

## CHAPTER – 2

### REVISED ANNUAL REVENUE REQUIREMENT FOR FY18

#### 1. Revised Annual Revenue Requirement (ARR) for FY18

##### MSEZL's Application:

MSEZL in its application dated 30<sup>th</sup> November, 2016, has sought approval of the Commission for the revised ARR for FY18. The summary of the proposed revised ARR for FY18 is as follows:

**TABLE – 1**

#### Revised ARR for FY18 – MSEZL Proposal

Amount in Rs.Crores

Particulars	FY18
Energy at IF Point (MU)	85.33
Sales (MU)	84.60
Distribution Loss (MU)	0.73
Distribution Loss in %	0.86%
<b>Revenue</b>	
Revenue From Sale of Power	58.34
<b>Expenditure</b>	
Power Purchase Cost	47.87
Employee Expenses	0.40
R&M Expenses	0.71
A&G Expenses	0.32
<b>Total O&amp;M Expenses</b>	<b>1.43</b>
Depreciation	2.73
Interest & Financing Charges(net)	
Interest on Capital Loan	3.53
Interest on Working Capital	1.29
Interest on Consumers' Security Deposit	0.25
Return on Equity	2.92
Other Income	0.26
Less: 50% gap in Revenue of FY16	(2.42)
<b>Total Expenses</b>	<b>62.18</b>

The MSEZL has requested the Commission to approve the revised Annual Revenue Requirement of Rs.62.18 Crores for FY18. Considering the estimated

revenue of Rs. 58.34 Crores based on the existing retail supply tariff, MSEZL has projected revenue gap of Rs.1.42 Crores for FY18. However, as discussed in the previous Chapter of this Order, MSEZL has proposed carry forward gap of revenue of Rs.2.42 Crores of FY16. Thus, the total gap in revenue for FY18 is Rs.3.84 Crores. In order to bridge this gap in revenue, MSEZL, in its application has requested the Commission to revise the retail supply tariff for FY18.

### **Annual Performance Review for FY16:**

As discussed in the preceding chapter of this Order, the Commission has carried out the Annual Performance Review for FY16 based on the audited accounts furnished by MSEZ. Accordingly, a deficit of Rs.0.34 Crores of FY16 is required to be carried forward in to the ARR of FY18.

## **2. Determination of revised ARR for FY18:**

The analysis of the expenditure and revenue proposed by the MSEZL and decisions of the Commission on each item of the expenditure are discussed below:

### **i. Sales:**

The MSEZL in its application has estimated the sales of 84.60 MU for FY18. Since the MSEZL has projected the sales duly considering its present status and progress of facilities available within its premises, the Commission has considered the sales projections made by the MSEZL for FY18.

### **ii. Distribution Losses:**

MSEZL in its application has projected the distribution losses of 0.86% for FY18. The MSEZL has reported a negative loss in FY16, which has not been accepted by the Commission. The Commission, in its MYT Order dated 30<sup>th</sup> March, 2016 had fixed the distribution loss of 1.47% for FY18. Hence, for the present, the Commission decides to consider and refix the distribution losses at 0.86% as proposed by the MSEZL for FY18.

### iii. Power Purchase cost:

The MSEZL in its application has proposed the energy requirement of 85.33 MU for FY18 and the same is proposed to be procured from the MESCOM. The power purchase cost of Rs. 47.87 Crores has been computed by assuming a rate of Rs.5.61 per unit as approved by the Commission in its Order dated 30<sup>th</sup> March,2016.

