### Before the

# MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai – 400 005

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## Case No. 65 of 2006

## IN THE MATTER OF

<u>Determination of Annual Revenue Requirement (ARR) of Maharashtra State</u>

<u>Electricity Distribution Company Ltd. (MSEDCL) for the Control Period from</u>

<u>FY 2007-08 to</u>

FY 2009-10 and Tariff for FY 2007-08

Dr. Pramod Deo, Chairman Shri A. Velayutham, Member Shri S. B. Kulkarni, Member

Date of Order: April 27, 2007

## ORDER

Upon directions from the Maharashtra Electricity Regulatory Commission (Commission), Maharashtra State Electricity Distribution Company Limited (MSEDCL), submitted its application for approval of Annual Revenue Requirement and Multi Year Tariff Petition for the first Control Period from FY 2007-08 to FY 2009-10, under affidavit. The Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by MSEDCL, all the objections, responses of the MSEDCL, issues raised during the Public Hearing, and all other relevant material, hereby issues this Operative Order on the determination of the Annual Revenue Requirement (hereinafter referred to as ARR) for the Control Period from FY 2007-08 to FY 2009-10, and determination of tariff for wheeling of electricity and retail sale of electricity for MSEDCL for FY 2007-08, as under.

MSEDCL is a Company formed under the Government of Maharashtra General Resolution No. ELA-1003/P.K.8588/Bhag-2/Urja-5 Dated January 24, 2005 with effect from June 6, 2005 according to the provisions envisaged in the Electricity Act 2003. MSEDCL is in the business of distribution and supply of electricity in the State, except the Mumbai license area.

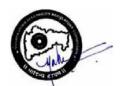
MSEDCL filed an application for approval of Annual Revenue Requirement (ARR) and Multi Year Tariff for the first Control Period from FY 2007-08 to FY 2009-10, on December 29, 2006, under affidavit, before the Commission, in accordance with the provisions of the Electricity Act, 2003, on the basis of audited accounts for FY 2005-06, and half-year actuals for the first half of FY 2006-07.

On preliminary scrutiny, the Commission observed certain inconsistencies and data gaps in the ARR and MYT Petition submitted by MSEDCL, and directed MSEDCL to submit additional data and clarifications, so that it could conduct a Technical Validation session. Thereafter, MSEDCL submitted clarifications and additional data vide its affidavit dated January 19, 2007.

The Commission held a Technical Validation Session in the presence of authorized consumer representatives and others on January 25, 2007. During the Technical Validation session, several other discrepancies and data inconsistencies/gaps were identified and the Commission directed MSEDCL to submit the additional data and clarifications, to enable the Commission to admit the MYT Petition. The Commission further directed MSEDCL to include the impact of the un-recovered FAC on account of short-term power purchase during the period from April 2006 to September 2006, along with carrying cost, in its ARR computations, and propose tariff accordingly.

MSEDCL submitted the additional data and clarifications along with its revised MYT Petition under affidavit, and the revised ARR and MYT Petition was admitted by the Commission on February 8, 2007. MSEDCL was directed by the Commission to issue a Public Notice in leading newspapers, and to make copies of its Petition available at its designated offices, to enable interested stakeholders to submit their comments and objections to MSEDCL's ARR and MYT Petition.

The Commission invited suggestions from consumers and all stakeholders and held Public Hearings at Amravati, Nagpur, Aurangabad, Nashik, Pune, and Navi Mumbai during the period from March 5 to March 17, 2007. Consumer Representatives also



participated actively in this process. The Commission based on study of all representations and issues raised during the Public Hearing and through written submissions, determines the ARR of MSEDCL for the three year period from FY 2007-08 to FY 2008-10, and the tariff for wheeling of electricity and retail sale of electricity for MSEDCL for FY 2007-08, through this Operative Order dated April 27, 2007. The tariffs will come into force prospectively, from May 1, 2007, and will remain in force till March 31, 2008.

### The salient features of the Commission's Order are as follows:

- The Commission has undertaken truing up of the ARR and revenue earned by MSEDCL in FY 2005-06, on the basis of the audited accounts of MSEDCL for the period from June 6, 2005 to March 31, 2006, and MSEDCL's share of expenses and revenue for the period April 1, 2005 to June 5, 2005, as per the audited accounts of the erstwhile MSEB.
- 2. The amount of truing up sought by MSEDCL for FY 2005-06, in its MYT Petition was Rs. 1064 crore. On the Commission's directions, MSEDCL submitted the reconciliation of the accounts between MSPGCL, MSEDCL and MSETCL for the period when the erstwhile MSEB was in existence, and after accounting for the actual revenue earned by MSEDCL in FY 2005-06, including the revenue earned from FAC. The revised amount of truing up sought by MSEDCL was consequently reduced to Rs. 475 crore.
- 3. The truing up for FY 2005-06 shows that MSEDCL has a surplus of Rs. 563 crore in FY 2005-06, which has been adjusted against the approved revenue requirement for FY 2007-08. The major heads of over-recovery are on account of expenditure claimed towards payments made to MSPGCL and MSETCL, as compared with the amounts shown as income in their respective accounts by MSPGCL and MSETCL, respectively, for FY 2005-06. The Commission has ensured that the amount shown as expenditure by MSEDCL towards payment to MSPGCL and MSETCL matches the billed revenue indicated by MSPGCL and MSETCL in their respective accounts. Also, the over-recovery of 124 crore by MSETCL in FY 2005-06 as determined in the Order of MSETCL in (Case 67 of 2006), has been reduced from the ARR of MSEDCL for FY 2005-06.
- 4. The un-recovered Fuel Adjustment Cost (FAC) Charge on account of short-term power purchase during the period from April 2006 to September 2006, along with carrying cost, amounting to Rs. 860 crore, has been included in the ARR to be recovered during FY 2007-08.



