

Annexure I

**Advice of the MERC to the State Government
on the restructuring of MSEB**

- Response on Specific issues

(Accompaniment to Commission's letter No. MERC/Legal/120/927 dated
May 14, 2004 to Secretary (Energy), Government of Maharashtra)



1. The State Government, through its letter dated April 13, 2004 has referred several issues pertaining to the restructuring of the Maharashtra State Electricity Board (MSEB) for advice of the Commission. Advice of the Commission has also been sought on other matters that may be relevant for the restructuring of MSEB. In response to this reference from the State Government, the Commission is advising the State Government in accordance with the provisions of Section 86 (2) (iii) on the important issues and considerations. The Commission is keen that the statutory deadline of June 9, 2004 for restructuring of the sector is met, and hence is basing its views on the information presently available to it.
2. **Distribution company formation:** The State Government has outlined three options on distribution company formation, as stated below:
 - (i) Option 1: Extension of existing structure through a single distribution company being vested with the distribution business of MSEB
 - (ii) Option II: A traditional or balanced distribution company structure featuring three distribution companies having comparable urban and rural consumer mix
 - (iii) Option III: Urban-rural structure featuring two urban and four rural distribution companies

The State Government has requested the Commission to indicate its preference among the above options. It appears from the State Government's letter and the presentation made to the Commission on April 7, 2004 that the State Government is inclined in favour of Option III for restructuring of the distribution business of MSEB. The Commission appreciates the need to focus better on efficiency improvements and also for permitting competitive response through price reductions to prevent flight to captive generation or alternate supplies under open access, as envisaged in Option III. However, the Commission desires to specify certain criteria that need to be fulfilled while restructuring MSEB.

- (i) The distribution companies formed should be manageable in size, in terms of the system demand, number of consumers served and the geographical spread of the utility.
- (ii) While some dissimilarities in size, consumer mix (revenue potential) and other attributes is possible, the State Government should ensure that the dissimilarities do not result in a situation that makes the operations of any particular company unviable.
- (iii) The principles for allocation of PPAs should be determined upfront. While an optimal cost allocation based on the "capacity to pay" of each distribution business may be necessary, certain risk factors would need



consideration (e.g. reliance on specific stations, hydrology risks, risks arising out of consumer mix changes, etc).

- (iv) In view of the potential differences in operating parameters and consumer mix across distribution companies, preventing divergence of tariffs would be a difficult task. The State Government should formulate specific mechanisms as a part of the restructuring process to ensure that objectives of end use tariff uniformity across the State for particular tariff categories (if any) are not vitiated.
- (v) The State Government should consider innovative arrangements on rural distribution management through franchising arrangements to reduce the high level of losses in the rural areas. The Commission notes with concern that certain rural circles have Aggregate Technical and Commercial Losses (AT&C) losses in excess of 80%.

In view of the complexities involved the restructuring can be undertaken in a phased manner, with the basic requirements for compliance with the Electricity Act, 2003 provisions being adhered to initially.

3. **Power purchase agreements:** The State Government has made points specific references on this matter.

- (i) All thermal generating stations of MSEB in one generating company.
- (ii) Hydro stations are to be allocated on a pro-rata basis to the distribution companies.
- (iii) Cheaper stations are to be allocated to rural distribution companies based on "capacity to pay".

The Commission believes that the decision on the number of successor generating companies to be formed needs to be taken by the State Government based on administrative convenience and the operational synergies that may exist between generating stations.

For hydro stations and other stations that are to meet the peaking load, the decision of PPA allocation needs be taken considering the objectives of cost minimisation requirements, cross-subsidy transfer issues between distribution companies (if any) and operational constraints. The Commission believes that it may be beneficial (particularly in the transition period) to establish a trading company that is vested with the peak load stations, and also mandated to trade on behalf of the distribution companies. The State Government may look into this option while deciding upon the succession structure of MSEB.



