electricity sector. For more detailed information on various issues discussed in this booklet, interested readers are requested to access technical and research literature prepared by Prayas Energy Group, which is available on its website: www.prayaspune.org.

Part I

Electricity Sector in India : A Historical Review

Achievements in the Post-Independence Period

Electricity is regarded as one of the most important inputs for development. Mainstream economists and engineers believe that the per capita electricity consumption is a good indicator of the extent (or level) of a country's development. For them, the country with higher per capita electricity consumption is further on the path of development. In the last five decades that is after independence planning and policy-making in the electricity sector in this country has been guided by this belief. As a result, the country achieved the objective of quantitative expansion of the electricity sector—a precondition for increase in per capita electricity consumption—to a fair extent. Table 1 presents a comprehensive picture of quantitative growth in various aspects during the period 1950 to 1999.

Table 1 Commendable Achievements of the Indian Electricity Sector

Parameter	Figures for 1998 – 99	Growth in last 50 year
Generation Capacity	94,000 MW	55 times
Number of Consumers	~ 7.85 crores	52 times
Number of Agricultural Pumps	~ 1.20 crores	571 times
Length of Network	~ 0. 5 crore kms.	172 times
Number of Villages Connected	More than 5 lakhs	163 times
Per Capita Annual Electricity	~ 340 (kWh) or units	22 times
Consumption		

Note: [a] 1 Lakh =100,000 and 1 Crore = 10,000,000 = 10 million

[b] ~ = indicates approximate figures

As the table indicates, there has been commendable growth in the generation capacity, the number of electricity consumers, the number of agricultural pumps, and the length of the electricity network. Along with this quantitative growth, the Indian electricity sector has also achieved qualitative growth. This is reflected in the advanced technological capabilities and large number of highly skilled personnel available in the country.

The Institutional Set-up

This quantitative growth was the outcome of various policies, institutions, legal structures, and administrative procedures that were created during this period. According to the Constitution of India, electricity is a 'concurrent' subject handled by both the central and state governments. Following this, a network of institutions was established at the state and central levels. The state electricity boards (SEBs) were created at the state level. These boards, owned by the state government, were semi-autonomous bodies according to the law. They were entrusted with the responsibilities of electricity generation and its supply in the state, while remaining within the broad legal and policy frameworks designed by the state and central governments.

At national level, an autonomous institution called the Central Electricity Authority (CEA) was created to provide techro-ecenomic expertise and advice to the SEBs. The Central Electricity Authority was the supreme authority in crucial techno-economic matters such as sanctioning of new power projects as well as inter-state electricity transfer and exchanges. In addition, under central government's jurisdiction, electricity generation corporations like the National Thermal Power Corporation (NTPC) and the National Hydro-Power Corporation (NHPC) were created under the jurisdiction of the central government.

Major Policies in the Electricity Sector

As mentioned, the commendable growth of the Indian electricity sector was the result of four broad policies. The first policy was 'government's ownership and supply of capital from central and state budgets'. The electricity sector is one of the most capital-intensive sectors. A huge amount of capital is required for its development and expansion. In the post-independence period, because private industry was not adequately developed to raise such a huge capital, it was argued (even by the private sector) that government should take up the responsibility of developing this sector. The sector was thus developed and expanded by providing capital from the budgets of central and state governments. For many years, about one fourth to one fifth of the total plan allocation from the central and state governments' budgets was directed to the electricity sector.

The second major policy was development of 'centralized electricity supply system' and of 'regional and national electricity grids'. Under this policy, large electricity plants like Bhakra-Nangal, Singroli, and Koyana as well as the five regional grids were developed. The third major policy was 'thrust on self-reliance in technology and fuels'. Under this policy, autonomous but government-owned companies like Bharat Heavy Electrical Limited (BHEL) were created to develop the necessary and advanced technological capabilities in the electric sector. Similarly, emphasis was laid on utilization of the available energy sources such as coal and hydro sources in the country.

Finally, the policy of 'cross subsidy' or subsidy from within the sector was adopted widely. The objective underlying this policy was to provide electricity at affordable rates to the deprived sections of society, especially farmers from backward, rural, and tribal regions. For this purpose, those who could afford higher rates of electricity were charged more than the average cost of supplying electricity and the surplus thus created was used to provide

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electricity at lower rates than the average cost of supply to the deprived sections of the society.

These four major policies were instrumental in achieving commendable growth of the electricity sector. However, this growth was only one side of the coin. The root causes of the various problems in the sector can also be traced to the functional failures of the same institutions and policies, which created this growth. Gradually, in the last two decades, these problems aggravated into a crisis-like situation, pushing the electricity sector to the brink of bankruptcy and disorder.

Functional Failures of the Electricity Sector

The current crisis in the electricity sector can be traced to four types of functional failure. The first is the techno-economic failure. As a result of these failures, techno-economic efficiency of the electricity sector did not improve as expected during this period. These failures are evident in three main areas: generation plants, the transmission system, and the distribution network. There has been a complete failure to implement measures to ensure efficiency improvements in generation, transmission, and distribution. In fact, instead of building new electricity plants if investment were made in efficiency improvement measures, then more electricity could have been made available at less expense. Another important example of techno-economic failure is the inability to keep capital investment needs at a lower level, by reducing the cost and time required for building generation plants and supply systems. This has resulted in phenomenal rises in time and cost over-runs for projects. One study indicated that, on an average, a project was delayed by more than three years resulting in costs increasing by more than half of the original estimate.

The second type of functional failure is policy failure. The most crucial failure in this type is the failure to devise appropriate tariff policy. Thanks to the policy of 'cross subsidy', economic and

political vested interests were created which thrived on cheap electricity. Over a period of time, instead of reduction in subsidy (and especially unnecessary subsidy), the amount of subsidy went up to unrealistically high levels due to pressure from these dominant political and economic vested interests. As a result, many of those who really needed the subsidy did not get it or got very little. On the other hand, many of those who did not need the subsidy managed to consume unreasonably high levels of subsidy, increasing the total burden of subsidies, which the electricity sector could not bear. Due to low electricity tariff, subsidized consumers did not have any incentive to avoid excessive use or wastage of electricity. Consequently, this excessive and unnecessary consumption and wastage of electricity not only resulted in increased demand for electricity, but also caused fast depletion of groundwater.

The third type of failure was legal and institutional failures. The central and state governments are legally obliged to allow autonomy to the state electricity boards. Instead of abiding by this legal provision, the SEBs were turned into departments of the state energy ministries. As a result, vested interests that exercised influence over state governments could control the functioning of the SEBs to secure economic and political benefits for themselves. The provisions in the Electricity Act aimed at ensuring protection of public interest and SEBs' accountability towards people were thus violated with impunity. Unrestrained interference by politicians in the functioning of SEBs at different levels became the norm. For example, politicians openly dabbled with the appointments of chairmen and members of SEBs or gave away large concessions in electricity tariff to certain sections of consumers to serve their own interests.

The fourth type was the failures in planning. The single-minded pursuit of the "hard-energy" path while planning for the sector which means laying emphasis on increasing electricity supply from huge and centralized plants, as well as on predominant use of conventional fuels (nuclear and fossil)—caused utter neglect of cheap and practical options such as efficiency improvement measures. This led to a continued preoccupation with expensive, environmentally disastrous energy projects that caused large-scale displacement of people.

From 1992 to 1994, Prayas developed a detailed, ten-year 'sector development plan' for the electricity sector in Maharashtra. This planning exercise included the study of nine measures for efficiency improvement and four options for distributed electricity generation. The study demonstrated that, if such options were utilized to fulfill the state's electricity demand, then there would be a 33% saving in capital expenditure compared to the official expansion plan. Moreover, the need for capacity addition through environmentally or socially undesirable centralized electricity generation plants could be reduced by 55%.

Crisis Faced by the Electricity Sector

These four types of functional failures introduced many distortions and perversions in the functioning of the electricity boards. These include, electricity theft, excessive levels of arrears, techno-economic inefficiency, financial indiscipline, corruption, and administrative lethargy. Unfortunately, governments (the owner of the electricity sector), employees' unions, consumer groups, and citizens in general did not take any effective initiative to improve the situation. As a result, during the 1980s and 90s, the performance and health of SEBs all over the country deteriorated fast.

The failures, and the distortions caused by these failures, led the sector into a crisis like situation in the beginning of the 1990s. The nature of this crisis needs to be properly understood. This crisis in the electricity sector has three important components. The first component is the performance crisis, which could be witnessed in the form of various distortions in the functioning of the electricity sector especially of SEBs such as the low efficiencies, financial disorder, and lethargic administration. It is unfortunate that most players in this sector (including some employees' unions) feel that these distortions in the functioning of SEBs are beyond improvement.

The second component is the financial crisis. It is well known that electricity boards are facing a severe financial crunch due to stagnant revenues, increasing expenditure, and increasing arrears. Moreover, the state and central governments that, until now, provided funds to SEBs are also equally cash-strapped. International financial institutions, fed up with the functional anarchy in the SEBs, gradually stopped providing them funds. In such a situation, it has become impossible for the SEBs to raise capital to construct generation plants and transmission and distribution (T&D) systems in order to fulfill the increasing demand for electricity.

The third component of the crisis faced by the electricity boards is the credibility crisis. The functional anarchy in the administration of the SEBs has reached such a level that the electricity boards have completely lost credibility in the eyes of consumers and common citizens. As a result, these once-admired institutions have become the butt of jokes and even the bureaucracy and politicians now want to get rid of this liability.

Though all these three components of the crisis are of equal importance, the main preoccupation of the mainstream leaders in the sector [viz., politicians, bureaucracy, mainstream economists, and engineers'] has been the financial crisis. This lopsided understanding on the part of the sector-leaders has been largely responsible for further aggravating the crisis.

Beginning of Economic Reform

When the era of economic reform suddenly arrived in the country in 1991, the electricity sector was already plagued by this three-dimensional crisis, but all the mainstream actors were looking

for a solution for the financial crisis alone. These sector-leaders suddenly found the magic wand of 'privatization'. The economic reforms that got underway provided them an easy way out to resolve the financial crisis in the electricity sector, by inviting private capital and opening the hitherto closed gates of the sector to foreign investors.

In the new era of economic reform, it was possible to make comprehensive changes in institutions, policies, and laws required to implement this solution of privatization. To implement the 'reforms' in the electricity sector, many fundamental and comprehensive changes were made in the laws governing the electricity sector, in the institutional structure, and in major policies and procedures. A very long list of such changes could be provided. However, considering limitations on this booklet, only three changes are listed here as illustrations. The fist example is changes made in the Electricity Supply Act of 1948 to allow entry of private capital. Second, various policies and procedures were changed which resulted in severely curtailing the role and authority of the Central Electricity Authority (CEA). Many of the functions and authorities of the CEA were delegated to the electricity boards, state governments, and newly created independent regulatory commissions. Third, the fuel policy was changed in a major way to allow import of oil and gas. Thus, with the beginning of the era of economic reforms, the three mantras of reform-liberalization, globalization and privatization-gained ground even in the electricity sector.

Entry of the Independent Power Producers (IPPs)

The first step in the 'reform' of the electricity sector was to allow the entry of electricity generating plants owned by private parties. To facilitate this, central and state governments made comprehensive and fundamental changes in various crucial aspects of governance such as laws, policies, institutions, and even in procedures. These changes had three important features. First, 'obstacles' such as permits and quotas were removed and SEBs and state governments were allowed to seek and sanction generation projects by dealing directly with private firms. These private firms owning power generation plants are known in the sector as Independent Power Producers (or IPPs).

Second, state governments and SEBs signed agreements with the private parties that gave guarantees of high levels of fixed revenue to the private firms, while shouldering almost the entire burden of various risks. Third, the central government started providing different types of assistance for these efforts by SEBs. For example, the central government gave the special status of 'fast track projects' to the eight IPP projects in different states and also gave counter-guarantees to these projects in the event of nonpayments by the state governments and SEBs.

Not surprisingly, these overtures from the state governments and SEBs received tremendous response from private firms. There was fierce competition among state governments for signing the maximum number of memoranda of understandings (MOUs) with private firms. Within the first three years, different state governments signed MOUs for creating capacity of approximately 90,000 megawatts. It is worth noting that, at that time, generation capacity in the entire country was only 80,000 megawatts! The pace of signing the MOUs was such that they were being signed at the rate of 90 megawatts of capacity on every working day!

However, from these, only a few projects could reach the next stage. It is estimated that the total generation capacity that would come on-line by the year 2005 is about 8,000 to 10,000 megawatts. It is often said that these projects were hindered by bureaucratic red tape. However, it must also be noted that many of the firms signing these MOUs were simply incapable of developing power projects. Most of the IPP projects also suffered from the usual

problem faced by projects in developing countries—excessively high project costs. This is in complete contradiction to the received wisdom that because many costs, especially labour costs, are considerably low in developing countries, project costs would be similarly low. The accompanying table (Table 2) presents the average costs of the power projects based on the CCGT (Combined Cycle Gas Turbine) technology in different parts of the world.