- 5. The Commission has projected the sales and power purchase requirement for only the first year of the Control Period, given the prevailing demand~supply gap and the high level of uncertainty regarding the estimates of unrestricted demand and the availability of power. The Commission has projected the sales in FY 2007-08 at 54711 MU, as compared to MSEDCL's projection of 55764 MU. The Commission has estimated the un-metered agricultural consumption by considering the existing norm of 1318 hours/HP/year, which is based on the consumption data for metered consumers, for want of better quality information even during this MYT exercise.
- 6. As indicated earlier, the Commission intends to move towards a feeder-wise approach in six months time, for energy accounting as well as for load shedding protocol. MSEDCL is directed to ensure that the necessary DTC metering and feeder metering arrangements are completed as scheduled, and the feeder-wise energy related information with consumer database is compiled and submitted to the Commission by end-October 2007.
- 7. The Commission has estimated the distribution loss level at the beginning of FY 2007-08 as 31.7%, indicating a loss reduction of around 3.25% by MSEDCL in FY 2006-07, which is a reasonably good performance considering that this improvement has been shown without any increase in the un-metered agricultural consumption.
- 8. The Commission directs MSEDCL to reduce the distribution losses by 4% during each year of the Control Period, through a combination of reduction of both commercial and technical losses. The Commission is of the opinion that this is an achievable target, which will also provide an incentive to MSEDCL to further improve its performance in this regard. The scheme for employee incentives and disincentives formulated by MSEDCL, linked to distribution losses in the respective regions, will also facilitate the accelerated reduction of distribution losses.
- 9. The Commission is of the opinion that in a supply shortage scenario, reduction in technical losses will also result in additional sales, to complement the additional sales due to commercial loss reduction, which will result in additional revenue for MSEDCL. The additional sales have been considered at around 3205 MU, which is expected to give additional revenue of at least Rs. 1063 crore, even if the additional sales are billed at the existing weighted average billing rate of MSEDCL. The Commission has however, not reduced the power purchase on this account and has added the expected revenue while determining the revenue gap.
- 10. The Commission has estimated the total quantum of power purchase during FY 2007-08 at 85123 MU, as compared to MSEDCL's projection of 84900 MU. Of this, non-costly sources of power are estimated to contribute around 80573 MU,



- and the balance 4550 MU has been considered from costly sources of power. The benchmark rate for classification of power purchase as non-costly and costly has been retained as Rs. 4 per kWh.
- 11. The power purchase quantum projected by the Commission in this Order is not a ceiling quantum, but an estimated quantum based on the present sales projection, and the allowed level of distribution loss. Obviously, if the actual sales increase beyond the levels considered in this Order, then the power purchase quantum would also increase correspondingly. Further, the MERC Tariff Regulations also provide for short-term power purchase and the procedure to be observed by the distribution licensee in the event of unforeseen wide variation in the sales forecast. However, any additional power purchase on account of its failure to reduce distribution losses will be to MSEDCL's account, and the treatment of the same will be governed by the provisions of the MERC Tariff Regulations. MSEDCL should not increase the hours of load shedding for any category/region, citing the power purchase quantum approved in the Commission's Order as a ceiling figure.
- 12. Ratnagiri Gas and Power Private Limited (RGPPL) is projected to generate power using naphtha during the period from April to October 2007, and hence, purchase from (RGPPL) during this period has been considered as costly power, along with power purchased from traders. RGPPL is expected to generate power using gas during the balance five months of FY 2007-08, and hence, power purchase from RGPPL during this period has been considered as cheaper power. The rate of power purchase from RGPPL has been considered as Rs. 5.01 per kWh and Rs. 3.05 per kWh, for costly and non-costly power, respectively, based on previous year's actuals and expected trends.
- 13. The cost of power purchase from MSPGCL in FY 2007-08, has been considered in consonance with the Commission's Order on ARR and Tariff for MSPGCL stations for FY 2007-08, in Case 68 of 2006, issued on April 25, 2006. The quantum and cost of power purchase from other sources has been determined on the basis of submissions made by MSEDCL and prevailing rates.
- 14. The transmission charges payable by MSEDCL have been considered in accordance with the Commission's Order on transmission tariff in Case 86 of 2006, issued on April 2, 2007.
- 15. The Commission has approved the Operation & Maintenance expenses comprising employee expenses, Administration & General (A&G) expenses, and Repair & Maintenance (R&M) expenses, by considering a normative increase linked to inflation indices, over the approved expenditure for FY 2006-07.
- 16. The Commission has considered the capital expenditure and projected capitalisation during the three years of the Control Period, on the basis of the schemes approved by the Commission till a particular date.