Differential allocation of PPAs based on paying capacity of the distribution companies would become necessary under Option III to facilitate price stability in the transition period. However, the MSEB stations where the PPAs are to be developed now, the PPAs should typically be restricted to a term of three to five years. This will ensure flexibility for subsequent changes after clarity emerges on tariff rationalisation, cross-subsidy elimination and loss reduction post unbundling. Some of the stations may also participate in competitive wholesale markets in future. This would aid market development by deepening the competitive wholesale markets.

4. **Transmission and SLDC:** The State Government proposes to form a Transco that would conduct the STU and SLDC functions of MSEB.

The Commission is in agreement with this approach for the present. The operations of the STU and SLDC are closely linked, and the organisational separation of these two functions should be undertaken only after robust systems and processes are established for interaction between the two.

While having recommended operation of the SLDC by the STU for the present, the Commission is of the view that the accounts of the SLDC must be maintained separately from that of the STU. Operationally, the SLDC should be independent of the STU. The State Government, while restructuring MSEB, should consider appropriate organisation structures for these functions. The State Government may consider establishing a representative body from the industry to oversee the operations of the SLDC periodically, particularly on matters like market rules, operating codes, dispute resolution, etc. All major generators and suppliers, transmission organisations and distribution companies should be represented on this body.

5. **Differential allocation of debt:** In view of the lower paying capacity of the rural distribution companies, the State Government proposes to allocate lower or zero debt to the rural distribution companies, while allocating higher debt to the urban companies.

Redistribution of liabilities between entities in order to bridge differences in financials and performance may be acceptable to a reasonable extent. However, the Commission is not in favour of excessive use of liability allocation as a means to bridge differences between the distribution companies. This could create difficulties for the companies as tariffs are rationalised further. In general the debt allocated should not be disproportionate to the assets of the distribution company.

6. **Licensing area for issue of second or subsequent distribution licenses:** The State Government has requested the Commission's views on the second distribution



license area.

On this matter the Commission will have to be guided by the contents of the Electricity Act, 2003, and the policies formulated under it. The Commission appreciates that there could be opportunities for the new entrants to “cherry pick” more remunerative areas and that this could affect the operations and finances of the successor entities of MSEB. However, the intent of the Act is to promote competition and the Commission is averse to recommending any structural measures that could be perceived to be negation of the intent of the Act in any manner.

7. **Schedule of open access and principles of surcharge determination:** The State Government suggested that successful fruition of the proposed restructuring would require minimisation of adverse impact of open access for the distribution companies for some time. It has also requested for clarity on the methodology to be adopted by the Commission for surcharge computation.

The Commission is in the process of formulating the regulations on open access and the same will be notified by June 9, 2004. The regulations may envisage suitable studies over a period of time for introducing open access in a phased manner, and for determining the cross-subsidy surcharge.

To send the right economic signals it may be necessary to adopt Long Run Incremental Cost (LRIC) as the basis for the surcharge computation. However, the methodology to be adopted would depend on the availability of information. Aspects such as these would also depend on the contents of the National Tariff Policy.

8. **Rationalisation of tariffs and implementation of Multi-Year Tariff (MYT):** The State Government has suggested that the tariffs should be rationalised over a period of five years at the minimum to prevent any adverse financial impact and tariff shocks.

The philosophy of the Commission in this regard is well articulated in all the tariff orders of the Commission. The Commission has undertaken several measures in this regard as recounted below.

- Tariff rates and structures have been progressively rationalised;
- Two-part tariffs featuring separate fixed and variable charges have been introduced and minimum charges have been withdrawn;
- Time of day tariffs have been introduced for industrial consumers to encourage efficient consumption of electricity;
- Power factor incentives have been introduced to encourage consumers to improve power factor;



- A transparent Fuel and Other Cost Adjustment (FOCA) mechanism has been introduced to ensure that external cost changes are accounted for within the year itself;
- Reliability charges have been envisaged to ensure that a link is established between the quality of supply and the price of power.

In the absence of information for application of more precise methods, the Commission has adopted the average cost benchmark to determine tariffs in its past orders. In future it may become necessary to compute the tariff and subsidy requirements for the various consumer classes using more precise costing mechanisms. However at this stage, till there is greater certainty on the data regime, it will be difficult for the Commission to define the methodologies to be adopted and the timelines. In principle, the Commission remains committed to the implementation of cost based tariffs and progressive reduction and elimination of cross-subsidies.