Table 2:

Capital Costs of the CCGT Projects (between April 1994 to April 2000)

Region	Total Capacity in MW	Average Capital Cost in \$ per kW
North America	24,831	573
Australia and Asia Pacific	3,288	615
Latin America	16,098	703
Western Europe	23,003	750
Middle East	12,823	793
Eastern Europe	3,632	796
South East Asia	14,814	803
Indian Subcontinent	13,299	875
Africa	538	923

Note: Prayas calculations based on database search and analysis conducted by the World Resource Institute using 'Capital Data Project Ware'

Further, there were some fundamental flaws in these efforts to attract IPPs. Two important preconditions for the smooth running of these projects remained neglected by the IPP policy: (a) uninterrupted supply of fuel and (b) getting timely payment from the SEBs for the electricity supplied to them. Supply of (especially indigenous) fuel was mainly dependent on the efficiency of various government agencies (like Coal India and Indian Railways), which themselves were performing badly. Moreover, SEBs were not economically and financially healthy and hence, were incapable of making adequate and timely payments for the electricity purchased from IPPs. As a result, the lenders did not find the government guarantees and counter-guarantees to IPPs as adequate security against non-payment by SEBs.

These two major obstacles should have been eliminated before getting onto the IPP route. In addition, because of the undue secrecy maintained during sanctioning of these projects, an atmosphere of distrust and suspicion was created surrounding these projects, sparking off political and legal actions and controversies.

As a result, in the initial period of reforms, instead of any improvement in performance, all the attention, time, and resources were invested in attracting the IPPs, instead of seriously trying to improve the functioning of the SEBs. This only resulted in the continued deterioration of the state electricity boards, which was accelerated in Maharashtra with the advent of expensive private projects like Enron. This opened the way for multinational and international lending institutions like the World Bank and DFID (Department for International Development of the U.K. government) to gradually gain a strategic advantage.

Increasing Influence of the World Bank

The World Bank is, in a way, a seasoned player in the Indian electricity sector. From the 1960s, it has been providing loans on a large scale to SEBs as well as to NTPC. As a lender and a "development" institution, it was constantly pressing for improvement in the functioning of the SEBs. As the SEBs continued to deteriorate, the World Bank started demanding stiff targets for improvement in their functioning as a condition for loans. When this strategy failed as the conditions were not fulfilled, the World Bank resorted to the extreme measure of canceling six loans given

to SEBs (this included a loan to MSEB). This did not bring about any improvement in the situation either, so, slowly, in the beginning of the 1990s, the World Bank reached its current rigid position that privatization would be the precondition for any financial assistance to SEBs.

According to the position of the World Bank , the crisis in the government-owned SEBs has reached a stage where it is uncontrollable and the only way to save the electricity sector is to replace the SEBs by privately owned electricity companies. However, the failure to reform SEBs is not the only factor that prompted the 'market-fundamentalism' adopted by the World Bank. In fact, various political and economic developments at the international level have played a key role in shaping this position of the World Bank. After the fall of the Soviet Union, the USA and other nations established a clear domination in the 'unipolar' world. One of the manifestations of this dominance is the wide-scale acceptance of the mantras of liberalization, privatization, and globalization (LPG). The World Bank and the International Monetary Fund have been the chief proponents and leading campaigners for LPG.

At this time, the state-level politicians who controlled SEBs found themselves in a peculiar situation. They had to face public wrath caused by the rising electricity tariff and the deteriorating standards of consumer service of SEBs. At the same time, the benefits and advantages that they used to draw through their control over the SEBs started dwindling due to the deteriorating condition of the SEBs. As a result, the electricity boards became political liabilities, which they were keen to jettison after squeezing out the last drop of juice even during the handing-over process. It was the willingness of state politicians to loosen their control over the poorly performing SEBs, that strengthened the position of the World Bank and allowed it to acquire a strategically key position in the electricity sector and start dictating terms in many states. The politicians, even though they found themselves in this unenviable position, tried to get maximum benefits and to keep their control over the sector as far as possible. At the moment, in order to get from these politicians the badly needed political legitimacy for its agenda of privatization, the World Bank appears to be ready to make some (albeit temporary) compromises with these politicians.

It is thus important that we gain an in-depth understanding of the model of electricity sector privatization (often called reforms) and the strategies adopted to disseminate and implement it. It is equally important to analyze implications and consequences of privatization for the economy and people. [Some of the structural issues have been discussed in a detailed and comprehensive manner in the following separate paper by Prayas, viz., 'WB-Orissa Model of Power sector Reforms: Cure Worse than Disease' (published in *Economic and Political Weekly* dated 25th April 1998). [The paper is available on Prayas websitewww.prayaspune.org]

Word Bank's Orissa Model

A new coalition started taking shape from 1994. This is the coalition between, on one side, the state and central level politicians—who have come under pressure due to the financial crisis faced by SEBs—and, on the other side, the World Bank.The Bank was, despite its previous bad experience of state governments, willing to enter into (possibly a temporary) compromise with the state governments for promoting its 'LPG' agenda. The first manifestation of this emerging coalition was in the form of the World Bank promoted comprehensive electricity sector reforms in Orissa. Therefore, the broad model adopted by the World Bank for electricity sector reforms in India is called the 'Orissa Model'.

Due to the immense political and economic power of this new coalition, the Orissa Model spread very fast in many parts of the country. Following this model, the Asian Development Bank (ADB) also started working with state governments in Gujarat and Madhya Pradesh for structural reforms in the electricity sectors of these states. By now, more than half the states in the country have adopted some variant of the Orissa Model for electricity sector reforms.

Under the leadership of the late Mr. R. Kumaramangalam, who was a staunch advocate of reforms in the electricity sector, the Union Ministry of Power enthusiastically facilitated and pushed for the spread of the World Bank's Orissa Model in other states. In 1997, the first draft of the central bill for electricity sector reform was introduced. Some provisions in the draft were found by politicians governing the states to be harmful to their interests. As a result, in the then prevailing political situation, this bill was put on the back-burner for some time.

In 1998, after deleting these unacceptable provisions, this bill was passed and enacted as the "Electricity Regulatory Commissions' (ERC) Act 1998". The Act leaves two important issues to the discretion of the state governments—the timing of formation of the state regulatory commissions and the powers to be delegated to these commissions. However, the Act had provisions to give the boards substantial powers for determining electricity tariff to these commissions.

The states of Orissa and Andhra Pradesh were in the forefront in implementing the World Bank's model. Different issues and problems have emerged while the model is being implemented in these two states. Other states can and need to learn many lessons from their experiences. One of the most important lessons that emerged from Orissa's experience is that the process of privatization of SEBs is a time- consuming process and the projected gains of privatization do not accrue fast. In Orissa, four years after the privatization process has been initiated, the transmission and distribution (T & D) losses have remained at the same level (more than 40%). As a result, the independent regulators did not find it appropriate to allow the tariff hike to be as high as demanded by the utility. As a cumulative effect of the high T&D losses and low level of tariff hike, there was a serious financial crisis in Orissa's electricity sector. To save their beloved progeny from this crisis, the World Bank and the Government of India had to chip in a few hundred crores of rupees to tide over unexpected cash-flow problems.

In the process of privatization, various structural flaws have also crept into Orissa's electricity sector. For instance, while privatizing the distribution system, the state was divided into four regions. Distribution companies in three regions were sold to a single company, viz., Bombay Suburban Electricity Supply (BSES). Neither BSES nor any other company was ready to buy the government-owned distribution company in the fourth or central region. This was because that state government had already signed an agreement (called an escrow agreement) with an American electricity generating company called AES Inc. giving the company the first right to access revenue collected from the central region. As a result, nobody was ready to purchase the distributing company in the central region. In the end, the state government and the World Bank were compelled to sell the distributing company in the central region to AES.

To improve Orissa's electricity sector, the World Bank wanted to break the monopoly of the state and to bring in competition. In the process, it ended up thrusting private monopolies on the people of Orissa. In electricity distribution, BSES has established a horizontal monopoly over three-fourths of the state, while in the central region, AES has established a vertical monopoly in electricity generation and distribution in the region. The people of Orissa will have to suffer due to these structural flaws at least for

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the next few decades. This clearly demonstrates that the World Bank and state governments—who were initially promising that they would take utmost care to avoid unintended bad effects of privatization—in reality, are ready to compromise on their own principles for implementation of their agenda of privatization. This also indicates that, in reality, all the promises—made by supporters of privatization—of protecting public interest (through various safeguards), would be blatantly ignored to fulfill the objective of privatization of the sector, if necessary.

In addition to such structural flaws, another crushing burden was placed on the common people of Orissa during the process of privatization. While selling the state-owned utilities to private firms, with the intention of earning maximum possible profits, the state government imposed an additional burden of Rs. 2000 crores on electricity consumers in Orissa by increasing the sale value of the SEB through the mechanism of 'asset re-evaluation'. At least for the next two decades, the private companies will charge heavy tariff for recovering this additional price they paid to the government. Unfortunately, very little of this additional revenue was used to improve the sector.

In Andhra Pradesh, the coalition of the 'cyber-age' chief minister and the World Bank, started implementing reforms in a high-handed manner. Neither the chief minister nor the World Bank—experienced any need to take the other 'stakeholders' into confidence. The opposition parties, people's organizations, consumer organizations, employees' unions, and farmers' organizations were systematically and purposely kept at bay. This coalition started using various pressure tactics for implementing electricity reforms. Members of the state legislative assembly (known as MLAs) belonging to opposition parties were summarily suspended when the electricity reform bill was passed in the state legislative assembly. Unfortunately, the independent state regulatory commission created by the World Bank, which is being seen by some as a pawn in the hands of this coalition, seems to have lost all its credibility with the people and civil society organizations in the state. The commission is accused of neglecting even the mandatory provisions related to transparency, accountability, and participation in its proceedings It is alleged that the commission allowed to keep secret the documents highlighting irregularities on the part of the state government and thus helped the politicians who were benefited by these deals. As a result, when the regulatory commission—that apparently has lost its credibility in the eyes of people—declared a tariff hike following the World Bank's dictates, the entire state erupted in political turmoil. Incidentally, the government was saved because of the flash floods in the city of Hyderabad, which dampened the tempo of the struggle.

Despite all these developments, the World Bank, the American and other foreign governments, and some mainstream economists in India have been complaining that the state governments in India are not carrying out electricity sector reforms (which, in clear terms, means privatization) with the necessary vigour and speed. Under such pressure, the Government of India (GoI) has prepared the 'Electricity Bill 2000' as a step towards total and rapid deregulation of the electricity sector.

The task of preparing a draft for this Bill was given to a consultant. The consultant started publishing revised drafts of the Bill one after another, arranging workshops, and securing comments of the experts from the government and industrial sector. In a few months' time, this consultant prepared six successive revised drafts of the Bill. Before people could read the earlier draft completely, they had to face the next draft. As a result, though these drafts were said to be discussed widely and at length, in reality, consumers and civil society organizations were given no opportunity to study them and register their comments and opinions.

Most importantly, what was made public was the draft of the bill, which is essentially an instrument for implementation of various complex and intertwined policy decisions. In the rational decisionmaking process, there are three important steps: (a) problem identification and articulation, (b) options' assessment, and (c) detailed articulation of chosen option along with risk assessment and contingency plan. The policy decisions inherent in the bill should progress through this process and, at every step, a document—giving full information—should be published so that public can meaningfully participate at every stage of the decisionmaking process. In effect, discussion only on the bill pre-empts proper public debate on the policies involved.

Moreover, the Ministry of Power (MoP) took the fourth draft prepared by this consultant and started making improvements in it in an independent and secret manner. Still, this consultant prepared two more drafts and circulated these to experts from the sector. The revised draft prepared by the ministry is obviously not available to people. Thus, government is now ready to present a bill in the Parliament, which has been prepared with the usual secrecy and without taking people into confidence and without. Further, as usual, any detailed analysis of the various provisions in the bill has not been carried out, which is necessary to envisage their implications and impacts and prepare for suitable responses accordingly. When this bill is converted into an Act, all the present laws in the electricity sector will be abolished. People and civil society can only speculate what their fate will be once this new Bill is enacted.

The crisis in Maharashtra's electricity sector, its impact, suggested remedy of privatization, as well as the growing resistance to privatization from various quarters and the alternative measures suggested to resolve the crisis, all need to be studied in the broader national context, which is described in this section. In fact, the crisis and other developments in the state of Maharashtra are parts of the ongoing process at the national level and have to be understood in that context.

Part II

Power Sector in Maharashtra: Crisis And Prescription

Maharashtra State Electricity Board: A Brief Historical Review

In Part I, we have seen the initial progress of the SEBs in India as well as the current crisis they are facing. It was inevitable that the power sector in the state of Maharashtra was affected by various developments at the national level. Being part of the Indian power sector, MSEB followed a somewhat similar path as the other SEBs.