- 17. The capital related expense heads, viz., interest, depreciation and Return on Equity (RoE) have been determined in accordance with the Regulations, on the approved capital expenditure.
- 18. MSEDCL's prime responsibility as a distribution licensee is to ensure 24 hour supply to its consumers. However, MSEDCL has been increasing the load shedding to its consumers, with no reduction envisaged in the near future. The Commission is of the opinion that MSEDCL needs to be provided with an appropriate disincentive in the ARR and tariff mechanism, to ensure that MSEDCL takes all the necessary steps to minimise the load shedding in the State. One of the methods of doing this is to link the RoE due to MSEDCL to the average hours of supply, as proposed by several objectors. The Commission proposes to undertake due regulatory procedure before any such action, and has hence, not reduced the RoE in this Order, but may be constrained to initiate such steps in absence of any affirmative actions on the part of the distribution licensee.
- 19. The interest on working capital requirement and consumer security deposit has been computed in accordance with the MERC Tariff Regulations.
- 20. The Commission has considered provision for bad debts at 1.5% of billed revenue, in accordance with previous trend.
- 21. The Income Tax has been projected to remain at the levels estimated for FY 2006-07.
- 22. The Aggregate Revenue Requirement (ARR) of MSEDCL over the three years of the Control Period has been determined by the Commission in this Order. However, the ARR excludes the power purchase cost and the transmission charges payable in the second and third year of the Control Period, viz., FY 2008-09 and FY 2009-10, which have not been determined due to uncertainties in the sales quantum, power purchase quantum and cost, and requirement of annual determination of transmission tariff. Also, the ARR for FY 2007-08 includes only the expenditure on the non-costly power purchase, as the expenditure on purchase of costly power has been considered separately.
- 23. The ARR for FY 2007-08 to be recovered through retail sales of electricity has been determined as Rs. 18933 crore, as compared to Rs. 18065 crore projected by MSEDCL, primarily on account of the fact that MSEDCL had under-estimated the power purchase cost by considering the rate of purchase from MSPGCL and the transmission charges payable at the prevailing rates. Moreover, in its projections, MSEDCL had considered the entire purchase from RGPPL under costly power, and hence, the expenditure on power purchase from RGPPL was not included in the base ARR.



- 24. The revenue from existing tariffs for sales made through purchase of non-costly power for FY 2007-08 has been determined as Rs. 16746 crore, as compared to Rs. 15587 crore estimated by MSEDCL.
- 25. In addition, the annual standby charges of Rs. 396 crore payable by Mumbai licensees, viz., REL, BEST and TPC, for the standby facility provided by MSEDCL, has been considered as revenue for MSEDCL.
- 26. The total revenue from existing retail tariff after including the revenue due to additional sales (on account of loss reduction) at existing tariffs, works out to Rs. 18205 crore, as compared to MSEDCL's projection of Rs. 15983 crore.
- 27. The resultant revenue gap for FY 2007-08, thus works out to Rs. 728 crore, as compared to Rs. 2083 crore projected by MSEDCL.
- 28. After considering the surplus of Rs. 563 crore in FY 2005-06, and the unrecovered FAC of Rs. 860 crore, the net revenue gap for FY 2007-08 works out to Rs. 1025 crore, as compared to MSEDCL's Petition for Rs. 3949 crore, resulting in an average increase in total revenue requirement by around 5.6%.
- 29. The Commission, in line with its directions in March 10, 2004 Tariff Order (Case 2 of 2003), while keeping in mind the principles of 'promissory estoppels', directs MSEDCL to refund Rs. 500 crore of Regulatory Liability Charges (RLC) to the specified consumer categories in FY 2007-08, out of the total amount of around Rs. 3225 crore collected by MSEDCL through RLC over the period from December 2003 to September 2006, which were like a loan given by these subsidizing categories to help MSEDCL tide over the financial crisis due to its heavy distribution losses. Being a refund of charges recovered, the amount has not been considered while determining the ARR. This is only a token amount, amounting to around 16% of the RLC collected from the selected consumer categories. It is expected that with progressive improvement of MSEDCL's operations in future years, the balance amount will be refunded in the near short-term.
- 30. The Commission has continued with the approach of allocating costly power to only those categories which are getting the benefit of reduced load shedding, while the non-costly power has been distributed equally to all categories and regions. The expenditure on costly power is to be recovered through the levy of Additional Supply Charges (ASC) from the specified consumer categories.
- 31. The Commission has simplified the method of levy of ASC, by allocating the costly power only to industries connected at EHV levels or express feeders, Railways, and industries facing one day load shedding. The Commission has also reduced the quantum of consumption on which ASC will be levied. ASC will now be levied on 24% of the consumption for continuous industries and Railways, as compared to 42% earlier, and on 11% of the consumption for industries facing one



day staggering, as compared to 28% earlier, irrespective of the location in the State, since the load shedding for these categories is the same, irrespective of their location. The revised ASC matrix giving the share of costly power consumption is given below:

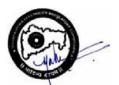
| Sl. | Consumer Category               | Percentage of costly power |
|-----|---------------------------------|----------------------------|
|     |                                 | consumed                   |
| 1   | HT-I Industry                   |                            |
| 1.1 | Continuous Industry (on express | 24%                        |
|     | feeder)                         |                            |
| 1.2 | Non-continuous Industry (not on | 11%                        |
|     | express feeder)                 |                            |
| 2   | HT-III Railways                 | 24%                        |
| 3   | HT-IV Water Works               |                            |
| 3.1 | Express feeder                  | 24%                        |
| 3.2 | Non - express feeder            | 11%                        |
| 4   | LT-V Industry (MIDC area)       | 11%                        |

**Note:** ASC will not be applicable for non-continuous industry and water works facing two or more days of load shedding

- 32. ASC will not be levied on industries and water works facing two or more days of load shedding, as well as on other categories like domestic, commercial, etc., irrespective of their location.
- 33. The concept of Incremental ASC has been removed, and any variation in purchase cost of costly power will be trued up with carrying cost at the end of the year.
- 34. The tariff for consumers in Below Poverty Line (BPL) category has not been increased.
- 35. The fixed and demand charges have been reduced, since it is unfair to burden the consumers affected by severe load shedding. MSEDCL will thus, have an in-built incentive to supply more electricity, and recover its fixed cost fully.
- 36. As the severe load shedding of 12 to 15 hours for agriculture category will continue to prevail for some more time, the Commission has decided to retain the agriculture tariffs at the existing level. The tariffs for Lift Irrigation Schemes have been increased slightly, to recover part of the increase in cost of supply, and considering that such schemes would at least get continuous supply of 16 hours at a stretch, as indicated by MSEDCL.



- 37. The Commission has introduced a new consumption slab in the existing LT-1 (Domestic) category, for consumers consuming above 500 units per month. The tariff for domestic category with a monthly consumption upto 300 units has been maintained at around the existing level. For the higher consumption slabs of over 300 units and 500 units per month, the tariff has been specified at higher levels, to act as a disincentive for high consumption.
- 38. Through its Order in Case Nos. 50, 55 and 56 of 2006, dated March 3, 2007, on the Review Petitions filed on MSEDCL's Tariff Order for FY 2006-07, the Commission had ruled that the tariffs in existence for LT V category (erstwhile LTP-G category) would continue to be in force with effect from October 1, 2006 to March 31, 2007, as MSEDCL had not installed the requisite MD meters. In its earlier submissions in this regard, MSEDCL had committed to install all the MD meters for LT-V category, latest by March 31, 2007. The Commission has thus considered that the MD meters have been installed and has computed the revenue accordingly. However, given the earlier experience narrated in above referred review order, MSEDCL will not be permitted to charge the demand charges specified in this Order, till such time MD meters are installed at all the consumers' premises. Till the MD meters are installed, MSEDCL will be allowed to charge only the earlier HP based tariffs, though the revenue has been assessed based on MD based tariffs. The Commission is of the opinion that this is sufficient incentive for MSEDCL to ensure that the MD meters are installed at all the eligible consumers' premises in its own interest.
- 39. The Commission has created two sub-categories within LT-V (LT industrial) category, viz., consumers with sanctioned load of upto and including 20 kW, and consumers with sanctioned load above 20 kW. Demand charges have been specified in Rs/kVA for consumers with sanctioned load above 20 kW, whereas fixed charges in Rs/connection/month have been specified for consumers with sanctioned load of upto and including 20 kW, to ensure parity with other distribution licensees in the State.
- 40. The Commission has introduced a new tariff category for all multiplexes and shopping malls having a sanctioned load more than 20 kW with demand charges of Rs 300 per kVA per month and energy charge of Rs 8.50 per kWh.
- 41. For the Advertisement & Hoarding category, which include flood lights, neon signs at various places and advertisement and hoarding in commercial establishment, the fixed charge has been increased to Rs 400 per month, and energy charge has been increased to Rs 14 per kWh.
- 42. The Time of Day (ToD) tariffs have been retained at the existing levels.
- 43. The Commission reiterates that that HT-V Residential would be applicable only to the Group Housing Societies. MSEDCL had been directed to ensure metering