The Electricity Act, 2003 also envisages implementation of a Multi-Year Tariff (MYT) framework¹ featuring Performance Based Regulation. Such a framework would provide powerful incentives and disincentives to manage costs (including the costs on account of T&D losses) and increase revenues, and the Commission intends to implement an MYT framework at the earliest. In any event, MYT frameworks typically do not specify the end use rates to be applicable for any category. Instead they incorporate transparent and formulaic mechanisms for price or revenue allowance determination and incentivisation of superior performance.

- 9. Differential loss levels and targets for urban and rural areas:** The State Government has pointed out the need for recognising the differences in opening loss levels and loss reduction targets for the various distribution companies, and has invited the views of the Commission on the matter.

Till date, under the present integrated operations of MSEB, the Commission has evaluated performance based on the overall operating performance of MSEB as a whole. The disaggregation of the distribution business would permit the establishment of operating targets for the individual distribution companies. In fact the critical parameters (e.g. distribution loss, collection efficiency) could be tracked at the circle level to bring in greater focus on performance. The Commission recognises the need to consider the starting performance level on such parameters, which will inevitably vary between the distribution companies, and also different improvement trajectories. The MYT framework would typically provide higher incentives to those companies that have a poor starting performance level. This would encourage them



¹ Section 61 (f)

to bring down the inefficiencies at an accelerated pace, benefiting both the distribution companies and the consumers.

10. **Specific subsidies for distribution companies:** The State Government has invited the views of the Commission on whether the provision of specific subsidies with upfront loss reduction and collection efficiency improvement targets would incentivise the distribution companies to gear up to market conditions and also to meet their fund requirements during the transition period.

Reduction in losses and addition of capacity would require outlay of considerable capital during the plan period. The State Government had earlier estimated that over Rs. 30,000 crores of investment may be required in the sector, with over 18,000 crores in transmission & distribution. These investments would be critical to the success of the financial restructuring plan, in terms of reducing power purchases from external sources and reducing T&D losses as directed by the Commission, and also implementation of open access as may be directed by the Commission. The Commission recommends that the State Government should evolve a plan for funding of equity infusion as necessary in addition to borrowings by the successor entities to sustain the proposed investment plan.

Timely payment of subsidy will be critical to the financial health of the successor entities. Given that cross-subsidy is to be phased out within a reasonable timeframe, targeted subsidy would be the primary mechanism for the entities to recover the costs of supply to particular consumer categories. Upfront commitment on subsidies may also provide the distribution companies the necessary comfort on operations and investments. The Commission is in favour of establishment of a dedicated power sector reform fund through which State Government's payments to and receipts from the sector (including dividends, taxes and duties) may be routed.

11. **Other issues:** The State Government has requested the views of the Commission on any other issue that may be relevant. The views of the Commission in this regard are provided below.

(i) **Asset Valuation:** Section 131 (2) permits valuation of assets based on revenue potential. The approach to determining the revenue potential should be scientific and should not result in ad-hoc asset valuation. Consistent with the stated objective of the State Government, care should be taken to ensure that there is no tariff shock on this account. Discrepancies between the financial values of assets and physical assets transferred should be prevented;

(ii) **Overdue receivables:** The Commission deems it undesirable to carry forward the high level of receivables present on MSEB books to the



successor entities. The aging analysis of the receivables profile of the Board suggests that a significant portion of the receivables may practically not be realisable. The Commission recommends that the FRP should incorporate:

- Adequate provisioning for non-realisable receivables so as to present viable opening balance sheets to the successor entities
- A clear plan and timeframe for improvement in collection efficiency

(iii) **State Government receivables:** The Commission observes that a significant portion of receivables comprises dues from State Government agencies. The State Government should evolve appropriate mechanisms for settlement of these receivables by ensuring early settlement of these dues or their write-off against equity, accrued payments to the State Government or outstanding loans from the State Government.