The Initial Phase of Progress

The state of Maharashtra was created in 1960. In the subsequent years, MSEB made significant progress as compared to the other SEBs. It should be noted that this progress was achieved in spite of the fact that an industrial mega-city like Mumbai was not included in the service area of MSEB. Some statistics will be useful to demonstrate the size of the current operations of MSEB.

The current installed capacity of MSEB is 9710 MW. In Maharashtra, the length of the high voltage grid is 50,000 km. By 1989, all the villages in the state—numbering about 39,500—had been connected to the grid. All the hamlets of the Harijans in the state have been connected. At present, MSEB has, in all, 1.25 crore (i.e., 12.5 million) consumers, consisting of approximately 22 lakhs (2.2 million) agriculture consumers and about 90 lakh (9 million) domestic consumers. MSEB is often ranked highest in the SEBs in performance. The annual turnover of MSEB in the year 2000-01 amounted to Rs. 12, 500 crores, which is the highest among all SEBs, and is equivalent to the annual budget of some medium-sized states in India.

24

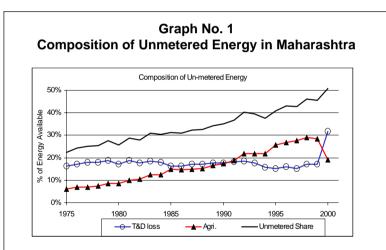
Emergence of Failures and Distortions

While this significant progress was being made by MSEB, various failures and distortions mentioned in the foregoing section gradually crept into the board's functioning. We can see the effect of these distortions in different ways. Almost 25% of households in Maharashtra still do not have electricity. At the same time, those who are connected to the MSEB grid are unhappy with the frequent supply failures, erratic voltage fluctuations, and poor service from MSEB staff. Let us now look into the roots of these problems.

Around 1977-78, MSEB started charging its agricultural consumers (for consumption of electricity by their electrical pumps) on the 'flat-rate basis,' instead of charging them for their actual metered consumption. This flat rate was fixed on the basis of the capacity (horsepower) of the pump. At the time, the number of agricultural consumers and the volume of the electricity used by them were quite small. As a result, the decision to stop metering their electricity consumption did not prove disastrous. The subsequent years saw a rapid increase in the number of agricultural pumps and also in their electricity consumption, which still was not metered. In the same period, like other SEBs, MSEB too fell prey to the various distortions such as technical incompetence, financial mismanagement, administrative lethargy, political interference, electricity theft, and increasing arrears.

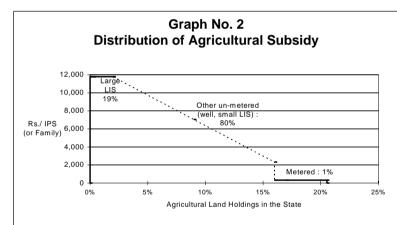
The MSEB officials, who enjoyed the patronage of some politicians, cleverly used the fixed rate system to hide the impact of these functional distortions. Apart from the electricity used by agricultural consumers, the electricity lost due to theft (known as commercial losses) as well as due to technical causes (known as technical losses) was not metered. This allowed the officials to attribute both these types of losses (i.e., all the commercial losses and a part of the technical losses) partly to the account of the electricity used by agricultural consumers. As a result, in the official statistics, over the years, there has been considerable increase in the consumption of agricultural consumers as well as in the proportion of unmetered electricity due to the theft and excessive technical losses, which grew at a faster rate but were not acknowledged in the official statistics.

In the year 1998-99, according to official statistics, the percentage of unaccounted electricity rose to about 45% (from about 23% in 1975) of the total electricity produced, and the consumption by agricultural consumers rose to 30% (from about 8% in 1975) of the total electricity used (Refer Graph 1). However, during the years 1975 to 1998, the technical losses remained in the range of 18% to 20%. In the subsequent discussion, we will see how this fraud was exposed in the year 2000.



The graph shows how MSEB's unmetered consumption increased over the years. The fixed-rate tariff for agricultural consumption was initiated in 1977-78 after which the figure for agriculture consumption rose sharply. This fraud was exposed during the public hearing before the MERC only in 1999-2000. At the time, MSEB accepted that agricultural consumption was just 18% instead of 30%, and transmission and distribution (T & D) losses amounted to 31%. Out of this, the T & D losses that could be avoided (i.e., electricity theft plus excessive technical losses) were equivalent to savings of Rs. 2,500 crores per year.

Another negative impact of the flat-rate system was that the consumption subsidy given to agricultural consumers was cornered by a limited number of farmers who were using excessive electricity to grow crops (such as sugarcane) that were fed with excessive amounts of water. A study conducted by Prayas during 1995-96 showed that about two to three per cent of the total number of farmers in the state—who were members of large lift irrigation schemes (LIS)—cornered a substantial portion of the subsidy given to agricultural consumers (Refer to Graph 2). Each farmer from this group received an average subsidy of Rs. 12,000 per year. It needs to be noted that about 80% of farmers in the state, who did not have electric pumps, did not receive any subsidy.



This graph shows extreme disparity in distribution of the consumptive subsidy provided to agricultural consumers, which is a consequence of the fixed-rate tariff. As the graph shows, the major portion of the subsidy was cornered by about two to three per cent of the total number of farming households in the state. The farmers who were paying according to the metered tariff were getting very little subsidy, while 80% of the farmers in the state who did not have agricultural pumps were not benefiting at all. It is difficult to discern from the available government statistics, further distribution of 80% of the subsidy. (This graph is based on a study by Prayas Energy Group published in *Economic And Political Weekly*, dated 21st December, 1996.)

Journey towards Crisis

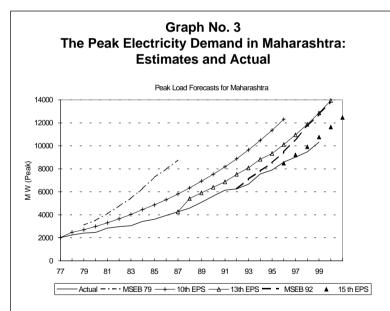
The economic and financial situation of MSEB started deteriorating due to these failures and distortions. In the four years between 1995-96 and 1998-99, the state government had paid a total subsidy of Rs. 1500 crores to MSEB. However, the government subsidy for the single year of 1999-2000 rose to Rs. 1300 crore.

In the beginning, this deterioration had no visible impact on the expenditure from the current account. However, it soon started affecting capital investments. Although there was consistent increase in the demand for electricity, there was a simultaneous decrease in investments for expansion of capacity coming from various sources.

Earlier, these investments were coming from three sources. The first was the internal financial resources raised by MSEB, which dried up because of its deteriorating financial condition. The second source was budgetary support from the state and central governments, which was also affected because the financial condition of both the governments was equally precarious. Various Indian and foreign financial institutions, especially the World Bank, was the third source for MSEB's investments. But, in view of the functional distortions and deteriorating financial conditions of the MSEB, the World Bank also started exercising tighter control over the loan amounts and putting more severe loan conditionalities.

Further, as a result of mismanagement and its precarious financial health, MSEB's credit rating declined considerably making it impossible to raise investments even from the open money market. By the end of the 1980s, the effects of the functional distortions had become visible. Even the leaders in the electricity sector, who hitherto had been taking an ostrich-like view, started experiencing the financial crunch.

One important point needs to be noted in this context. For decades, it had been the normal practice for SEBs to inflate the electricity demand projections in order to secure maximum possible allocation from government budgets. For example, the VIII th Five Year Plan document had estimated 20% electricity shortage at the end of the plan period, in spite of an additional generation capacity of 30,500 MW during the period. However, in reality, only 16,500 MW were added. However, the actual shortfall still remained at 18% (please refer IX th Five Year Plan Document). The accompanying graph (Graph No. 3) shows a major discrepancy between the estimated and actual electricity demands that continued for decades.



This graph shows the difference between the official forecasts of peak electricity demand and the actual demand from time to time. The graph clearly indicates that the demand estimates made by MSEB at the time of the Enron agreement (MSEB 92) were inflated by about 2000 MW, which is almost exactly equal to the total capacity of the project. This gave rise to allegations of tampering with the demand estimates to justify the project.

Thus, inflated demand projection, expensive mega power projects to fulfill this inflated demand, unrealistic and exaggerated demands for investments in these mega projects, powerful political and economic vested interests in these expensive big-budget projects that allowed, facilitated, and protected the practice of inflated demand—all these factors created a vicious cycle. Gradually, this cycle was further consolidated as it started providing huge benefits to powerful vested interests. Various well-known measures to break the links in this vicious cycle-such as ensuring realistic demand projection, reducing need for capacity addition by adopting conservation and demand side measures, and going for least cost options for generation-were simply ignored and never implemented. Thus, the spectre—partly a fact and partly a bogey created by vested interests-of capacity shortages and financial crunch began dominating the thinking and actions of leaders in the sector.

The Enron Project: Impact on the State Electricity Sector

Against this background, the ill-famed Dabhol project of the US multinational Enron came onto the Maharashtra scene. What happened in the case of the tortuous controversy over this project is matter for a separate book (or rather books). Hence, the controversy is not discussed in this booklet. However, the salient impacts of the project on the state electricity sector need to be mentioned.

The project—comprising the completed Phase I and the incomplete Phase II—resulted in speedy precipitation of the financial crisis in the state electricity sector. It became clear in the year 2000 that, even if only Phase I of the project was allowed to continue, MSEB and the state government would both go bankrupt. Apart from this financial impact, this first brush with a private energy corporation also influenced the momentum towards electricity sector privatization in the state, effectively slowing it down considerably.

This also provided time and impetus for MSEB to gather itself and push for improving its functioning.

Second Rajadhyakshya Committee

Even as the dispute and development of the Enron project was going on, the functional deterioration of MSEB continued. As a result, it was not able to comply with the loan conditionalities laid down by the World Bank. It is said that this state of affairs led the MSEB to submit false statistics to the World Bank. Consequently, the World Bank had to resort to the extreme measure of canceling the loan in 1996.

Instead of learning a lesson from this setback and working on an action plan to address the distortions, the state government chose to appoint another committee known as the second Rajadhyakshya Committee in 1996. This committee, in its final report, made 33 suggestions. Of these, 31 were related to improvements in the functioning and administration of MSEB and the state government, while the remaining two recommended a broad-based, comprehensive public debate before privatization.

For a long time, the report was ignored by the state government on the excuse that it was being scrutinized. Then, citing the report, the state government tried to promote privatization of the power sector as the remedy for the worsening situation. Finally, in the year 2000, as a result of a directive from the Maharashtra Electricity Regulatory Commission (MERC), the government was forced to prepare and make public the 'Action Taken Report' (ATR) on the Rajadhyakshya committee report. The ATR clearly mentioned that the state government rejected most of the committee's recommendations related to improvements in the functioning of MSEB and the state governments.

Proceedings before the Maharashtra Electricity Regulatory Commission

During this period, as mentioned before, the neglect of distortions in MSEB's functioning continued. The politicians in power chose not to act hoping that the new magic wand of Enron would take care of all the problems before the sector. However, the problems could not be wished away. Drastic tariff hikes in successive years became inevitable due to further deterioration in the economic and financial condition of MSEB.

As a result, some industrial consumers went to the High Court objecting to the excessive and unjust tariff hikes. The court ordered the state government to desist from announcing such unilateral tariff hikes, and gave it two options: either appoint a state electricity regulatory commission following the central law (viz., Electricity Regulatory Commissions [ERC] Act 1998), or present the tariff hike proposal to the High Court.

This strict and unambiguous court order forced the government to appoint the Maharashtra Electricity Regulatory Commission following the ERC Act.

MERC's First Order on the Tariff Hike Proposal

In August 1999, before facing the elections, the then state government set up the Maharashtra Electricity Regulatory Commission. After the state assembly elections and establishment of a new government, MSEB put up an application proposing increase in consumer tariff (henceforth referred to as a tariff hike proposal) before MERC for the year 1999-2000. In fact, it was discovered that the same proposal had been submitted to the state government for consideration in January 1999 but due to the approaching elections, the government had not taken any action throughout the year.

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After receiving a copy of the proposal, Prayas discovered that the information and data supplied with the proposal was highly insufficient. MSEB had submitted a 20-page proposal containing insignificant information while requesting revenue of about Rs. 12000 crores (1 crore =10 million) for one year. Further, the accompanying information did not elaborate on many important issues.

Realizing this, Prayas filed a case before MERC and convinced it of the need for detailed information on 11 different issues. Prayas argued that, unless detailed information on these issues was provided by MSEB, it was impossible to assess the various claims and demands made by MSEB. This, Prayas argued, would affect citizens' legal right to participate in the process.