The Commission in its Order dated 30<sup>th</sup> March, 2016 had approved power purchase cost at the rate of Rs.5.61 per unit. For computing the power purchase cost, the marginal cost of power purchase from long-term sources (excluding RE) and 5% from short term /medium term by MESCOM were considered. The Commission has adopted the same approach for projecting the power purchase cost for FY18. However, as short-term power purchase in FY18 is not envisaged, 5% is factored from Solar power and the remaining requirement is sourced on the basis of merit order for determining the power purchase cost as shown in the following table:

**TABLE - 2**  
**Cost of Power purchase for FY18**

Amount in Rs. Crores

Particulars	Energy in MU	Fixed cost	Variable cost	Total cost	Per unit Cost
5% Requirement of MESCOM	279.19				
BTPS-3	211.17	39.49	64.62	104.11	4.93
UPCL	54.76	9.19	17.30	26.49	4.90
Solar Power	13.96			9.26	6.63
Total PP cost				139.86	5.01
Transmission & SLDC Charges				15.20	0.54
Total PP & Transmission cost				155.06	5.55
Trading margin at 5 paise per unit				1.40	0.05
Total cost				156.46	5.60
<b>Energy at Interface point (Transmission loss at 3.37%)</b>					<b>5.80</b>

The above per unit rate of power purchase payable to the MESCOM includes a margin of 5 paise per unit besides charges payable to the KPTCL, PGCIL, SLDC

and POSOCO. Hence, the Commission hereby approves the power purchase rate of Rs. 5.80 per unit of energy delivered to MSEZL by MESCOM at the IF point, for FY18.

As per the quantum of sales and the distribution losses indicated by the MSEZL, and the power purchase rates computed above, the purchase cost for FY18 is as under:

**TABLE – 3**  
**Approved Sales and Power Purchase cost for FY18**

Year	Sales in MU	Distribution Losses in %	Energy at IF point in MU	PP rate at IF point Rs. per unit	Total Power Purchase cost in Rs. Crs
<b>FY18</b>	84.60	0.86%	85.33	5.80	49.49

**Thus, the Commission approves power purchase cost of Rs.49.49 Crores which is payable to MESCOM for FY18.**

**iv. Other items of Expenditure:**

In addition to the power purchase cost, the following are the other items of expenditure to be factored in the ARR for FY18:

**a) O & M Expenses:**

The MSEZL in its application has claimed O & M expenses of Rs.1.43 Crores by considering the weighted inflation index of 9% on the base year O&M expenses of FY17 and the efficiency factor of 0.5%. MSEZL has claimed this amount with breakup of employee cost, R&M expenses and A&G expenses as detailed below:

**TABLE – 4**  
**O & M Expenses – MSEZL Proposal**

Amount in Rs.Crores

Particulars	FY18
Employee Expenses	0.40
Repairs & Maintenances Expenses	0.71
General Administration Expenses	0.32
<b>Total</b>	<b>1.43</b>

The Commission in its Tariff Order dated 30<sup>th</sup> March, 2016 had approved O&M expenses of Rs.1.62 Crores for FY18. The Commission, as per the audited accounts of MSEZL has considered the actual O&M expenses of Rs.1.13 Crores for FY16 as the base year O&M expenses. This base year cost is escalated by weighted inflation index of 7.71% and efficiency factor of 0.50% to arrive at the allowable O & M expenses for the control period FY18.

As there is increase in the number of installations upto FY17 and projections made indicate 100% increase in FY18, the Commission is of the view that such an increase cannot be considered upfront for computation of consumer growth. However, the Commission would consider the actual number of installations while truing up the expenses for FY18.

Based on this approach, the approved O&M expenses for FY18 is as follows:

**TABLE - 5**  
**Approved O & M Expenses-FY18**

Particulars	Amount in Rs.Crores		
	FY16	FY17	FY18
No. of Installations	9	9	18
Consumer Growth rate-CAGR			25.99%
Weighted Inflation Index		7.71%	7.71%
Base Year O&M Cost	1.13		
<b>Approved O&amp;M expenses</b>		<b>1.21</b>	<b>1.30</b>

**Thus, the Commission decides to approve O & M expenses of Rs.1.30 Crores for FY18.**

**b) Depreciation:**

The MSEZL in its application has claimed depreciation of Rs.2.73 Crores based on the average projected gross fixed assets for FY18.

