Introduction

This book discusses the functioning of the State Electricity Boards (commonly known as SEBs) of India and the implications of the new liberalized approach. It argues that these institutions have always been effectively under the thumb of the government, no matter what the cosmetic dressing. The real power has always vested with someone who has been appointed by the concerning state government. The book traces the history of the state electricity boards and goes into operational details such as the manpower configurations, thefts, Transmission and Distribution losses (T&D) and other technical aspects. It argues for a re-energization of these institutions and provides a few solutions as to how this can be done. It offers insights into this most complex issue, which must be eventually solved, one way or the other, if the power sector is really to take off and investments from the private sector and multilateral agencies are to be encouraged.

Historical Perspective of SEBs

Before 1998, the planning commission used to set policies in coordination with the union Ministry Of Power (MOP). MOP used to control NTPC, NHPC, Powergrid etc., and these...
entities used to report to MOP. MOP also used to set policies for SEBs and NTPC, NHPC, etc., used to sell the energy to SEBs while the SEBs used to get the plan funds from the planning commission and loans from the Power Finance Corporation. After the passing of the Electricity Act 2003, NTPC, NHPC, Powergrid etc., can directly be involved in generation, transmission, distribution as licensees and state governments may postpone the subsidies meant for the agriculture and domestic consumers or allocate the subsidies as happened in Haryana earlier and as is happening in different states like Andhra Pradesh.

SEBs have gone through different phases but have basically never been divorced from the political environment of the states and central governments. This connection has influenced all the decisions of the SEB-budgeting, metering, allotment of the connections, postings, etc. Due to this, the SEBs have never been able to run professionally.

In 1998, through a series of detailed surveys, the Government of India found several operational inefficiencies like poor billing and collection, imbalances in the mix of generation sources, unmanageable sizes and monolithic structures in the power sector. In 2002, the Planning Commission also reported significant losses in power because of lack of transmission capacity, improper maintenance of the power plants and significant damages of distribution transformers. Moreover, the nontechnical losses like theft, bribing and stealing of power are very much there due to the political inputs involved. The need of the hour therefore is to find effective and practicable mechanisms to reduce the technical and nontechnical losses of the power. Let us go into some of the aspects dealt with by the author, in more detail.

The Hierarchical Organizations in SEBs

The following figure provides a basic description of the organizational hierarchy in a typical State Electricity Board.

As shown in the figure, SEB is headed by a Chairman who is assisted by various members of the Board. These members represent functions such as technical services/operations, finance, accounts, etc. The state SEB controls zones, circles, divisions, subdivisions, etc., headed by the Chief Engineer, Superintendent, Executive Engineer, SDO and Junior Engineer respectively. The Chairman is a political appointee. With so many functions and sub functions in the SEB, the areas of accountability tend to get blurred. The problem is basically that so many levels really do not show the clear transparency and accountability, and responsibilities are all overlapping which further blurs the issue.

The administrative functioning is also very haphazard and needs a number of clearances between levels. The authorization of expenditure requires a huge administratve effort, with several technical and administrative clearances, and is likely to take a disproportionate amount of time. Moreover, it is often the case that the respective roles of the Secretary (power) in the State Government and the Chairman of the Electricity Board are overlapping, thereby

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adding to the confusion, and decision-making becomes a matter of political clout and standing, rather than technical or financial suitability.

**Budgeting and Expense Allocation**

There are various issues for serious consideration, one of the most serious being the system of budgetary allocations. The budget is operated according to the public accountancy rules. There is neither the possibility of relocating funds from one budget to another (capital, revenue or establishment) or reallocating from one activity to another. There is also the compulsion to spend the money before the end of the financial year, whether the projects are ready or not. All this leads to poor credibility, poor habits of spending and slipshod creditworthiness. This reduces the creditworthiness of the SEBs thereby reducing the chances of external funding sharply. The whole burden therefore becomes a liability on the state’s exchequer.

Even if the activity and the budgeting are right, there is a lot of ambiguity in utilizing
the funds, between various levels, especially in matters of allocation between headquarters and field. There is no direct allocation of actual cash to field. Once the budget is decided, the physical inputs of the divisions and circles are provided directly from the board, and are accounted on paper. These allocations are granted only on duly argued requests by the fields along a process starting only at the moment the needs occur.

No actual money is given to the field officers and budget allocations do not allow the field to use of its discretionary authority to standardize operations and evolve a set procedure. Therefore each decision has to be taken separately and thus generates a different flow chart which leads to several complications, delays, and an inability to measure and account for the same.

**Technical and Nontechnical Losses**

State governments and SEBs are two important arms to supply the quality power and both of them are dependent on each other. In this case, the state governments tend to exercise tight control on what they regard as a politically sensitive area. SEBs still enjoy the quasi monopoly in the power sector. Initially it was the electricity departments which used to run things. The SEBs replaced the Electricity Departments in 1956 in the hope that institutions with expertise would come up. The Central Electricity Authority (CEA) was to provide all the guidance and advice to the ministry of power and the SEBs on the policy related technical aspects.