In the end, MERC accepted Prayas' arguments and directed MSEB to provide all the information requested. During the next month, Prayas received most of the requested information from MSEB and made it available to different civil society institutions. MERC, on receiving the tariff proposal, had called for suggestions and objections from the public. In response, more than 450 individuals and institutions from Maharashtra submitted their representations. Members of MERC went to six regional headquarters in the state and conducted public hearings. Thereafter, MERC organized 'technical validation sessions' for scrutinizing the information and data submitted by MSEB in support of the proposal. In these sessions, Prayas made presentations on the basis of its own analysis, pointing out many deficiencies and drawbacks in the proposal and in the supporting data.

The most startling deficiency was that the electricity theft and high level of technical losses were concealed under agricultural consumption. This detailed scrutiny proved that the MSEB statistics were incomplete in many ways, in addition to being false and erroneous on some counts. In all, six such validation sessions were conducted in a period of nine days. During these sessions, MSEB was forced to change its statistics three times. This resulted in drastic changes in the statistics supplied with the original proposal. Prayas appealed to MERC to direct MSEB to submit a fresh proposal. MERC ordered MSEB to withdraw the proposal and submit a new one for the year 2000-01. The new revised proposal (this time 525 pages long) was validated and published. The public participation process (i.e., submission of written comments and public hearings) was repeated once again.

In the revised proposal, MSEB accepted that the T & D losses amounted to 29 % and requested increased revenue (i.e., tariff hike) amounting to approximately Rs. 2,000 crores. Considering the various analyses and suggestions put forth by different individuals and institutions (including Prayas), MERC gave a detailed 150-page order on the first tariff hike proposal from MSEB.

In the order, MERC estimated that the total T & D losses in the MSEB system were about 31%, out of which about 21 % were technical losses while the remaining 10% were commercial losses (i.e., theft). It ordered MSEB to reduce the percentage of total losses in one year to 26 %. While dealing with the request for revenue increase, it ordered MSEB to collect revenues worth Rs. 600 crore by reducing electricity theft and technical losses. In addition, it suggested cost reduction of Rs. 100 crore through controlling of employees' expenses. MERC disapproved the miscellaneous expenses claimed by MSEB amounting to Rs. 300 crores. Finally, MERC permitted revenue increase through tariff hike amounting to about Rs. 750 crore instead of Rs. 2000 crore.

However, it needs to be noted that if MSEB fails to bring down losses to 26%, the state government will have to make good the amount. This means that eventually tax-paying citizens will be making up the loss. Thus, if MSEB does not improve, the only

34

choice available to citizen-consumers who honestly pay their taxes and electricity bills will be between a tariff-hike and a tax-hike. The only way to escape this Hobson's choice is to pressurize the

Prayas made all possible efforts to contribute effectively to the open, participatory process initiated by MERC. It carried out detailed analysis of the proposal from MSEB, collected data through various means and made it available to the public, helped the other civil society institutions in their analysis, and participated and intervened in the technical validation sessions. It made an extra effort to make available its own knowledge-base, information, analysis, and insights to other civil society institutions. During the course of the process, Prayas made six written submissions and four oral presentations to MERC, based on its own analysis. The written submissions amounted to 60 printed pages. All these documents are available on Prayas' website.

government and MSEB to implement MERC's recommendations.

Importance of the Participatory Public Process

The public participation process carried out by MERC is extremely important for various reasons. The most important reason is that, instead of the hitherto covert and secret manner, the process of decision-making on the tariff hike was carried out in an entirely open manner before the eyes of the public. It helped to bring to the notice of people the true picture of the distortions and perversions in the functioning of MSEB. For example, the process helped to ascertain the true scale of T & D losses, thefts, and agricultural consumption. During a similar process in another case, the decision-makers had to admit that the true tariff for power purchase from Enron was much higher than the claimed figures of Rs. 1.80 or Rs. 2.4. (Unfortunately there is no mechanism available to people to hold responsible those who colluded with Enron to mislead the public on these counts on the floor of the legislative assembly or before the High Court.) Prayas Energy Group

Due to various provisions in the order passed by MERC, there is, and will be, continuous monitoring of the functioning of MSEB, and the financial impact of the functional distortions will first show up in the account books of the government and MSEB. They will be able to pass these impacts ultimately to people but only in a transparent manner. A majority of MSEB officials and employees (excluding certain "respectable" expectations) responded to the MERC order in a very positive way. Many employees and officers took the criticism of MSEB made during the public process as a challenge and started working hard towards achieving the goals set by MERC. However, even today, MSEB suffers from continued political interference while consumers suffer due to corrupt employees.

There certainly are some lacunae and shortcomings in the public process carried out by MERC as well as in its order. For example, there was no proper and adequate representation of concerns and interests of the small farmers from drought-prone areas. Neither did the process have representations of those who are currently non-consumers (those who do not have an electricity connection at home or in the field). In addition, the rate of agricultural tariff hike decided by MERC is certainly a matter of concern. It is necessary that, while deciding the rate of tariff hike, its implications for the dependent livelihood activities (in this case agriculture) needs to be considered. Hence, instead of a singular action of stiff tariff hike, there is need for developing a comprehensive action plan for increasing productivity and efficiency of these dependent enterprises in whatever manner possible. This will minimize conflicts in tariff rationalization and its adverse effects on the economy and society. This aspect is not considered in the required depth in the MERC order.

In spite of these shortcomings, the process is crucially important because it proves that such a comprehensive, transparent, effective process with the participation of competent

36

and capable civil society institutions can be conducted without sponsorship of outside institutions such as the World Bank. Common people and various civil society institutions participated in this process and put forward their opinions, analysis, and suggestions in a capable manner. This was a detailed process with wide participation. However, contrary to apprehensions expressed by many, it was not very time-consuming, nor did it fall prey to unwarranted litigation. Though the order was somewhat tough (if not harsh) on many sections of consumers-especially on the politically strong sections such as the farmers, power-loom owners and residential consumers-there was not even a semblance of violence. This is in sharp contrast to what happened in the state of Andhra Pradesh where the non-transparent, nonparticipatory decision making process, the allegations of corruption and political interference against the regulatory commission, led to large-scale street violence in protest against the tariff order of the commission. Andhra Pradesh implemented reforms under the active and close supervision of the World Bank, DfID, and their consultants. In short, the success of the public process in Maharashtra leads us to the conclusion that, the rational resolution of complex and convoluted problems-with minimum conflict and strife—is possible if all sections of society are allowed to participate in an open and transparent decision-making process, conducted by a truly impartial and accountable body.

Unbundling and Privatization of MSEB: A Critique

Once the public process before MERC showed the people of Maharashtra the true state of affairs in MSEB, there was a consensus that improvements in the functioning of MSEB should be a top priority. Even large sections of management and employees of MSEB shared this consensus. As a result, there was renewed enthusiasm within MSEB to take on the challenge of improving its functioning. However, very soon, this emerging positive atmosphere received a severe blow.

Privatization and Unbundling: A New Storm

In June 2000, the chief minister returned from a trip to the USA. Following the advice that he received there and on the basis of the assurances given to him, he announced urgent steps to privatize MSEB. This announcement struck a severe below to efforts to improve MSEB's functioning. The debate for and against privatization started raging again. Officials and employees who had shown a positive attitude and who had started working on improving MSEB were demoralized. Finally, the employees' unions declared a strike. While the employees were preparing for the strike, the top management of MSEB was working hard to break the strike and bulldoze the privatization process through. This left hardly any time for anybody to pay attention to the urgent and important measures required for improving the functioning of MSEB. As a result, MSEB was pushed once again into the vortex of rudderless uncertainty.

Thirteen employees' unions declared an indefinite strike from 25th July 2000 to oppose unbundling and privatization of MSEB. The common people suffered badly and reacted quite strongly to this strike. Under public pressure, the unions had to call off the strike after just four days. Representatives of employees' unions as well as the state government had expressed their commitment to the following two causes during the debate over the strike, viz., the future of MSEB and protection of the public interest. Although these issues were critical and required continued attention, after the strike they were forgotten by both parties. The public debate that started at the time of the strike died a premature death after the strike was withdrawn. In order to evolve consensus among various sections involved in the electricity sector, such a public debate must take place.

Unbundling: Is It Really Necessary?

Let us begin by noting down the arguments on the main issues in the debate at the time of the strike. It was argued by government officials that unbundling would help resolve the current crisis before MSEB. According to these officials, unbundling would reduce the organizational size and facilitate better functioning and management. It was also argued that unbundling will bring in more accountability to all levels in the MSEB, resulting again in improved functioning. Further, some politicians in the government were saying that, though they were going for unbundling, they would never go for privatization and that unbundling would not harm employees in any way. Simultaneously, the public was told that, unless MSEB was unbundled, the World Bank and the Power Finance Corporation (PFC) would not sanction loans that are necessary to avoid further escalation of the financial crisis in the MSEB.

As against this, the striking employees were of the opinion that the government intended to bring about not only unbundling, but also privatization, both of which they believed would be detrimental to the public interest as well as the future of MSEB.

The claim that a small organizational size would increase efficiency is deceptive. The SEBs in states such as Goa and Delhi, although being much smaller in size than MSEB, are in a similar, if not much worse state. A review of the situation of various smallsized SEBs would certainly demonstrate that there is no correlation between the size of the SEB and its efficiency of functioning.

It was also claimed that structural unbundling would facilitate accountability and hence improve efficiency. There is no dispute about the fact that the main cause underlying the current crisis is lack of accountability. However, there is nothing in structural unbundling that will automatically bring about accountability. This is again clear from the experience of the state of Karnataka, where the SEB has been structurally unbundled for more than two decades but still suffers from lack of accountability. What is required for bringing in accountability in functioning is "functional unbundling".

In reality, the lack of accountability in MSEB can be traced to the top politicians in power, who, in collusion with the chairman and the board members of MSEB, interfere in the functioning of the MSEB. The Rajadhyakshya Committee appointed by the government had made numerous suggestions for ensuring accountability, which were rejected by the government. It seems impossible that unbundling alone and by itself would be able to prevent such interference and bring about accountability. On the contrary, unbundling will create three or more companies instead of one, possibly increasing the scope for interference. (For example, it will create three posts of chairman instead of one, giving a further boost to the 'politics' and 'economics' of appointments'.)

In fact, the claim made by the state government that it would go for unbundling but not privatization was a false claim. The Power Finance Corporation, the World Bank and other international financial institutions, and the central government all are strongly advocating privatization. All these actors would not be happy with just unbundling in order to sanction loans. The president of the World Bank made this clear to the chief minister when he visited Mumbai in the second week of November 2000.

The proposed 'Electricity Sector Reform' Bill prepared by the state government does have various provisions for facilitating privatization of MSEB. In the very preamble of the bill, privatization is clearly indicated as one of the objectives. Therefore, the government's announcement of "unbundling without privatization" is clearly meant to deceive the public.

Delusive Mantra of Privatization

Let us now turn to the often-raised questions regarding privatization. Will it resolve the crisis faced by the electricity sector,

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or is it bad for public interest? We need to be extra cautious in our search for answers to these questions. On the one hand, we should not allow ourselves to fall prey to the text-book arguments forwarded by bookish economists and echoed by politicians and bureaucrats with vested interests that privatization is a magic wand. Nor should we fall prey to the efforts by some to create a bogey of privatization.

It is often argued that privatization will resolve the mess created by corrupt politicians, senior managers and undisciplined employees. The supporters of privatization always chant the mantra that "privatization will bring in competition" and that "competition will improve MSEB's functioning, reduce costs, and thus benefit consumers" (by improving service quality without tariff hike).

These statements are incorrect and even delusory, for at least two reasons. First, it has not been possible even for many countries in the West to create a really competitive structure in the electricity sector, especially in distribution. There are many technical and economic difficulties in achieving this objective. Two transport companies can ply on a single route and compete with each other. Similarly, two telephone companies or cable companies can compete in one area. However, it is not economically feasible for two companies to lay parallel grids of electrical wires in order to supply electricity to consumers in one area. Hence, privatization in the electricity sector (especially in the transmission and distribution functions) would imply not competition between two or many private firms, but a shift from public monopoly to private monopoly. While choosing between public monopoly and private monopoly, let us remember that, in the past, we moved from private ownership to public ownership in the electricity sector precisely to protect the public from private owners.

The second mantra, "competition will result in improved efficiency and benefits to customers", is equally delusory. As the text books on economics suggest, theoretically, private companies competing with one another would improve their efficiency and, thus, reduce their costs in order to secure a competitive advantage. Further, it is believed that competition will force these companies to keep their tariffs low and extend the benefits of efficiency improvements and cost reduction to consumers, if necessary even by keeping their profits low. But, as the experience of Indian consumers of the companies dealing in other so-called competitive sectors and products (e.g., soaps, oils, bus service) suggests, neither the quality nor price of goods and service of these companies inspires confidence in this theoretical belief.

Many supporters of privatization, including many industrialists in Maharashtra, hope that after privatization industries will get electricity from NTPC at as low rates as the rates currently charged by NTPC to MSEB. What they need to understand is that in a competitive environment, NTPC will try to sell electricity not at its cost but at the same price as that of the highest surviving bidder (say Enron). The consumer will not automatically benefit merely because of privatization until effective regulatory mechanisms and measures are established to rein in private companies. From the consumers' point of view, both options—an arrogant conductor on the state transport bus, and a rash, untrained driver driving the bus of a private company—are worth avoiding. Therefore, the claim that privatization alone will improve efficiency and also be beneficial to the consumer is delusory.