**Commission's analysis and decision:**

For the purpose of allowing the depreciation, the average of opening and closing balances of gross fixed assets has been considered and the allowable depreciation, at the rate as per the MYT Regulations, is worked out as follows:

**TABLE -6**  
**Approved Depreciation for FY18**

Amount in Rs. Crores

Particulars	FY18	
	Closing Balance of Asset as on 31.03.2017	Depreciation
Buildings	2.84	0.09
Civil	0.87	0.03
Plant & M/c	21.18	1.00
Line, Cable Network incl plant/Machinery	33.89	1.61
Furniture	0.02	0.00
Office Equipments	0.05	0.00
<b>Depreciation</b>	<b>58.85</b>	<b>2.73</b>

**Thus, the Commission decides to approve depreciation of Rs.2.73 Crores for FY18.**

**Interest on Capital loans:**

The MSEZL has considered the opening balance of capital loan of Rs.38.27 Crores and repayment of Rs. 0.43 Crores and has claimed interest on Capital loans of Rs.3.54 Crores at interest rate of 9.30% for FY18.

**Commission's analysis and decision:**

The Commission has considered the amount of loans, repayments and new loan, as furnished by the MSEZL in Format D-9 of its application. The Commission notes that the actual weighted average rate of interest during FY16 is 8.05%. The Commission has worked out the allowable interest on the average loans for FY18, duly considering the balance of capital loans, as per the audited

accounts for FY16 and the repayments proposed by MSEZL, as shown in the following Table:

**TABLE - 7**  
**Approved Interest on Loan for FY18**

Amount in Rs. Crores	
Particulars	FY18
Opening Balance of Capital Loan	20.00
Add new Loans	0
Less Repayments	2.72
Total loan at the end of the year	17.28
Average Loan	18.64
Interest Rate allowed in %	8.05%
<b>Interest on Capital Loans</b>	<b>1.50</b>

**Thus, the Commission decides to approve interest on capital loans of Rs.1.50 Crores for FY18.**

**c) Interest on Working Capital Loan:**

The MSEZL has claimed interest on Working Capital Loan at Rs.1.29 Crores for FY18. MSEZL has made this claim based on the working capital equivalent to sum of one month's O & M expenses, 1% of opening GFA and two month's revenue with an interest rate of 12%. The rate of interest is based on the bank rate declared by RBI at 9.3% / 9.65% plus 250 basis points.

**Commission's analysis and decisions:**

As per the norms specified under the MYT Regulations, the Commission has computed the interest on working capital, which consists of one month's O & M expenses, 1% of opening GFA and two month's revenue.

The present interest rates by commercial banks and financial institutions are charged mainly based on Marginal Cost of fund based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic situation, it is observed that there is a considerable reduction in the MCLR and also downward trend is evident in the

interest rates. Hence, in such a situation, the Commission is of the view that, the MSEZL can avail Capital loans at competitive interest rates which would be less than the proposed rates of 12%. The Commission notes that, the present SBI MCLR rate for capital loans with tenure of 3 years is 8.15%. Considering the present MCLR, the Commission decides to allow an interest rate of 11.00% for FY18 for Working Capital loans.

Accordingly, the approved interest on working capital loans is as follows:

**TABLE - 8**

**Approved Interest on Working Capital - FY18**

Amount in Rs. Crores	
Particulars	FY 18
One-twelfth of the amount of O&M Exp.	0.11
Opening GFA as per Audited Accounts	65.02
Stores, materials and supplies 1% of Opening balance of GFA	0.65
One-sixth of the Revenue	9.74
<b>Total Working Capital</b>	<b>10.50</b>
Rate of Interest (% p.a.)	11.00%
<b>Interest on Working Capital</b>	<b>1.15</b>

**Thus, the Commission decides to approve interest on Working Capital loans of Rs.1.15 Crores for FY18.**

**d) Interest on Consumers Security Deposits:**

The MSEZL has claimed the interest on consumers' security deposit of Rs. 0.25 Crores for FY18.

**Commission's analysis and decisions:**

In accordance with the KERC (Interest on Security Deposit) Regulations 2005, the interest rate on consumers' security deposit to be allowed is the bank rate prevailing on the 1<sup>st</sup> of April of the financial year for which interest is due. As per the Reserve Bank of India Notification dated 4<sup>th</sup> October, 2016, the applicable bank rate is 6.75%. The Commission has considered the same, for computation of interest on consumers' security deposits for FY18.