- arrangements so that consumers currently classified under HT-V Commercial Category, and requiring a single point supply, will have to either operate through a franchise route or take individual connections under relevant category. MSEDCL is directed to ensure compliance with this directive immediately.
- 44. The Commission has directed MSEDCL to adopt Demand Side Management Measures (DSM) and reduce the demand for power in its license area. The cost of such DSM projects shall be allowed by the Commission as a part of the Annual Revenue Requirement of MSEDCL, which would be more than offset by the savings in power purchase cost due to reduction in demand.
- 45. The rebates/incentives and disincentives have been retained with certain rationalisation as required, to make their applicability consistent across the State.
- 46. The tariff categories have been simplified in the case of industries, and only HT industries connected on express feeders and demanding continuous supply will be deemed as HT continuous industry and given continuous supply, while all other HT industrial consumers will be deemed as HT non-continuous industry. This has become necessary in view of the prevailing uncertainty and absence of clarity as regards certification of industries as 'continuous' by the relevant authorities.
- 47. The load shedding protocol to be followed by MSEDCL has been specified in a separate Order of the Commission in Case No. 5 of 2007 dated April 23, 2007.
- 48. Regions and Industrial areas or feeders, desirous of further reduction in load shedding, have the option of going for a distributed generation based franchisee arrangement, which is likely to bring in the desired generation capacity into the State, with the additional cost of generation to be recovered through payment of reliability surcharge determined by the Commission, as in the case of Pune model. With greater quantities of expensive power being allocated to such franchisees, the burden on other consumers will reduce correspondingly.
- 49. The Commission has determined the wheeling charges for eligible open access consumers for each voltage level based on the voltage-wise asset base and capacity levels at each voltage, as submitted by MSEDCL, with certain assumptions. The ARR of MSEDCL has been segregated between wires business and retail supply business in accordance with the principles adopted by the Commission in the previous Tariff Order. Consumers connected directly to the transmission network would not be required to pay the wheeling charges. Open access consumers will pay the wheeling charges and the wheeling loss in kind linked to distribution loss at respective voltage level.
- 50. The cross-subsidy surcharge for eligible open access consumers will continue to be zero, in continuation of the Commission's decision in this regard in the previous Tariff Order.



51. The Commission will undertake the Annual Review of MSEDCL's performance during the last quarter of FY 2007-08. MSEDCL is directed to submit its Petition for Annual Review of its performance during the first half of FY 2007-08, as well as truing up of revenue and expenses for FY 2006-07, with detailed reasons for deviation in performance, latest by November 30, 2007.

The detailed Order will follow.

Sd/- Sd/-

(S. B. Kulkarni) (A. Velayutham) (Pramod Deo)
Member Member Chairman, MERC



Sd/-



#### Before the

# MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

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## **CASE No. 65 of 2006**

Dr Pramod Deo, Chairman Shri A. Velayutham, Member Shri. S.B. Kulkarni, Member

# **ADDENDUM**

Dated April 30, 2007

Reference: Operative Order dated April 27, 2007 (Case No. 65of 2006) in the

matter of Determination of Annual Revenue Requirement and Tariff

for FY 2007-08 under MYT for MSEDCL.

The last line in Para 30 of the Operative Order dated 27<sup>th</sup> April, 2007 in Case No. 65 of 2006 in the matter of determination of ARR in respect of Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) should be read as "<u>The expenditure on costly power is to be recovered through the levy of Additional Supply Charges</u> (ASC) at the rate of Rs.5.36 per unit (kWh) from the specified consumer categories, instead of "The expenditure on costly power is to be recovered through the levy of Additional Supply Charges (ASC) from the specified consumer categories".

Sd/-(S. B. Kulkarni) Member, MERC Sd/-(A. Velayutham) Member, MERC Sd/-(Dr. Pramod Deo) Chairman, MERC

Table 1: Aggregate Revenue Requirement during the Control Period

(Rs. Crore)

| G1 | Sl Particulars  |       | FY 2007-08 |        | FY 2008-09 |        | FY 2009-10 |  |
|----|---|-------|------------|--------|------------|--------|------------|--|
| SI |   |       | Commission | MSEDCL | Commission | MSEDCL | Commission |  |
| 1  | Power Purchase Expenses   | 11974 | 14633      |        |            |        |            |  |
| 2  | Operation & Maintenance Expenses  |       |            |        |            |        |            |  |
| 3  | Employee Expenses   | 1880  | 1522       | 2002   | 1604       | 2133   | 1690       |  |
| 4  | Administration & General Expenses   | 176   | 113        | 187    | 119        | 199    | 126        |  |
| 5  | Repair & Maintenance Expenses   | 408   | 359        | 614    | 378        | 890    | 399        |  |
| 6  | Depreciation, including advance against depreciation                        | 787   | 389        | 907    | 435        | 993    | 490        |  |
| 7  | Interest on Long-term Loan Capital  | 768   | 261        | 1702   | 323        | 2063   | 375        |  |
| 8  | Interest on Working Capital, consumer security deposits and Finance Charges | 301   | 285        | 309    | 285        | 319    | 285        |  |
| 9  | Provisioning for Bad Debts  | 228   | 251        | 251    | 267        | 276    | 283        |  |
| 10 | Other Expenses  | 22    | 2          | 22     | 2          | 22     | 2          |  |
| 11 | Income Tax  | 350   | 86         | 114    | 86         | 91     | 86         |  |
| 12 | Transmission Charges  | 1280  | 1460       |        |            |        |            |  |
| 13 | Contribution to contingency reserves  | 59    | 50         | 88     | 56         | 128    | 63         |  |
| 14 | Incentives/Discounts  | 66    | 66         | 72     | 72         | 79     | 79         |  |
| 15 | <b>Total Revenue Expenditure</b>  | 18299 | 19477      | 6269   | 3627       | 7193   | 3877       |  |
| 16 | Return on Equity Capital  | 597.1 | 409.0      | 719.1  | 430.1      | 779.1  | 449.6      |  |
| 17 | Aggregate Revenue Requirement   | 18896 | 19886      | 6988   | 4057       | 7972   | 4327       |  |
| 18 | Less: Non Tariff Income   | 830.2 | 952.9      | 871.4  | 1071.9     | 916.9  | 1208.6     |  |
| 19 | Aggregate Revenue Requirement from Retail Tariff                            | 18065 | 18933      | 6117   | 2986       | 7055   | 3119       |  |