Protagonists of privatization counteract the above claim by arguing that private companies will not be allowed to engage in such "non-competitive" behavior because privatization will be accompanied by strict and effective regulation. However, if it were so easy to establish strict and effective regulation, then, it would have been possible to keep MSEB under control and avoid the present crisis in the first place. In other words, the failure to create and maintain such regulation resulted in the current crisis. Thus, even the protagonists of privatization agree that strict and effective

regulation is the key and is the critical prescription without which privatization (i.e., change in ownership from public to private) will not succeed. In fact, it is *regulation* and not *change* in ownership or privatization, which is the crucial prescription for improving the electricity sector. The lessons drawn from the process conducted by MERC surely support this conclusion.

If the government tries to carry out privatization in its usual secret manner, then there is a great danger that it will put an immense burden on the public and consumers. It is now well-known that, despite the guidance of and overseeing by the World Bank and its consultants, privatization resulted in an extra burden of Rs. 2000 crores on consumers in Orissa, in addition to the structural shortcomings in the sector that were introduced during the hasty privatization process. The controversy over the Enron project has clearly demonstrated that the bureaucrats and politicians working from within the state or political parties in Maharashtra can certainly not be relied upon. Thus, one can imagine the mess that will occur if these politicians and bureaucrats are allowed to sell—without public overseeing it—the assets of MSEB worth several thousand crores of rupees.

It is therefore essential to first create a regulatory mechanism that is transparent, involves public participation, and is accountable to the people. This open, transparent, participatory, and accountable regulatory system should be used to evolve the design of reforms or changes in the sector and the implementation of these reforms. Only such a system, and not unbundling or privatization, will protect the public interest and the future of MSEB.

The World Bank's Loan: A Mirage

Many government officials say that unbundling and privatization will prompt the World Bank to sanction loans for various state projects, thereby solving all the financial woes faced by the state. Often, politicians in the government (possibly unwittingly) tow the same line. According to a media report, the chief minister had announced that the state would be able to get funds amounting to Rs. 6000 crores after the privatization of MSEB.

It is true that the state government is being pressurized by the World Bank, the Department for International Development (DfID) of the UK government, the Government of India, and the Power Finance Corporation (PFC) to carry out privatization of MSEB. In order to force the state government into a corner, all these agencies seem to be employing different strategies. For example, the World Bank has adopted an open policy of not sanctioning loans for any project in the state power sector, while the DfID cancelled a big rural drinking water project just because the state government failed to privatize MSEB. However, this does not mean that once MSEB is privatized, the funds will start flowing freely to the state.

The World Bank's loan is an inappropriate prescription for the financial crisis before the state power sector in more ways than one. It is often claimed that the World Bank will give a loan amounting to about Rs. 6000 crores (i.e., US \$1.5 billion). Even if we assume this optimistic (if not ambitious) figure to be true, the loan would be disbursed in three to four installments, over seven to eight years and each would be tagged with strict conditionalities. As a result, this loan amounting to Rs. 6000 crores would be effectively disbursed over a span of eight to ten years. The first installment, though of a bigger than average size, would not come to more than Rs. 1000 crores. In comparison, this year, the annual revenue of MSEB is Rs. 12,000 crores, and the value of avoidable electricity losses (i.e., losses which are more than 16 %)-which include excessive technical losses and electricity thefts-amount to Rs. 2500 crores per year. Thus, even if we are able to improve MSEB's efficiency and save half (please note, only half) of these avoidable losses over the next five years, then additional cash income of Rs. 5000 to 6000 crores could be generated by MSEB.

In other words, it is possible for MSEB to generate equal, if not more, income than the loan amount it aspires to get from the World Bank.

It should be noted that the state of Andhra Pradesh had a similar experience in this matter. This most favorite state of the World Bank was sanctioned a loan of Rs. 4500 crores to be disbursed over a period of 10 years. The first installment of Rs. 900 crores would be spread over the first four years. In contrast, electricity theft in Andhra Pradesh amounts to Rs. 600 crores per year.

In addition, there are two deceptive factors in the process of disbursement of the World Bank loan, which are often hidden. First, the interest rate charged to this loan is not as low as is often believed. The World Bank loan reaches the state government through the central government. The effective rate of interest for the state government comes to about 12% to 13 %, which does not make it a "soft", cheap loan in the real sense of the term, as is widely believed.

The second hidden factor is that the World Bank loan is on reimbursement basis. In other words, the state government has to first spend money from its own treasury for which it is reimbursed by the World Bank after the expenditure is scrutinized. When the state government is facing a severe financial crunch, a loan on a the reimbursement basis is not of much help to resolve its financial problems.

This has been the case in Rajasthan where the state government implemented unbundling of its electricity board to secure a World Bank loan. This did not improve the state's financial position as was expected. To review the situation, the state government appointed the Rajasthan Administrative Reform Commission, under the chairmanship of Mr. Shivcharan Mathur, the former chief minister. The report of this commission identified various lacunae and flaws in the World Bank's loan scheme. In addition, it also studied the model of reforms (i.e., privatization) proposed by the World Bank and found that adequate thought had not been put into the model to enable it to resolve the crisis faced by the SEB in the state.

So, it is only increasing MSEB's efficiency of functioning that will help control the current economic and financial problems. What the government is instead doing is concentrating on the completely inappropriate prescription of getting a World Bank loan. It is not only unsuitable, expensive, and involves inadequate financial relief, but also comes with stiff and disastrous loan conditionalities.

Effects of Long Transition Time Required for Privatization

Let us now explore the difficulties MSEB would face if the state government decides—in spite of the debate over privatization—to go ahead with privatization of MSEB. In order to complete privatization of MSEB, the state government will have to complete many processes and make many crucial decisions that will have long-term implications. These processes and decisions relate to the ultimate design of the privatized sector and to the plan for transition to this ultimate design. In order to make the right decisions, many and diverse aspects (viz., political, financial, and technical) will have to be studied in-depth. Equally detailed studies will have to be undertaken on the economic, political, and social impacts of these decisions. There is no short route to privatization that will allow avoiding these processes, decisions, and in-depth studies.

The list of such processes and decisions will be really long. For example, the first issue to be considered before making the decision on privatization is whether to apply uniform tariff across the state or allow variable tariff in different parts of the state? The second issue is how to geographically divide territories among various private electric distribution companies. Should they be given

charge of a mixture of urban-industrial and rural areas or should some other method be followed for allocation of areas? Considering geographic distribution of the urban-industrial and rural areas in the state of Maharashtra, one can imagine the immense difficulties in arriving at an appropriate allocation of different areas to different private electricity distribution companies.

The third issue is how to distribute the outstanding debts and arrears among these companies, or, should a single, state-owned transmission company bear the burden as was done in Orissa? The forth issue is in what proportion the burden of shortages (or load shedding) be distributed among these private companies. The fifth issue is about the arbitration in the case of disputes among these private companies. Considering the Orissa experience again, it may be difficult even for the statutory regulatory commission to rein in errant private companies. We have already witnessed the convoluted dispute between the Tata Power Company and BSES over the "Standing Charges" in Mumbai. Similarly, the dispute over arrears-amounting to several crores of rupees-between the two unbundled but government-owned corporations in Karnataka has been going on for many years. In short, initiating processes to arrive at complex decisions on such issues in an analytically sound and practically feasible manner would be inevitable. This means that process of privatization would require a long time to complete.

When faced with such issues, the protagonists of privatization, especially the government agencies, suggest typically bureaucratic solutions to all these questions. Politicians and officials offer to appoint expert committees or private consultants (usually international) to decide all these issues, as though these experts and foreign consultants have a magic wand that will find a fitting response to all these complex issues and problems. In Maharashtra, we are yet to come out of the disastrous consequences of the recommendations made by the Expert Renegotiations Committee consisting of academics and experts such as Prof. Kirit Parikh, former director of the Indira Gandhi Institute of Development Research.

Basically, one should realize and recognize that, apart from some techno-economic and financial components, most of the decisions related to privatization are primarily 'political' in the broad sense of the term. This is because any decision on these issues is bound to create some winners and some losers. The claim that it is possible for the experts and consultants to find optimum, definite and "accurate" answers to these questions is evewash. Such answers tend to neglect the latent political implications of the "objective" decisions of these experts. Further, it often is politically and economically "costly" to implement decisions on such "political" issues, if they are made unilaterally by experts and consultants and without an exhaustive and broad-based public participation process. People of Maharashtra are politically too aware to allow this to happen without fierce challenge. In other words, such an effort would create nothing but more and more complex problems and conflicts.

In this context, the experience of a small and politically less active state like Orissa is worth considering. In Orissa, under the active guidance and sponsorship of the World Bank, the process of privatization of its SEB started in 1994. The situation in Orissa was quite favorable in all respects for the privatization of its SEB. The electricity consumption by agricultural consumers in the state which is often highly subsidized and is considered as the root of the financial problems as well as the source of political opposition to privatization—was negligible, i.e., just 5 % (as against 18 % in Maharashtra). In Orissa, the political parties, employees' unions, and other civil society institutions, which would oppose privatization, were comparatively less powerful. The World Bank, and especially, the DfID, poured in millions of dollars just to ensure the smooth passage of privatization.

In spite of all these conducive factors, even after six years, neither the people of Orissa nor the consumers have received any of the promised benefits from privatization.

With this background, it is clear that it would take at least five years in Maharashtra for completion of the process of privatization of the MSEB and for realization of the promised benefits of the privatization. Prayas developed a computerized tool to forecast what would happen in these five years. In brief, in these five years, MSEB would accumulate financial losses amounting to at least Rs. 10,000 crores (even if we assume 100 % recovery of bills in these years) if it is allowed to function as in the past. It is not possible for the state government to bear such huge losses, considering its current precarious financial situation. The only way to cover these losses of Rs 10,000 crores is to increase consumer tariff. People in Maharashtra are already experiencing the effects of the tariff hike amounting to Rs. 750 crores. Across the state, consumers and farmers have protested against this increased tariff. One can thus only imagine the devastating impact on economic, social, and political life of a tariff hike required to cover the loss of Rs. 10,000 crores.

To sum up, after making the decision to privatize, it would take about five years to complete the process and to realize the claimed benefits of privatization. In these very five years, the situation will be further aggravated, severely affecting consumers of MSEB and people of Maharashtra.

Haphazard Privatization and Its Serious Implications

The last few paragraphs discussed the impact of the long but unavoidable time period required to complete the process of privatization, if the decision is made to privatize MSEB. In case the government makes this decision, the second crucial question is whether private companies will compete with each other to buy it. If the government does not receive adequate response from private companies, then what would be its effects on the power sector, consumers of MSEB, and the public? These questions must be considered seriously.

It needs to be noted that there is a crucial distinctive factor in the pre-privatization situation in Maharashtra, which was not present in other states that privatized their SEBs. The main difference is the power purchase agreements and the agreements for Escrow cover entered into by MSEB with Enron and Reliance for huge capacities (for about 2100 MW with Enron and for about 450 MW with Reliance), in addition to other agreements with many minor private producers. These agreements for huge capacities would require equally huge payments from MSEB to these producers, once their projects go online.

In other words, once these projects start functioning, a major part of MSEB's revenue will be spent on making payments to these companies. These huge payments are protected by guarantees in the form of 'Escrow' agreements and 'Take Or Pay' clauses, which means that the fixed payments will have to be made by MSEB to these companies irrespective of the quantity of power purchased. The Escrow agreements provide guarantees to these companies for the agreed payments by providing the companies direct access to bank accounts holding MSEB's revenues from consumers in certain geographical areas. As a result, no private party would come forward to purchase unbundled distribution companies in the areas that are under Escrow cover for Enron and Reliance.

While privatizing, the state government, as happened in Orissa, will have no other way but to sell these areas to Enron or Reliance. All these designated areas are largely urban-industrial or wealthy rural areas where the revenue from consumers is large and assured. At the same time, the remaining semi-urban and less endowed areas (including the well-endowed areas where there is

a large population of agricultural pumps) where the revenue is neither large nor assured, will not be attractive for any private company to buy.

Thus, the state will be divided into two parts. The first part will comprise the areas where revenue from electricity consumers is large and assured. Here, Enron or Reliance will have monopoly over both generation and distribution of electricity so that even in these areas which have a good revenue, competition will not be introduced and consumers will be at the mercy of one of these two companies.

The second part of the state will comprise areas where the revenue from electricity consumers is neither adequate nor assured. As a result, no private company will be interested in buying distribution in these areas, so distribution rights in these areas will remain with MSEB or some government-owned organization(s) created after unbundling of MSEB. However, this organization will have to rely solely on revenues from its own area, which would not be adequate and assured. As a result, the government owned organization with distribution rights in the areas with less revenue would deteriorate fast, leaving consumers in these areas high and dry.