(iv) **Contingent liabilities:** The Commission is of the opinion that the turnaround plan for the entities should not be burdened with excessive risks beyond the control of the entities. Therefore, the Commission recommends that the entities should not be burdened with contingent liabilities, which place the FRP at risk. This has been the practice in several states that have restructured in the past. The investments/liabilities due to DPC should be kept out of the restructuring exercise. This is consistent with the approach of the Commission articulated in its various tariff orders.

(v) **Efficient scheduling for minimising power procurement costs:** The formation of the distribution companies and the allocation of generating stations to these distribution companies could result in potential loss of efficiencies that are ordinarily available in centralised dispatch by the SLDC. The Commission is concerned that unless adequate rules, systems and processes are implemented by the successor entities of MSEB, the procurement costs could potentially balloon on account of inefficient dispatch, thus affecting the consumer. The importance of effective scheduling and dispatch arrangements, along with numerical illustrations, is provided separately in the detailed recommendations of the Commission.

(vi) **Imbalance management:** The Commission is of the view that the ABT arrangements would need to be extended to the in-State generators and loads for handling imbalances vis-à-vis schedules and settlement thereof. The ABT mechanism would also serve as a trading platform and would thus promote efficiency and market development. The Commission convened a meeting with the utilities and licensees on the matter on March 4, 2004, during which the Commission provided additional directions to facilitate the



development of an implementation roadmap and undertake implementation in a time bound manner. The State Government on its part may facilitate the process as required.

- (vii) **Settlement:** After the formation of the distribution companies both scheduled trades and imbalances would need to be settled financially. Since the number of interchanges would typically be very large for all generators, loads and also third parties accessing the networks, suitable IT systems would need to be implemented. In particular, since pooling of generation may be necessary for cost minimisation, the settlement rules would feature added complexities that would need to be considered. This would involve considerable implementation effort, and the Commission advises that action should be initiated in this regard at the earliest.
- (viii) **Metering and communication:** For operationalising the distribution companies, installation of meters of necessary accuracy class and adequate features for telemetry is essential both for energy accounting and for load management. The Commission advises the State Government that the matter may be expedited after undertaking necessary review on matters involved, including on the identification of boundaries between the successor entities and corresponding metering and communication requirements.

As is evident from the foregoing, the restructuring agenda is elaborate and complex. It involves not only formation of new companies and transfer of business, but also changes in business processes and implementation of technological tools to manage the restructured sector operations. The State Government must ensure that the MSEB and its successor entities are adequately aware of their responsibilities consequent to restructuring and are equipped to deal with the complexities. Significant capacity development will be necessary in the successor entities of MSEB. This indeed poses a great challenge and the Commission is concerned on whether the MSEB, given its past operational history will be equal to the task.

As has been mentioned earlier, the Commission is very keen that the June 9, 2004 deadline is adhered to for restructuring of MSEB as required by Section 131 (2) of the Electricity Act, 2003. However Section 131 (4)² also permits further restructuring of the successor entities by the State Government. If necessary, in accordance with these provisions of the Electricity Act, 2003, the restructuring can be undertaken in a

² Section 131 (4), Electricity Act, 2003 The State Government may, after consulting the Government company or company or companies being State Transmission Utility or generating company or transmission licensee or distribution licensee, referred to in sub-section (2) (hereinafter referred to as the transferor), require such transferor to draw up a transfer scheme to vest in a transferee being any other generating company or transmission licensee or distribution licensee, the property, interest in property, rights and liabilities which have been vested in the transferor under this section, and publish such scheme as statutory transfer scheme under this Act.



phased manner, with the basic requirements for compliance with the Act provisions being adhered to initially. Thus Option I on distribution company structuring referred to in the State Government's letter can be adopted as a transition arrangement only if this is deemed necessary to comply with the Electricity Act, 2003. Subsequent restructuring measures can be undertaken to usher a more permanent sector structure. However, even the subsequent measures need to be undertaken in a time-bound manner to ensure that reform objective are met in a reasonable time-frame.