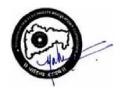


Table 2: Revenue Gap to be recovered through sale of electricity in FY 2007-08

|     |   | FY 2007-08 |            |  |  |
|-----|---|------------|------------|--|--|
| Sl. | Particulars   | MSEDCL     | Commission |  |  |
|     |   |            |            |  |  |
| 1   | Aggregate Revenue Requirement from Retail Tariff                                  | 18065      | 18933      |  |  |
|     |   |            |            |  |  |
| 2   | Revenue from existing tariff  | 15587      | 16746      |  |  |
| 3   | Revenue from Standby Charges  | 396        | 396        |  |  |
| 4   | Revenue due to additional sales at existing tariff (on account of loss reduction) |            | 1063       |  |  |
| 5   | Total Revenue from retail tariff  | 15983      | 18205      |  |  |
|     |   |            |            |  |  |
| 6   | Revenue Gap in FY 2007-08   | 2083       | 728        |  |  |
|     | Add: FAC under-recovery in FY 2006-07 due to                                      |            |            |  |  |
| 7   | short-term purchases  | 802        | 860        |  |  |
| 8   | Add: Truing up requirement for FY 2005-06   | 1064       | -563       |  |  |
| 9   | Total Revenue Gap in FY 2007-08   | 3949       | 1025       |  |  |
|     |   |            |            |  |  |
|     | Average % Increase required in revenue  |            |            |  |  |
| 10  | requirement   | 24.7%      | 5.6%       |  |  |
| 11  | Total Revenue expected in FY 2007-08  | 19931      | 19230      |  |  |
|     |   |            |            |  |  |
|     | Recovery of above revenue   |            |            |  |  |
| 12  | Revenue from revised retail tariffs   |            | 17711      |  |  |
|     | Revenue from additional sales at revised tariffs (due to                          |            |            |  |  |
| 13  | loss reduction)   |            | 1123       |  |  |
| 14  | Revenue from standby charges  |            | 396        |  |  |
| 15  | Total revenue recovery  |            | 19230      |  |  |
|     |   |            |            |  |  |
| 16  | Average Cost of Supply (Rs/kWh)   |            | 3.50       |  |  |



Table 3: Summary of LT Tariff Effective from May 1, 2007

| <b>Consumer Category</b>  | Demand Charges                                     | Energy              |  |
|---------------------------|--|---------------------|--|
| J .                       | (Rs/KVA/month) or (Rs/HP/month) or (Rs/            | Charges (Paise/kWh) |  |
|                           | connection/month)                                  |                     |  |
| LT I - Domestic           | <u> </u>   | <u>'</u>            |  |
| Consumption less than 30  | Rs 3 per service connection                        | 40                  |  |
| Units Per Month (BPL)     |  |                     |  |
| Consumption more than     |  |                     |  |
| 30 Units Per Month        |  |                     |  |
| 0-100 Units               | Single Phase: Rs. 30 per service connection;       | 200                 |  |
| 101- 300 Units            | Three Phase: Rs. 100 per service connection;       | 370                 |  |
| 301-500 Units             | Additional Fixed charge of Rs. 100 per 10 kW load  | 500                 |  |
| Above 500 units (Only     | or part thereof above 10 kW load shall be payable. | 575                 |  |
| balance Units)            |  |                     |  |
| LT II - Non Domestic      |  | <u> </u>            |  |
| 0-100 Units               | Single Phase: Rs. 90 per service connection;       | 320                 |  |
| 101- 200 Units            | Single Phase: Rs. 90 per service connection;       | 400                 |  |
| Above 200 Units           | Single Phase: Rs. 100 per service connection;      | 560                 |  |
| (Only balance Units)      |  |                     |  |
|                           | Three Phase: Rs. 150 per service connection;       |                     |  |
|                           | Additional Fixed Charge of Rs. 150 per 10 kW load  |                     |  |
|                           | or part thereof above 10 kW load shall be payable. |                     |  |
|                           | Optional LTMD based Tariff (LT V tariff) will be   |                     |  |
|                           | available for all consumers at their option        |                     |  |
| LT III - Public Water W   | orks   |                     |  |
| 0- 20 KW                  | Rs 50 per kVA per month                            | 125                 |  |
| >20-40 KW                 | Rs 60 per kVA per month                            | 175                 |  |
| >40-50 KW                 | Rs 90 per kVA per month                            | 250                 |  |
| LT IV - Agriculture       |  |                     |  |
| Un-metered Tariff         |  |                     |  |
| Category 1 Zones*         | Rs. 241 per kW per month                           | 0                   |  |
|                           | (Rs 180 per HP per month)                          |                     |  |
| Category 2 Zones#         | Rs 201 per kW per month                            | 0                   |  |
|                           | (Rs. 150 per HP per month)                         |                     |  |
| Metered Tariff (including | Rs 20 per kW per month                             | 110                 |  |
| Poultry Farms)            | (Rs 15 per HP per month)                           |                     |  |
|                           |  |                     |  |