Thus, in short, the power purchase agreements and the Escrow agreements entered into by MSEB with Enron and Reliance effectively make it impossible to bring about uniform privatization and competition in the entire state. If efforts are still made to privatize MSEB in this situation, it would inevitably lead to division of the state into two parts with completely different situation, giving rise to various and possibly fierce economic and political conflicts.

Privatization in a Nutshell

Even at the cost of some repetition, this section summarizes the entire analysis of the in-vogue remedy of privatization, which is presented in the earlier sections. Not only politicians and government officials, but even many economists and energy experts—consciously or unwittingly—eulogize privatization as the panacea for the current crisis in the power sector. As we have seen, such a claim is misplaced and unjustified. The claim that unbundling will improve efficiency and bring about accountability is deceptive. Equally deceptive is the promise of the state government that it will unbundle MSEB but not privatize it. The World Bank and other financial institutions mentioned will not disburse loans unless the process of privatization is started in an irreversible manner. Thus, unbundling is nothing but a precursor to privatization.

There is absolutely no ground for the claim that privatization is the panacea for all the ills besetting the power sector. Privatization would definitely result in one substantial change—a change in the players who will control the sector and the benefits.

The control over the power sector as well as the concomitant benefits that flow from this control are currently enjoyed by politicians and officials. After privatization these benefits will be enjoyed mainly by private players who will certainly accommodate politicians and officials. This is because there is nothing in the entire privatization model to ensure that consumers will definitely benefit. Instead, privatization will give rise to an urgent and acute need for strict and effective regulation. To protect the public interest, such a regulatory system will be necessary to address the new problems arising out of private monopolies that will be created by the process of privatization. It needs to be noted that the political, economic, and socio-cultural conditions necessary to evolve such a public-friendly, strict, and effective regulation do not exist in our country. Neither do we find the World Bank or the governments making serious attempts to evolve such a regulatory system, which will attend primarily to the objective of protecting and promoting the public interest.

Often, obtaining a World Bank Ioan is used as the prime excuse for privatization of the electricity sector. As we have seen, though the World Bank Ioan is a convenient solution for the politicians and bureaucrats, it is injurious to public interest. Hence, it needs to be (and could be) avoided. If technical losses are cut by about 5 % (i.e., to reduce them from the current level of 21 % to 16%) and electricity theft (currently about 10%) is cut by just half then the need for Maharashtra to seek the World Bank Ioan will be less acute. But, if the World Bank Ioan were availed instead of making such efforts, then it would further aggravate the problem. This is simply because it would be as futile an exercise as filling up a leaking vessel with water purchased at a high price.

Many supporters of privatization engage in tricking the public in another way. They create an impression that privatization of the electricity sector is a short and fast process and, once completed, will solve all the problems faced by the electricity sector. In fact, privatization is a long-drawn-out and time-consuming process. They also forget to mention the mounting losses (about Rs. 10,000 crores) that will accumulate during this intervening period and become a crushing burden for consumers and taxpayers.

To be honest and realistic, because the Government of Maharashtra has entered into power purchase agreements (PPAs) and Escrow agreements with Enron and Reliance, the possibility of smooth and uniform privatization of MSEB is almost nil, unless the PPAs of these projects are cancelled. In spite of this situation, if the GoM insists on privatization, it will result in the monopoly of Enron and / or Reliance in the high-revenue and high-profit regions like Mumbai, Pune, Thane-Belapur, and Pimpri Chinchwad, which are inhabited mainly by urban-industrial consumers. Once these high-revenue and high-profit areas are transferred to Enron or Reliance, no private company will be ready to purchase the remaining revenue-deficient areas with potential for less or no profits and MSEB will be left with no alternative but to maintain them itself.

Thus, as the result, on one hand, consumers in the privatized areas will be at the mercy of either Enron or Reliance who will be enjoying vertical monopoly (i.e. generation and distribution) in these areas. Their future can be gauged by the situation in various areas in the country, which are being served by private companies, including the suburbs of Mumbai. On the other hand, there is a possibility that MSEB and the consumers and public in the remaining parts of Maharashtra will be entering a vicious cycle of less revenue, less or no profits, increasing electricity demand, sloppy maintenance, old and deteriorating machinery, high numbers of subsidized consumers, need for more subsidy, shortage of funds, insignificant capacity addition, and less and less revenue. This will further aggravate the functional distortions such as increasing the severity and frequency of load shedding, long wait for new connections, and high tariff hikes. All these distortions will seriously damage the economy and society of Maharashtra. This might sound excessively cynical but looking at the current situation, it is a logical and inevitable scenario. Unfortunately, neither the state government nor any other institution appears to be making any serious efforts to avoid it.

Diagnosis of the Crisis before Maharashtra State Electricity Board

A Long History of Ad-Hoc, "Band-Aid" Solutions

Although MSEB made significant progress in the beginning, slowly, serious distortions and perversions crept into its functioning. Unfortunately, these were ignored and this led to the financial crisis. This crisis is seriously affecting Maharashtra's economy and even the welfare of its people. Let us now see what measures were taken to resolve the financial crisis before SEBs or MSEB particularly.

However, despite the worsening situat

The genesis and persistence of this crisis could be traced to the failure or unwillingness—on the part of politicians, senior bureaucrats and technocrats controlling MSEB—to make unpleasant, difficult, but necessary decisions to deal with the functional distortions and perversions. Instead, they went for shortterm, temporary, "band-aid" solutions, which did not succeed in rooting out the distortions effectively. These functional distortions and perversions led to significant reduction in performance in the late 1980s, resulting in grave financial problems.

The first visible impact of the distortion was the failure on the part of SEBs in the country to raise investments from internal sources to build new power plants. Instead of taking tough decisions to root out the distortions, two new corporations—viz., National Thermal Power Corporation (NTPC) and National Hydro Power Corporation (NHPC)—were created by the central government. The magic of this temporary solution could not last long. As the functional distortions continued, arrears piled up in the SEBs' payments to NTPC (though not in the case of MSEB). In the meantime, though the World Bank and the Asian Development Bank continued to provide financing to SEBs, slowly both institutions started reducing the flow of their finance. For some time, they provided loans but only on stringent conditionalities. When things did not improve in spite of these stringent conditionalities, the loans were withdrawn, as the last resort.

The drying up of this second source resulted in an acute shortage of funds for the SEBs. Still, the downward trend in efficient functioning was not arrested. We have seen earlier how, instead of dealing with the problems decisively, the state governments tried to find an easy escape route in the form of IPP policy, which failed to create any impact. Vigorous efforts were made to retain the magic spell of the IPP policy by offering Escrow accounts and counterguarantees from the central government. However, despite the worsening situation of SEBs, no effective action was taken to cull the functional distortions and perversions. Instead, the state governments found it less dangerous and less troublesome to obtain a loan from the World Bank and privatize the SEBs.

Analysis of the Crisis faced by MSEB

Let us take this analysis of the financial crisis further. This analysis holds true not only for MSEB but also for almost all SEBs in the country. It is a matter of common knowledge that the current financial crisis of the SEBs is the direct outcome of the distortions in their functioning such as technical inefficiency, financial mismanagement, electricity theft, corruption, mounting arrears, and indisciplined administration. These have precipitated the current financial crisis, which, simply put, means that SEBs have no money to spend.

These functional distortions have acquired such horrible proportions that, together, they could justifiably be termed a performance crisis. Thus, it could be said that the root-cause of the much-discussed financial crisis lies in the performance crisis. It should also be noted that the performance crisis has other impacts besides the financial crisis. These other visible impacts include: load shedding, corruption, and rudeness and ill treatment of consumers by employees in both rural and urban areas.

Without examining the reasons underlying this performance crisis, privatization is being strongly recommended as the panacea. But it should be seriously considered whether privatization, which means mere 'change in ownership', is the correct response to the performance crisis. This is first because, as stated earlier, privatization in other areas of the economy has not made customers entirely happy. Hence, instead of opting for another apparently simple and easy solution, the root causes of the performance crisis must be rigorously examined.

If this crisis had affected everyone equally, the improvement could have been easier. The very fact that, despite such a deterioration, no steps have been taken to improve the situation indicates that even the deterioration must be beneficial to some people. Further, these people must be so strong that they can frustrate all efforts at improvement.

The list of those who benefits from this performance crisis is quite obvious—certain sections of politicians and top bureaucrats involved in making (and benefiting from) multi-crore decisions, the officials and employees who engage in corruption while implementing these decisions, the industrialists and contractors who join hands with these officials and bureaucrats, and some consumers who gain undue advantages using their political clout and financial leverage.

All these sections of society benefit from the performance crisis at the cost of MSEB and its consumers. Since the benefits they enjoyed will stop once the distortions causing the performance crisis are effectively addressed, they have a vested interest in creating and abetting the performance crisis. Moreover, they seemed to have joined hands to form a strong and united alliance to protect their own interests. In other words, certain politicians, bureaucrats, contractors, industrialists, and select customers have formed an unholy alliance for the common cause of defrauding the MSEB.

Now the next step in the analysis is to find out how exactly will this alliance continue to benefit from the crisis?

This unholy alliance has been successful in influencing and directing the two governance functions of making and implementing various decisions within the SEBs. This could go on uninterrupted since this same alliance has gained control even over the third governance function of regulating the other two governance functions, viz., decision-making and implementation functions. (Here, regulation means ensuring adherence to the relevant laws and statutes, while carrying out the two other functions.) The public should be the real owner of the SEBs in the current politicaladministrative system and is expected to exercise full control over their governance. However, it is this unholy alliance that has successfully gained total control over all three governance functions and sidelined the public.

Transparency, Accountability and Public Participation

The next obvious question is who or what allowed the unholy alliance to gain such control over the governance functions? The answer lies in three crucial lacunae in the functioning of MSEB, viz., lack of transparency, accountability, and participation. The lack of transparency in the functioning of the MSEB is seen as the first lacuna that allowed the unholy alliance to gain and maintain control over governance of MSEB. The public has no way of getting information on crucial questions regarding making or implementing decisions such as: On what basis are decisions made? Are these decisions guided by any motive other than the public interest? Are the decisions implemented properly? Do these decisions have any undesirable impacts or implications for the public interest? As the public does not get any information on these crucial questions, the governance functions such as decision-making and implementation have thus become completely opaque. In other words, transparency in the processes of decision-making and implementation has been substituted by secrecy.

The second lacuna that has allowed the unholy alliance to control the governance of the sector is the absence of accountability. There is absolutely no procedure or mechanisms to hold accountable those who make decisions or implement them, if these decisions or their implementation is proved to be harmful to the public interest. Since there is no fixing of responsibility for any harmful impact of any decision no action can be taken against erring decision makers or implementers. For example, the politicians (and the bureaucrats assisting them) from the Congress party—which was in power when the first Enron PPA was entered into—proclaimed in the courts and the legislative assembly that Enron's tariff would be Rs. 2.4 per unit. The politicians (and the bureaucrats assisting them) from the Bharatiya Janata Party (BJP) and the Shiv Sena—which were in power when the second Enron PPA was entered into —claimed that the real tariff after the second PPA would be Rs. 1.9 per unit.

However, when the Enron tariff rose to Rs. 5.00 and above, members of the public had no means to question these politicians and bureaucrats and hold them accountable or responsible for their earlier proclamations. There is a similar lack of accountability in the case of experts and academics, who supported these claims openly and dismissed arguments by the opponents of the project. Incidentally, the same politicians are now engaged in a blamegame over the Enron tariff, and the same experts are now giving advice to the government on how to improve the state's economy. All these politicians, officers, and experts are now extolling the benefits of privatization to the public, in spite of being aware of the risks of the same. In short, the absence of accountability is the second lacuna that allowed this unholy alliance to have a tight control over governance of MSEB.

The third lacuna in MSEB's functioning is the lack of public participation. In the current design, the functions of decisionmaking, implementation, and regulation in the governance of the power sector do not have any space or scope for meaningful public participation. The bureaucrats (and technocrats), politicians, and their consultants (who have commitment only to those who pay them their fees) seem to feel that they alone have complete knowledge of all aspects of the matters under decision. They are confident that they know what are the concerns, preferences, choices, and requirements of different sections of society and see no need for any direct public participation in the three governance functions. They do not appear to feel any need for understanding public's opinions or suggestions. Often, they also feel that the public does not understand techno-economically complex issues in the electricity sector, and assume that members of the public would not be interested in putting forward their views.

In reality, it has been demonstrated in many cases that these three sections—the bureaucrats (and technocrats), politicians, and their commercial consultants —themselves lack the necessary knowledge of techno-economic and other substantive matters. This was clearly demonstrated in many instances for example in both the PPAs of Enron as well as in the tariff proposal put before MERC. There is no doubt that these three sections do not have an understanding of the people's choices or preferences, as they are quite removed from the everyday reality of common and disadvantaged people.