The Commission has considered the consumers' security deposits of Rs.0.56 Crores as per the audited accounts of FY16 for onward projection for FY18. As there is no change in consumers, the Commission has considered the same amount of consumers' security deposits for FY18 also and the interest on consumer's security deposits is worked out as follows:

**TABLE - 9****Approved Interest on Consumers' Security Deposits for FY18**

Amount in Rs. Crores	
Particulars	FY18
Opening Balance of Consumers' Security Deposits	0.56
Addition of deposits	0.00
Closing Balance of Consumers' Security Deposits	0.56
Average Balance of Consumers' Security Deposits	0.56
Rate of Interest	6.75%
<b>Approved Interest on Consumers' Security Deposits</b>	<b>0.04</b>

**Thus, the Commission decides to approve interest on consumers' security deposits of Rs.0.04 Crores for FY18.**

The abstract of approved interest and finance charges for FY18 are as follows:

**TABLE - 10****Approved Interest and finance charges for FY18**

Amount in Rs. Crores	
Particulars	FY18
Interest on Loan Capital	1.50
Interest on Working Capital	1.15
Interest on Consumers' Security Deposit	0.04
<b>Total Interest &amp; Finance Charges</b>	<b>2.69</b>

**e) Return on Equity (RoE):**

The MSEZL in its application has claimed Return on Equity of Rs. 2.92 Crores for FY18 based on normative equity of Rs.18.81 Crores by considering 30% of the

GFA of Rs.65.83 Crores and the negative balance cash resource available from share premium account of Rs.0.94 Crores.

**Commission's analysis and decision:**

The Commission notes that, as per the consolidated audited accounts of MSEZL for FY16, the closing balance share capital for the entire Company is Rs. 50 Crores and the accumulated surplus is Rs.23.95 Crores. The Commission having recognized the equity of the licensed activity in proportion to the opening GFA of the licensee as provided by the MSEZL in its application, the share capital for the licensed activity on the total equity is 6.5329%. Accordingly, in the same proportion, the equity for licensed activity is reckoned as Rs.5.10 Crores for FY16. Considering the accumulated reserves and surplus earned during FY17, allowable equity for FY18 is Rs.5.583 Crores.

The Commission, in accordance with the provisions of the MYT Regulations, has considered 15.5% of Return on Equity duly grossed up with the applicable Minimum Alternate Tax (MAT) of 21.342%. This works out to 19.706% per annum. The approved Return on Equity for FY18 is as follows:

**TABLE - 11**

**Approved Return on Equity for FY18**

Amount in Rs. Crores	
Particulars	FY18
Equity	3.270
Reserves and Surplus	2.313
Total equity	5.583
<b>Approved RoE with MAT</b>	<b>1.10</b>

**Thus, the Commission decides to approve RoE of Rs.1.10 Crores for FY18.**

**f) Other Income:**

MSEZL has estimated the other income of Rs. 0.26 Crores for FY18. The Commission notes that, MSEZL has reported other income of Rs. 0.47 Crores for FY16 which is mainly on account of credit of interest received from MESCOM to an extent of Rs.0.44 Crores. Hence, the Commission decides to consider the Other Income of Rs.0.26 Crores as proposed by MSEZL for FY18.

**3. Abstract of Revised Approved ARR for FY18:**

Based on the above analysis and decisions of the Commission, the approved revised ARR for FY18 is as follows:

**TABLE - 12**  
**Revised Approved ARR for FY18**

Amount in Rs.Crores

Particulars	FY18
Power Purchase Cost	49.49
O&M Expenses	1.30
Depreciation	2.73
Interest on Capital Loan	1.50
Interest on Working Capital	1.15
Interest on Consumers' Security Deposit	0.04
RoE	1.10
Less Other Income	0.26
Add 50% gap in revenue of FY16	0.34
<b>Net ARR</b>	<b>57.39</b>