The SEBs are dependent on the respective state governments and thus they are politically influenced. In Punjab, the state government decided to provide free electricity to agriculture and the same trend is now being adopted in Andhra Pradesh, Maharashtra and Tamil Nadu also. When the free power became impossible in Punjab, the government decided to install the metering facility and introduced a flat rate based on the specification of pumpsets. The political influence was such that the tariffs did not increase over the time and the subsequent transmission losses created more burden on the SEBs. It is, however, doubtful that the subsidies given by the SEBs for the rural electrification reach the targeted users, which are the farmers. Thus there is a crucial need to make the system efficient without compromising on the financial status.

**Tariffs and the Financial Situation**

India lives in a world of differential tariffs for electricity. Agricultural sector needs to pay less than the domestic or industrial sector and the domestic users have to pay less than the industries. This differential leads to a substantial corruption because there could be considerable savings, on redesignation of a consumer. Such a differentiated tariff structure is created and continued because of the

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<th>Amounts of Money to be Paid by the SEBs to the Central Sector Power Undertakings</th>
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<td><strong>By March 1997</strong></td>
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<td><strong>By March 2001</strong></td>
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Source: Planning Commission
political compulsions and the societal demographics as well. The state governments have to subsidize the financial deficits through heavy subsidies to the SEBs. This has led the SEBs to an even more difficult financial situation. The preceding table reveals the financial conditions of the SEBs.

Reporting System

The reporting system in the SEBs is totally ambiguous in nature. There are two important types of reports generated in this system i.e., financial reports and technical reports. The technical reports go to the member technical and the billing and other financial reports go to the member finance. It has been found that these two reports are not checked by any forum at the SEBs. The comparison of such reports is important as the member technical is more concerned with the losses of power and the member finance with the budgeting. Unless these two reports show some signs of consistency, it is quite easy to manipulate them without any crosscheck. The agriculture consumption and the theft are two important aspects in reporting the technical losses besides the actual T & D losses. Therefore, unmetered power consumption is often hidden under the heading of agriculture, and hence this tends to lead to a delay in tariff collection. In the billing report, the adjustments are so done, that sometimes more than 100% collection efficiency is reported as the collection of past months is done in the current month. In short, there is no system of consistent crosschecks, by which clear-cut technical and financial status of the SEBs, on a monthly basis, can be evaluated with a degree of certainty.

Reforms

There are two ways of doing this

i) Enterprization of SEBs based on public control, or

ii) Private ownership in whole or part.

The World Bank supports the latter and has been funding several states for the same. There are pros and cons in both the approaches. In the former, the state government might use ways and means to go slowly. Pure privatization has had its problems also, notably in Orissa and Maharashtra. There is also an issue of how to transfer property rights in an organization, where property rights do not exist. The system of performance contracts and MOUs for specific tasks, appears to be via media solution. An MOU is a written contract between the public organization and the government, specifying the objectives and targets to be met. The experiences of similar contract plans/MOU's have been very successful in France and Korea. However, care must be taken that there is not an undue emphasis on “social objectives” when drawing up the MOUs.

In 1998, Kerala restructured the SEB through a new state power policy and established three profit centers i.e., generation, transmission and distribution. But, it is found that these were only paper documents and nothing has been changed in terms of actual ground level operations. If anything has been changed, it is only the new accounting system and there
are hardly any changes in processes, enterprization and authority of the state over the electricity board. The measurement system of physical inputs and outputs remained the same.

There are several risks associated with such projects such as regulatory and business risks, but, in the end, the private investors are more concerned with the value of return of their investment and the certainty of return. Because of “un-enterprised” nature of SEBs, they are unable to win the confidence of the investors because they cannot give a clear indication of the possible range of returns. This “Lack of Enterprization” has led to low transparency about the bidding process and other operations. To win the confidence of the investors, there needs to be an actual and measurable improvement in the ways human resources, management and the operations work. Otherwise the investors will devalue the projects, and, in some cases, there will be not a single bidder as in the distribution case of central zone of Orissa. The OERC in Orissa, could not get a grip on what was happening vis-a-vis the collection percentages, which kept on raising. The privatization of distribution in Delhi is a success story as the state government has contractualized anything that could be done so. The rights of the private distribution company were laid down very clearly, thus allowing the said parties to have a fairly accurate measure of the risks and returns involved.

**Conclusion**

The author has gone into the root processes of the SEBs, particularly the budgetary and operations systems. Basically, there is a need to find a via media between complete privatization and total domination by the State Governments (to the point where the SEBs have no identity of their own). The book discusses the pros and cons of such issues, both from an investors’ perspective as well as a state’s perspective. The financial and budgetary systems, as well as the operational autonomy of the SEBs, need a great deal of revision. There needs to be standardization of the reporting system, reduction in the number of reports (there were as many as 177 in Haryana Electricity Board) and greater consistency between the various reports, so that crosschecks can be made. Manipulations can still be there, but there is every chance that they may be found out someday in black and white. The allocation of authority, especially at the field levels, needs to be improved, and standard problems should draw standardized responses basically, in majority of the cases.

One of the more acceptable ways to improve the functioning is to improve the system of contracting for specific tasks. From this could grow further avenues to improve the health and operations of the SEBs, thereby allowing them to attract the capital at some stage. It is going to be a long and tedious process, but, the first steps have to be taken hopefully.

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