Therefore, direct and unhindered participation of members of the public in the three governance functions of decision-making, implementation, and regulation has become an urgent necessity. We have already seen in the earlier sections how, due to active public participation, the true state of affairs regarding the T & D losses of MSEB was unearthed before MERC and how it gave impetus to wide-scale efforts to get rid of this distortion. Those currently controlling the governance functions of the MSEB have not been able to achieve such a feat. On the contrary, they have often tried to create hurdles in the MERC process, fearing encroachment on their turf.

Thus, lack of transparency, accountability, and public participation (alternatively called TAP), are the three main lacunae underlying the current performance crisis plaguing the electricity sector in general and MSEB in particular. Lack of TAP allows the unholy alliance to displace the public—the real owner of the sector—and to take control of the three governance functions in the sector. In this sense, absence of TAP results in what could be

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called the governance crisis. Thus, the current financial crisis could be diagnosed as rooted in the performance crisis, which, in turn, could be seen as rooted in the governance crisis.

In fact, in our analysis, we should go a step further and look for the root causes underlying the governance crisis. The legal framework guiding the governance of the power sector certainly has some provisions and mechanism for transparency, accountability and public participation (TAP). These were introduced in order to keep people's control over the decision makers and executives. However, these procedures and mechanisms have failed in their task, mainly because they proved to be inadequate, indirect, and even discretionary (or nonmandatory). These three shortcomings—viz., inadequacy, indirectness, and non-mandatory character—of the existing TAP procedures allowed the politicians and bureaucrats to subvert, circumvent, and even flout these TAP procedures with impunity.

In this regard, two illustrations could be offered. The Electricity Supply Act requires that the Consultative Councils (CCs) comprising representatives from different social sections—be formed for advising the SEBs. These CCs are to be formed from the district to state level. The state-level CC is expected to be consulted while making important policy decisions. However, the decisions on timing and manner in which these CCs should be formed are left entirely, according to the Act, to the discretion of the state government. As a result, politicians and bureaucrats in the state government appoint CCs at their convenience and fill them up with "manageable" people. In the case of Maharashtra, the state level CC was not even in existence at the time of making the decision on the Enron project.

When it comes to accountability, politicians always take the first opportunity to mention that they are always accountable through the ultimate test of accountability—the elections.

Theoretically, elections do act as accountability mechanisms, through which people can hold the elected representatives accountable for bad performance. However, in reality, it is not possible for common people to examine and comment on all policies and decisions of the government through the single medium of elections, conducted once every five years. Professional full-time politicians take advantage of this flaw and also adopt various undemocratic strategies for winning elections such as raising emotional, religious, and language issues, using the muscle power of anti-social elements, and even buying votes using money. Thus, the mechanism of elections—the only tool available to people to control the politicians by holding them accountable—has already been rendered ineffective. In most cases, the only alternative people have is to replace one corrupt politician with another who, often, is equally corrupt.

Prescription for Resolution of the Three Crises

A Brief Review of the Crisis and Responses

In previous discussions, we saw that, in spite of its vigour, the mainstream debate on the financial crisis has failed to zero in on the correct diagnosis. To sum up the diagnosis, the root cause underlying the financial crisis is the governance crisis, which is mainly the result of lack of transparency, accountability, and participation (or TAP) in the three governance functions, viz., decision-making, implementation, and regulation.

Making these systemic changes will take time, but there are some urgent and critical problems before the sector and MSEB which need to be handled on a war-footing. The unholy alliance of certain politicians, officers, and their consultants has made a variety of agreements with Enron, Reliance, Bhadrawati, and other private companies. Coupled with the serious functional distortions mentioned before, these agreements have brought MSEB to the

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verge of bankruptcy. By themselves, the functional distortions have also reached alarming proportions and need urgent action. The effect they are having on MSEB and its consumers can be seen among other things in the steep tariff hikes. These urgent issues will have to be handled separately through certain urgent measures and without waiting for the effects of the fundamental (TAP –related) measures, which would certainly take some time to show results. In other words, we will have to separate out the urgent and fundamental problems and accordingly design and implement separate measures to address these two types of problems.

We have also analyzed the prescription put forth by the mainstream, viz., unbundling and privatization, which are touted as the panacea for all ills before the power sector. We have seen the deception in the so-called separation of the measures of unbundling and privatization. We have also discussed, the irrelevance of the prescription of privatization in the given situation in Maharashtra, the long time required to implement privatization, and the grave impacts of partial and haphazard privatization. In short, despite the claims by the mainstream, privatization would not effectively resolve either the fundamental or the urgent problems discussed above. It must also be mentioned that, if efforts are made to bulldoze the prescriptions of unbundling and privatization, there is a great danger that it would end in chaos, widespread conflict, and strife.

Five Guiding Principles

Let us now turn to the measures needed to resolve the two types of problems faced by MSEB. In this regard, we could begin with the following five guiding principles. The first principle is related to the need to employ different measures for the two different sets of—fundamental and urgent—problems. If these two sets of problems are not differentiated and if the same measures are used to resolve both sets of problems simultaneously, then both sets of problems might be further aggravated. If the urgent problems are addressed first, it will provide some respite for the more fundamental problems to be worked on and resolved.

The second Rajadhyakshya Committee report, which was rejected by the state government, had recommended a similar systematic approach.

The second guiding principle is the need for comprehensive and fundamental reforms (or functional and structural changes). We have seen that the fundamental crisis, i.e., the governance crisis plaguing the sector is rooted in the absence of transparency, accountability and public participation (TAP). Therefore, bringing in TAP in the decision-making, implementation, and regulation functions holds the key. Hence, there should not be any resistance to effecting comprehensive and fundamental changes in roles, functions, and structure in order to bring in TAP in the functioning of the sector.

The third principle is that the measures to resolve both urgent and fundamental problems should also be evolved in a transparent and participatory manner and after deliberations before and recommendations by an independent and credible body. The old practice of designing such measures behind closed doors and in consultations only with commercial consultants should be avoided. Neither should the government resort to cosmetic mechanisms of participation to get legitimization.

The fourth principle is to make tough and courageous decisions, specifically while dealing with the issues that are at the very roots of the current crisis. Such decisions are inevitable for quick and effective rooting out of the chronic problems. Besides, such decisions do act as symbolic gestures, sending the right signals to the right persons. Therefore, there is no alternative to such tough and courageous decisions in the current situation. In

Prayas Energy Group

other words, the soft, "band-aid" solutions would not avert or postpone the breakdown anymore.

The fifth principle is focused, concrete, and urgent actions for improvements in the functional efficiencies—techno-economic, financial, as well as managerial and administrative. It is not sufficient to make tough decisions, but these decisions should translate into concrete and focused actions to weed out the functional distortions.

Measures for Improvement in Functional Efficiency of MSEB

Let us now turn to an action-plan based on these five principles. Many politicians, government officers, and even MSEB officers are emphatic that there is very little possibility of improvement in the functional efficiency of MSEB. Many of these people have burnt their fingers while making sincere efforts to stem the rot in MSEB during their long associations with MSEB, which has led to such strong, negative opinions. With due respect to their efforts, experiences, and opinions, it could be said that due to certain changes in the circumstances, it is possible to bring about substantial improvement in the functioning of MSEB. Let us begin by discussing these changes called here 'conducive' changes.

The main element of the conducive changes is the change in mindset. All the stake-holders (though with diverse interests) have now realized that urgent improvement in the functioning of MSEB is necessary. All these sections now understand that functional improvements in MSEB are a crucial precondition for survival of not only MSEB and its employees but also of the state and its economy. Unfortunately, even in such a crisis situation, some MSEB employees and officials as well as some politicians remain committed to their own agenda. This thinking must change.

The second element of the 'conducive changes is the 'public' knowledge of the true state of affairs in MSEB which is the result of the process before MERC. Earlier, politicians and MSEB officials

used to hide the sorry state of affairs, by presenting deceptive and even wrong data to the public and even in the state assembly. The refusal to acknowledge the gravity of the situation and the existence of a functional crisis, made it impossible to effect any change in the situation. This major hindrance is now removed because of the transparent process adopted by MERC.

The third element of the 'conducive' changes is the various directives issued by MERC as part of its orders on the tariff-hike and other cases. MERC, through these directives, has attempted to set performance standards for MSEB, which are expected to provide impetus for improvements in MSEB's functioning. Now, it will be difficult for both, the state government and MSEB to escape the vigilance of many individuals and organizations that intervene and participate in the MERC processes. There are incidences when officials and politicians who tried to bulldoze their way through were severely reprimanded by MERC at the instance of such individuals and organizations.

Taking into account such 'conducive' changes, let us now analyze what exactly needs to be done in order to improve MSEB's functioning. We have seen how various functional distortions such as abysmal techno-economic efficiency, financial indiscipline, electricity theft, corruption, and excessive arrears—have led to the three crises. In order to reduce and eliminate various functional distortions, stringent measures need to be taken in the following three key areas: (a) electricity generation and purchase, (b) metering (electricity consumption), billing, and recovery (of bills), and (c) purchase, contracts, and (small as well as large) investments. In order to eliminate distortions in these three areas, Prayas has suggested establishing the following four "performance monitoring systems."

 System to Monitor the Merit Order Dispatch: This system is expected to ensure that electricity is obtained (generated or purchased) from the cheapest available source. It is expected that the cheapest source will be exhausted first before moving to the next cheap source, thus electricity from the most expensive source would be taken in the grid only after all other sources are exhausted. This will ensure that consumers get power at the cheapest possible cost.

- 2. Energy Accounting System. This system is expected to ensure that all energy flows, through all nodes in the grid, are recorded and accounted for. It would keep tabs on these flows by measuring incoming and outgoing energy at every node in the grid. This will help pinpoint corridors of high technical losses and areas of high electricity thefts.
- 3. <u>System to Monitor Metering, Billing, and Recovery</u>: This system will monitor the three crucial operations, viz., metering electricity consumption, preparation of bills, and recovery of bills in the case of each consumer. This system will also check other important factors such as whether the consumer is charged as per its use. The system will also be designed to pinpoint the responsibility for failure in these three operations.
- 4. System for Monitoring Purchase, Contracts, and Investments: This system will keep track of the desirability and rationality of decisions made while making purchases, contracts and investments. This monitoring system is designed to ensure the appropriateness of the process adopted for decisionmaking as well as to check the impacts and implications of these decisions for technical, economic and financial conditions of MSEB.

Some typical objections are raised when such performance monitoring systems are suggested. The main objection is that such systems are expensive and time-consuming, which in some cases is certainly true. However, it is not difficult to design performancemonitoring systems that are not time-consuming and expensive but still effective. The efficacy and impacts of such systems could be increased multi-fold, if employees are taken into confidence and if the information obtained from these systems is made available to MERC and to the public.

This can be illustrated through some examples. Many people argue that considering the problems related to the cost and availability of the large number of meters required for energy accounting, energy accounting is an unfeasible, if not impossible, task. However, if the cooperation of MSEB employees is ensured, instead of trying to meter each and every node and consumer in the beginning, meters could be installed only at critical points in the areas which are known to be prone to high levels of losses. Providing and monitoring a few thousand meters at such crucial points in the entire state will be sufficient for pinpointing and curtailing excessive losses and theft. This is eminently possible both on administrative and financial grounds. Though such measures will not put a complete stop to theft and losses, it will certainly reduce these problems substantially.

The second example is related to the proposed monitoring system for purchase, contracts, and investments. As a starting point, Prayas has designed a one-page questionnaire for this system. It contains approximately 20 to 25 objective-type questions requiring short answers (such as yes or no, one figure, date and time). If any decision is made regarding purchase, contract, or investment that involves financial allocation beyond a certain limit (say, for example, Rs 1,00,000 or Rs. 1,00,00,000), the concerned officer making this decision must fill up the questionnaire and sign it. A copy of this signed questionnaire will be sent to MERC through MSEB. This document will be available to the public for inspection in the MERC office.

The questionnaire is designed in such a way that, it will easily highlight most common discrepancies and malpractices in the process of making decisions related to purchases, contracts, and investments. MERC, at the request of a member of the public or

suo-moto, may investigate the decision, if it is convinced of some prima-facie discrepancy in the document. If the decision is found to be unjustifiable, then MERC may direct MSEB to take legal action against the officer concerned and disallow the expenditure involved in the decision. This procedure by itself will send strong signals to the officers of the MSEB. What is required here is for the officer to spend about ten minutes to fill up the one-page questionnaire.

The above-mentioned four performance monitoring systems are merely illustrative. Many such effective systems could be evolved that require very little time and cost compared to their benefits. If all the stakeholders cooperate, the success of such systems is guaranteed. Moreover, it is possible to further improve these systems and even add some more systems. Prayas is confident that, with the help of such systems, various functional distortions in MSEB can be eliminated to a great extent.