| LT V - Industrial         |  |      |
|---------------------------|--|------|
| 0-20 kW (upto and         | Rs. 150 per connection per month                               | 300  |
| including 27 HP)          |  |      |
| Above 20 kW (above 27     | Rs. 100 per kVA per month for 65% of maximum                   |      |
| HP)                       | demand or 40% of contract demand, whichever is                 |      |
|                           | higher   |      |
|                           | Rs. 60 per HP per month for 50% of sanctioned                  | 400  |
|                           | load, till such time MD meters are installed for all consumers |      |
| TOD Tariff (in addition t | o base tariff, after installation of MD meter)                 |      |
| 2200 hrs – 0600 hrs       | -  | (85) |
| 0600 hrs – 0900 hrs       |  | 0    |
| 0900 hrs – 1200 hrs       |  | 80   |
| 1200 hrs – 1800 hrs       | 1  | 0    |
| 1800 hrs – 2200 hrs       | 1  | 110  |
| LT VI - Street Light      | 1  |      |
| Grampanchayat, A, B &     | Rs 30 per KW per month   | 230  |
| C Class Municipal         |  |      |
| Council                   |  |      |
| Municipal Corporation     |  | 270  |
| Areas                     |  |      |
| LT VII - Temporary        |  |      |
| Temporary Connections     | Rs 250 per connection per occasion of supply                   | 1050 |
| -Other Purpose            | Ps 200 per connection per casesion of supply                   | 200  |
|                           | Rs 200 per connection per occasion of supply                   | 200  |
| Religious                 | Ps 400 per connection  | 1400 |
| LTVIII - Advertisement    | RS 400 per connection  | 1400 |
| & Hoardings               | Do 200 nor by A nor month                                      | 050  |
| LT IX – Multiplexes &     | Rs 300 per kVA per month                                       | 850  |
| Shopping Malls (above     |  |      |
| 20 kW)                    |  |      |

| *Cat | tegory 1 Zones (with co | nsum | ption norm above 1318 h | ours | /HP/year) |
|------|-------------------------|------|-------------------------|------|-----------|
| 1    | Bhandup (U)             | 2    | Pune                    | 3    | Nashik    |



| #Category 2 Zones (with consumption norm below 1318 hours/HP/year) |           |   |            |   |        |  |
|--|-----------|---|------------|---|--------|--|
| 1  | Amravati  | 2 | Aurangabad | 3 | Kalyan |  |
| 4  | Konkan    | 5 | Kolhapur   | 6 | Latur  |  |
| 7  | Nagpur(U) | 8 | Nagpur     |   |        |  |

## **Notes:**

- 1. FAC will be determined every month based on the FAC Formula approved by the Commission.
- 2. Additional Supply Charges (ASC) will be applicable to specified categories as per the specified matrix
- 3. Billing Demand for LT V categories and LT II category opting for MD based tariff:

Monthly Billing Demand will be the higher of the following:

- a) 65% of the Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
- b) 40% of the Contract Demand



Table 4: Summary of HT Tariff Effective from May 1, 2007

| <b>Consumer Category</b>        | Demand Charges | <b>Energy Charge</b> |
|---------------------------------|----------------|----------------------|
|                                 | (Rs/kVA/month) | (Paise/kWh)          |
| HT I - Industries               |                |                      |
| Continuous Industry (on express | 300            | 310                  |
| feeder)                         |                |                      |
| Non-continuous Industry (not on | 300            | 340                  |
| express feeder)                 |                |                      |
| HT II - Seasonal Industry       | 300            | 435                  |
| HTP – III (Railway Traction)    | 0              | 415                  |
| HT IV - Public Water Works      |                |                      |
| Express Feeders                 | 300            | 300                  |
| Non- Express Feeders            | 300            | 320                  |
| TOD Tariff (for HT I, HT II & H | T III)         |                      |
| 2200 hrs – 0600 hrs             |                | (85)                 |
| 0600 hrs – 0900 hrs             |                | 0                    |
| 0900 hrs – 1200 hrs             |                | 80                   |
| 1200 hrs – 1800 hrs             |                | 0                    |
| 1800 hrs – 2200 hrs             |                | 110                  |
| HT V- Agricultural              | 25             | 130                  |
| HT- VI                          |                |                      |
| Group Housing Society           | 150            | 260                  |
| Commercial Complex              | 150            | 450                  |
| HT VII - Mula Pravara           | 200            | 300                  |
| <b>Electric Co-op Society</b>   |                |                      |

## **Notes:**

- 1. HT V category includes HT Lift Irrigation Schemes irrespective of ownership.
- 2. FAC will be determined every month based on the FAC Formula approved by the Commission
- 3. Additional Supply Charges (ASC) will be applicable to specified categories as per the specified matrix
- 4. HT Industries & HT Water Works (HT I & HT IV)

Monthly Billing Demand will be the higher of the following:

i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours



- ii. 75% of the highest billing demand recorded during preceding eleven months
- iii. 50% of the Contract Demand.
- 5. HT Seasonal Category (HT II)

During Declared Season Monthly Billing Demand will be the higher of the following:

- i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
- ii. 75% of the Contract Demand
- iii. 50 kVA.