**4. Average Cost of Supply:**

**TABLE – 13**  
**Average Cost of Supply**

Particulars	FY18
Approved ARR in Rs. Crores	57.39
Sales in MU	84.60
<b>Average cost of supply in Rs. per Unit</b>	<b>6.78</b>

### 5. Gap in Revenue for FY18:

As discussed above, the Commission decides to approve the revised Annual Revenue Requirement (ARR) of MSEZL for its operations in FY18 at Rs.57.39 Crores as against MSEZL's application proposing the revised ARR of Rs.61.99 Crores, which included a the revenue deficit of Rs.2.23 Crores for FY16. This approved revised ARR includes an amount of Rs.0.34 Crores, which is determined as the deficit in FY16 as discussed in Chapter-4. Based on the existing retail supply tariff, the total realization of revenue will be Rs. 58.42 Crores, which is Rs.1.03 Crores more than the projected revenue requirement for FY18.

The net ARR and the gap in revenue for FY18 are shown in the following table:

**TABLE – 14**  
**Revenue gap for FY18**

Particulars	FY18
Net ARR including carry forward gap of FY16 (in Rs. Crores)	57.39
Approved sales (in MU)	84.60
Average cost of supply (in Rs./unit)	6.78
Revenue at existing tariff (in Rs. Crores)	58.42
<b>Surplus revenue (in Rs. Crores)</b>	<b>1.03</b>

Based on the above approved ARR, the determination of revised retail supply tariff is detailed in the following paragraphs.

### 6. Retail Supply Tariff of MSEZL for FY18:

The MSEZL in its application has proposed an additional category of consumers of LT Industries and has proposed for approval of retail supply tariff as follows:

**TABLE – 15**

Category	Particulars	Rate
HT Industrial	Fixed Charges/KVA/month	180
	Energy Charges Rs/kWh	6.65
HT Construction	Fixed Charges/KVA	200
	Energy Charges Rs/kWh	9.15
LT Industrial	Fixed Charges/KVA/month	180
	Energy Charges Rs/kWh	6.65

**Commission's analysis and decision:**

The Commission, in order to ensure full recovery of the ARR, has approved the following retail supply tariff:

**Table-16**  
**Approved Retail Supply tariff for FY18:**

Category	Particulars	Rate (Rs.)
HT Industrial	Fixed Charges/KVA/month	200
	Energy Charges/kWh	6.34
HT Construction	Fixed Charges/KVA/month	230
	Energy Charges/kWh	9.00
LT Industrial- New Category	Fixed Charges/KVA/month	190
	Energy Charges/kWh	6.00

**Time of Day (TOD) Tariff :**

The following is the approved TOD tariff applicable to HT consumers :

Time of Day	Increase (+) / reduction (-) in energy charges over the normal tariff applicable
06.00 Hrs to 10.00 Hrs	(+) 100 paise per unit
10.00 Hrs to 18.00 Hrs	0
18.00 Hrs to 22.00 Hrs	(+) 100 paise per unit
22.00 Hrs to 06.00 Hrs next day	(-) 100 paise per unit

**General Terms and Conditions of Tariff:**

The relevant general terms and conditions of tariff for HT and LT consumers as approved in the Tariff Orders of ESCOMs issued from time to time is also applicable to consumers of MSEZL.

**7. Commission's Order**

- 1. In exercise of the powers conferred on the Commission under Sections 62, 64 and other provisions of the Electricity Act, 2003, the Commission hereby determines and notifies the retail supply tariff of MSEZL for FY18 as stated above.**
- 2. The above retail supply tariff shall come into effect for the electricity consumed from the first meter reading date falling on or after 1<sup>st</sup> of April, 2017, after due notification to the consumers of the MSEZL.**
- 3. This Order is signed dated and issued by the Karnataka Electricity Regulatory Commission, at Bengaluru this day, the 11<sup>th</sup> April, 2017.**

Sd/-

**M.K.Shankaralinge Gowda**  
Chairman

Sd/-

**H.D.Arunkumar**  
Member

Sd/-

**D.B.Manival Raju**  
Member