Three Point Action-Plan

Improving the functional efficiency of MSEB is a crucial step in addressing the urgent problems faced by this electricity board. Many firm (if not harsh) decisions will have to be made at the levels of MSEB, the state government, and MERC to realize this objective. Two such necessary decisions are too important to miss out.

The first decision which the state government must urgently take is to immediately vest in MERC all the powers as per Section 22 of the ERC Act 1998. This bold decision will help achieve many things. First, it will not place the state government under any "pressure" from the other stakeholders to make any unwarranted concessions. Second, it will assure everyone that the government is sincere in its intention not to interfere in the affairs of the sector. Third, this decision will help achieve public control over the governance of the sector because of the transparent, accountable, and participatory process adopted by MERC. This will initiate the process of elimination of the functional distortions and perversions.

The second decision is related to the appointments of toplevel officials of MSEB, viz., the chairman and board members of MSEB. It is now a well-known and widely accepted fact that the fountainhead of all the functional distortions in MSEB is the unwarranted interference of the political and economic vested interests that creeps in through these top officials of MSEB. At present, the process of appointing these top-level officials is completely non-transparent and in the hands of politicians in the government. This gives rise to many real or alleged malpractices, leading to the appointment of people with very little capability or credibility. If a proper selection process is adopted, MSEB will get board members and chairman who are honest, independent, efficient, knowledgeable, and experienced in the electricity sector.

One way to ensure that such people will occupy these top posts is to route these appointments through an independent Selection Committee. This Selection Committee should adopt a selection process which is completely transparent, participatory, and free from political or other interferences. Such a process will not only effect drastic changes in the composition of the top management of MSEB but will also send a clear signal to the middle and low levels of management that the old era of favour and patronage is over.

Public Commission on Electricity Sector Reforms

While it is important to address the urgent problems immediately, it is equally important to initiate some action to address fundamental problems that are rooted in the very structure and functioning of MSEB and of the sector. It has been mentioned that, in order to successfully address the deep-rooted distortions, some

Prayas Energy Group

fundamental measures would be required. However, it needs to be noted that these fundamental measures should not be evolved in a secret and non-participatory manner as in the past.

The first step in evolving such a participatory and transparent method of functioning is the appointment of a public commission for evolving the design of the fundamental measures. It is necessary to clarify that this commission is not one more government committee. We are still suffering from the terrible after-effects of the failure of such committees—made up of politicians, government officials, and their paid consultants. Therefore, instead of such government committees, appointment of a public commission comprising experts from various fields and representatives of different sections of society—could be a good starting point for the transparent and participatory process.

The commission should adopt a systematic, transparent, participatory process to arrive at decisions that are technoeconomically sound and politically desirable. The commission should provide all possible information freely, conduct formal and informal public hearings, consider all view-points including that of the experts, assess all the available options in an impartial manner, arrive at optimal and desirable decisions, and justify its decisions through a "speaking" order so as to be accountable.

The process should go through three important steps. At the beginning of every step, the commission should come out with a comprehensive document. It should pro-actively invite and seek queries and suggestions from all sections of society and conduct meaningful public debate. The following are the steps.

 a) Defining the problems at hand precisely but comprehensively and making available all and detailed information to the public on the current techno-economic and financial situation (including the scope of the crises and their causalities).

- b) Presenting before the public a detailed analysis of all available options to resolve the problems identified in the first step, along with the risks involved and the precautions to be exercised.
- c) Recommending a set of solutions selected out of the available options after careful consideration of the public debate on the second step. The recommendations should accompany discussion on every point which is relevant and meaningful, raised in the public debate. The recommendation should also accompany a detailed action plan for implementation of the recommended solutions, the milestones in the action-plan, and the risks and precautions.

Such a process, if implemented in proper spirit and manner, will provide numerous benefits. Basically, the mistrust and suspicion that surround current efforts for 'reforms and restructuring' will disappear. The action-plan that has been arrived at through a consensus building process will be widely accepted and supported and hence will have a greater chance of success. Though it is bound to create some losses and losers, even the losers will feel that they have been given due opportunity to be heard, which needs to be guaranteed in a democratic process. Further, content-wise, it will be the optimum (if not best) solution in the given situation, since it will be based on detailed and sound techno-economic analysis and, at the same time, inclusive of the knowledge, analysis, anxieties, and aspirations of various sections of society.

Some typical doubts about the feasibility and benefits of such processes are always raised, such as is it feasible and beneficial to conduct such a process, and how can lay-people contribute meaningfully to highly technical, esoteric, and complex issues in the electricity sector?

The answers to these questions are available in the results of the public processes conducted by MERC. The participatory

decision-making process conducted by MERC at the time of the first tariff revision case was a watershed in the history of the state electricity sector. This is because of many reasons. First, it cleared up—to a great extent—the confusion and deception over the true and sorry state of affairs in MSEB that was the result of the secret shenanigans of politicians and officials. Second, it is also because also helped identify the course of action needed to set MSEB on the correct path.

As for the ability of the lay public to understand such complex issues, the chairmen of MERC and MSEB have publicly accepted that lay members of the public, as individuals or organizations, have made a significant contribution to this decision-making process. The government and MSEB were not even aware of the exact scale of the electricity theft or losses, and were knowingly dishing out fraudulent statistics even on the floor of the state legislative assembly with impunity. The open and detailed discussions during the public process over the first tariff case forced MSEB to accept that the actual losses were about 31% and not 18% as it had claimed. This is an apt illustration of the contribution lay members of the public could make if allowed to participate in a transparent and accountable process.

Another doubt raised is related to the time and cost required for such a detailed process. The participatory decision-making process conducted by MERC at the time of the first tariff revision involved detailed discussions on the information and data supplied by MSEB. In fact, during the process, MSEB was forced to submit an entirely new proposal with fresh data and information. Even the process of public participation had to be repeated. Despite this duplication of the entire process and despite the fact that this was the first such occasion, the time and the cost involved were extremely limited. Thus, the case has demonstrated that the usual claim that the participatory processes involving detailed deliberations is time-consuming and costly is thus nothing but a flimsy excuse for continuing to make secret decisions benefiting certain vested interests.

Thus, on one hand, there is a need to take urgent actions to arrest the imminent collapse of MSEB, while on the other hand, it is essential to resolve the long-standing, chronic, and deep-rooted problems by taking all the stakeholders—including common citizen—into full confidence.

This requires a two-pronged action plan. The major urgent actions should include the re-appointment of chairman and board members of MSEB through an impartial, open, and participatory process. They should also include implementation of the MERC directives aimed at improving the functional efficiency of MSEB. However, the detailed design of the prescription to address the deep-rooted, chronic problems should emerge through an open, participatory, and detailed debate before an independent mechanism such as a special Public Commission on Electricity Sector Reform. It would be suicidal to repeat the earlier mistake of relying only on the officials, politicians, the World Bank, and their paid consultants.

Therefore, it could be argued that, both, the optimal prescription and the consensus on such an optimal prescription could emerge only through vigorous public debate in which people from different social, economic, and political locations participate on an equal footing. This is because an optimum (and hence ideal) solution can emerge only when the knowledge, understanding, insights, analysis, opinions, aspirations, and frustrations of diverse sections of society converge together. This cannot be done without an open participatory process and without an independent forum such as a public commission.

Conclusion The Prescription of Democratization

Readers by now must have judged the gravity of the crisis faced by MSEB. On the one hand, comprehensive and fundamental changes must be made in the structure and functioning of the sector in order to root out chronic problems that have festered for a few decades. We can call this either reforms or a revolution. On the other hand, urgent actions must be initiated to avoid the imminent calamity due to the functional distortions that have been aggravated beyond limits.

We have also seen that, privatization—the purported magic wand suggested by the mainstream leaders in the electricity sector —will face many insurmountable barriers in Maharashtra. As we have seen the root cause of these festering problems does not lie primarily in the public ownership of the sector, as the mainstream claims. Rather, the root cause of the current crises lies in the absence of effective public control over the governance of the sector. This is mainly because the prevailing 'representative democracy' has been turned into a merely 'symbolic democracy'. The first step in efforts to address the current crisis (even in the other sectors of the economy and polity) would be to turn this symbolic democracy into a working or effective democracy by establishing effective public control on governance.

As far as the electricity sector is concerned, democratization of governance of the sector should be the core objective of the reform or restructuring (or revolution) of the electricity sector. This democratization is to be brought about by establishing public control on all the three governance functions—viz., decision-making, implementation, and regulation. It is natural that the process in which the details of the prescriptive action plan are designed should also be a democratiz process. There is no doubt that the prescription of democratization is—in the broader sense of the term—a 'political' prescription. Considering the diagnosis that the root of the apparently techno-economic and financial problems faced by MSEB lies in the governance crisis, it is natural that the prescription is 'political'.

However, the prescription of democratization should not be confused with the old prescription of "statism". Most people tend to debate over the choice between the state and the market. The essence of the prescription of democratization lies in reining in both,—the state and the market—with the help of the three prongs of TAP, instead of either blindly trusting or outrightly rejecting either of them. In other words, the responsibility of securing and maintaining the health of the power sector lies with people and with their institutions and organizations, which will have to keep the tight leash of TAP on the players within the state as well as the market. Independent transparent institutions such as MERC or the Public Commission will certainly be a useful instruments for democratization. However, people and their organizations will have to remain active and vigilant and should not commit the mistake of entrusting their own futures even to these institutions.

Many people might find this prescription of democratization utopian and, hence, unfeasible. But, it could be said that, with the success of the first tariff case (and even other cases) before MERC, the process of democratization of governance in the power sector has already started in the state of Maharashtra. After this initial step, various individuals and organizations in the state have been continuing their efforts to ensure that MERC remains an independent forum to conduct the processes of decision-making and regulation in an open, transparent, and participatory manner.

To sustain the momentum of the process of democratization, people and their organizations will have to take up many challenges. The first challenge is to make the functioning of MERC more transparent and make the participation more broad-based to include

even the disadvantaged sections of society in the process. The second challenge involves deepening the process simultaneously by making it more detailed as far as its techno-economic and financial content is concerned. The third and the most important challenge is to increase the effectiveness of the process, by ensuring that the decisions are rational not only on economic criteria but also on political and social criteria. This means that the decisions will have to be techno-economically sound while responding to the aspirations and expectations of people, especially people from the disadvantaged sections in the governance of the sector.

In order to deal with these challenges successfully, the institutions and organizations representing civil society will have to be more vigilant, capable, and proactive. They will have to keep a tight leash on the dominant sections in the sector such as politicians, officials, industries, and employees. There are bound to be some losses in the initial stages. However, it will be necessary to keep on making consistent and focused efforts against all the odds, while keeping faith in the talisman of "democratization through people's action". This is the core of the strategy to bring in democratization.

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About PRAYAS

PRAYAS (Initiatives in Health, Energy, Learning and Parenthood) is a non-government, non-profit, public charitable trust registered under the Bombay Public Charitable Trust Act 1950. It has three functional groups working in three different areas, viz., Health, Energy, and Learning and Parenthood. The Energy group of PRAYAS has also started conducting activities in the areas of Natural Resources and Sustainable Livelihoods. PRAYAS was officially registered in 1994, but the three groups have been working together since 1991.

About PRAYAS Energy Group

PRAYAS Energy Group (PEG) is working on electricity sector policies with an aim to protect and promote public interest in general and the interests of disadvantaged sections of society in particular. PEG strives to achieve diverse objectives considering its strengths and weaknesses. These objectives include: (a) to undertake policy analysis; (b) to carry out public education, training, and advocacy efforts based on the analysis; (c) to provide analytical support to civil society organizations; (d) to build capabilities of civil society organizations through increased information-access, awareness, education, and training.

Major publications and documents produced by the Health and Energy groups of PRAYAS are available on its web-site www.prayaspune.org

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About the Booklet

The electricity sector in India has been in limelight in the recent years. Various controversial projects and the new reform (or privatization) policies in the sector have sparked a vigorous debate. However, it has been observed that the debate often remains restricted to a very narrow circle of individuals and organizations. Because of the complex techno-economic and financial issues involved, common people find this debate perplexing and leave it to the sector-specialists. However, considering the essentially political character of the problems and the prescriptions involved, the debate should have wide participation from all sections of society. This requires that the discourse on power sector problems and prescriptions should be made amenable to common people. This booklet is aimed at contributing to this objective.

The booklet is divided in two main parts. The first part takes a historical review of electricity sector development in India. It describes various policies adopted and institutions built in the earlier period. It also describes various failures of the sector, which gradually turned into a crisis. Lastly, it discusses some recent developments in the sector, which have aggravated the crisis further.

The second part focuses on the state of Maharashtra. It begins with a brief historical review of the state electricity sector. Then, it discusses two new developments in the state, viz., (a) functioning of the Maharashtra Electricity Regulatory Commission and (b) debate on the privatization and reforms in the state electricity sector. The prescriptions of unbundling (or trifurcation) and privatization of the State Electricy Board are discussed in detail. The subsequent discussion is focused on the alternative diagnosis of the prevailing crisis in the power sector and the prescription of democratization.