**During Declared Off-season** 

Monthly Billing Demand will be the following:

- i) Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
- 6. HT Industrial consumers having captive generation facilities synchronized with the grid will pay additional demand charges of Rs. 20 per kVA per month only for the standby contract demand component.

## **Incentives and Disincentives:**

## Power Factor Calculation

Wherever, the average power factor measurement is not possible through already installed meter, the following method for calculating the average power factor during the billing period shall be adopted-

Average Power Factor 
$$= \frac{Total(kWH)}{Total(kVAh)}$$

Wherein the kVAh is the square root of the summation of the squares of kWh and RkVAh

<u>Power Factor Incentive</u> (Applicable for all HT categories, except HTP III with specific dispensation, and LT III, LT V and LT IX categories)

Whenever the average power factor is more than 0.95, an incentive shall be given at the rate of 1% (one percent) of the amount of the monthly bill including energy charges, ASC, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for every 1% (one percent) improvement in the power factor (PF) above 0.95. For PF of



0.99, the effective incentive will amount to 5% (five percent) reduction in the monthly bill and for unity PF, the effective incentive will amount to 7% (seven percent) reduction in the monthly bill.

<u>Power Factor Penalty</u> (Applicable for all HT categories, except HTP III with specific dispensation, and LT III, LT V and LT IX categories)

Whenever the average PF is less than 0.9, penal charges shall be levied at the rate of 2% (two percent) of the amount of the monthly bill including energy charges, ASC, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for the first 1% (one percent) fall in the power factor below 0.9, beyond which the penal charges shall be levied at the rate of 1% (one percent) for each percentage point fall in the PF below 0.89.

# **Prompt Payment Discount**

A prompt payment discount of one percent on the monthly bill (excluding Taxes and Duties) shall be available to the consumers if the bills are paid within a period of 7 working days from the date of issue of the bill.

# Delayed Payment Charges (DPC)

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 2 percent on the total electricity bill (including Taxes and Duties) shall be levied on the bill amount. For the purpose of computation of time limit for payment of bills, "the day of presentation of bill" or "the date of the bill" or "the date of the bill", etc. as the case may be, will not be excluded.

#### Rate of Interest on Arrears

The rate of interest chargeable on arrears will be as given below for payment of arrears-

| Sr.<br>No. | Delay in Payment (months)                               | Interest Rate<br>p.a.<br>(%) |
|------------|---|------------------------------|
| 1          | Payment after due date upto 3 months (0 - 3)            | 12%                          |
| 2          | Payment made after 3 months and before 6 months (3 - 6) | 15%                          |
| 3          | Payment made after 6 months (> 6)                       | 18%                          |

# Load Factor Incentive

The Commission has retained the Load factor incentive for consumers having Load Factor above 75% based on contract demand. Consumers having load factor over 75% upto 85% will be entitled to a rebate of 0.75% on the energy charges for every



percentage point increase in load factor from 75% to 85%. Consumers having a load factor over 85 % will be entitled to rebate of 1% on the energy charges for every percentage point increase in load factor from 85%. The total rebate under this head will be subject to a ceiling of 15% of the energy charges for that consumer. This incentive is limited to HT-I category only. Further, the load factor rebate will be available only if the consumer has no arrears with the MSEDCL, and payment is made within seven days from the date of the bill or within 5 days of the receipt of the bill, whichever is later. However, this incentive will be applicable to consumers where payment of arrears in instalments has been granted by the MSEDCL, and the same is being made as scheduled. The MSEDCL has to take a commercial decision on the issue of how to determine the time frame for which the payments should have been made as scheduled, in order to be eligible for the Load Factor incentive.

The Load Factor has been defined below:

Load Factor = Consumption during the month in MU

Maximum Consumption Possible during the month in MU

Maximum consumption possible = Contract Demand (kVA) x Actual Power Factor

x (Total no. of hrs during the month less planned load shedding hours\*)

\* - Interruption/non-supply to the extent of 60 hours in a 30 day month has been built in the scheme.

In case the billing demand exceeds the contract demand in any particular month, then the load factor incentive will not be payable in that month. (The billing demand definition excludes the demand recorded during the non-peak hours i.e. 22:00 hrs to 06:00 hrs and therefore, even if the maximum demand exceeds the contract demand in that duration, load factor incentives would be applicable. However, the consumer would be subjected to the penal charges for exceeding the contract demand and has to pay the applicable penal charges).



Table: Summary of Wheeling Charges for eligible Open Access Consumers Effective from May 1, 2007

| Voltage level | Rs/kW/Month |
|---------------|-------------|
| 33 kV         | 38          |
| 22 kV & 11 kV | 245         |

The cross-subsidy surcharge for eligible open access consumers has been specified as zero.

