

CHAPTER – 2

ANNUAL REVENUE REQUIREMENT FOR THE CONTROL PERIOD FY20-22

Mangalore SEZ Limited's (MSEZL) Application:

2.1 Annual Revenue Requirement (ARR) for FY20-22:

MSEZL, in its application dated 29th November, 2018, has sought approval of the Commission for the ARR for FY20-22 and for determination of Retail Supply Tariff for FY20. The summary of the proposed revised ARR for FY20-22 is as follows:

TABLE – 2.1
ARR for FY20-22 – MSEZL Proposal

Amount in Rs. Crores

Particulars	FY20	FY21	FY22
Energy @ IF Point (MU)	51.13	56.86	60.36
Sales (MU)	50.54	56.17	59.63
Distribution Loss in %	1.15%	1.21%	1.21%
Revenue From Sale of Power	40.32	44.41	47.14
Expenditure:			
Power Purchase Cost	30.35	33.75	35.83
Employee Expenses	0.45	0.48	0.52
R&M Expenses	0.76	0.82	0.89
A&G Expenses	0.26	0.28	0.30
Depreciation	2.84	2.84	2.84
Interest on Capital Loan	3.40	3.37	3.32
Interest on Working Capital	0.21	0.91	0.97
Interest on Consumer Deposit	0.26	0.26	0.26
RoE	3.12	3.12	3.12
Less : Other Income	-0.26	-0.26	-0.26
Carry Forward deficit as per ARR for FY18	0.14	0.00	0.00
Total ARR	41.53	45.57	47.78

The MSEZL has proposed the ARR Rs.41.53 Crores, Rs.45.57 Crores and Rs. 47.78 Crores for the Control Period FY20-22. MSEZL while proposing the ARR for FY20, has carried forward the estimated revenue deficit of Rs.0.14 Crores of FY18 and has

requested to allow the same in the retail supply tariff for FY20. Considering the estimated revenue of Rs.40.32 Crores based on the existing retail supply tariff, the MSEZL has projected a revenue gap of Rs.1.21 Crores for FY20. MSEZL has projected the ARR for FY20-22 by considering the power purchase cost at Rs. 5.936 per unit, as approved by the Commission, in its Tariff Order dated 14.05.2018 for FY19 and has requested the Commission that, in the event of any change in the power purchase cost, the same has to be passed on to the consumers, through tariff increase for FY20.

Treatment of Revenue gap for FY18:

The MSEZL in its filing has proposed a revenue deficit of Rs. Rs.1.94 Crores as per APR for FY18. The MSEZL has requested the Commission that, for any change in the power purchase rate from the existing Rs.5.81 per unit for FY18, as approved by the Commission in its Tariff Order dated 8th May 2017, the difference in power purchase cost need to passed on to the consumers through tariff increase for FY20. The Commission, has computed the revenue gap for FY18 in accordance with the MYT Regulations, as discussed in the previous chapter and has decided to carry forward the gap of FY18 of Rs.1.82 Crores to the ARR of FY20.

2.2 Determination of ARR for FY20-22:

The analysis of the expenses and decisions of the Commission on each of the expenditure proposed by MSEZL for the control period FY20-22 are discussed below:

2.3 Sales:

MSEZL in its filing has submitted year-wise demand, sales projection and category-wise demand for the FY20-22 in the table given below:

TABLE – 2.2
Year wise demand and sales projections- MSEZL Submissions

Sl. No.	Year	No of Consumers	Demand in MVA	Energy in MU
1	FY 20	23	27.00	50.54
2	FY 21	23	29.00	56.17
3	FY 22	23	32.00	59.63

TABLE -2.3
Category wise demand and sales projections by MSEZL

Sl. No.	Type of consumer category	FY 20		FY 21		FY 22	
		MVA	MU	MVA	MU	MVA	MU
1	HT Industrial – 33 KV	21.50	45.92	23.50	52.10	27.49	55.56
2	HT Industrial – 11 KV	4.35	3.67	5.35	3.67	4.36	3.67
3	HT - Construction	1.00	0.55	-	-	-	-
4	LT Industrial	0.15	0.40	0.15	0.40	0.15	0.40
5	Total	27.00	50.54	29.00	56.17	32.00	59.63

MSEZL submitted that it has a combined contracted demand of 27 MVA and projected the sales for the control period based on the following parameters:

- i. Based on the consumption of existing consumers and anticipated sales due to addition of consumers in the future.
- ii. The connected load of existing consumers is 16.45 MVA and further power demand of 10.55 MVA is sanctioned, which would be operational in FY20.
- iii. For existing consumers, the actual energy sales made in FY 17 and provisional energy estimation of FY18 is considered for determining the projected energy sales for FY20 and for new consumers, it is based on the requirement furnished by the consumers.
- iv. Sales estimation for FY21 and FY22 have been made based on FY20 energy sales estimation.

The Commission in its preliminary observation, had observed that, MSEZL has estimated the revised sales for FY19 as 42.64 MU, against 44.69 MU approved by the Commission, which is less by 2.05 MU. The Commission directed MSEZL to analyze the reasons for such reduction in sales in FY19.

MSEZL, in its reply to the preliminary observation has submitted that for FY19 the sales are estimated, considering the actual sales upto October, 2018 at 25.38 MUs and projections for the balance period from November 2018 to March 2019 at 16.81 MU. MSEZL stated that the projection for 16.81 MUs is based on the average consumption pattern of the consumers for the first seven months of FY19. Further, a major consumer has synchronized their captive power plant to KPTCL grid and hence, during monsoon period due to lightning impact, they have reduced their energy consumption.

The Commission had further observed that MSEZL has stated that even though the number of installations has remained at 23 for all the years starting from FY20 to FY24, the demand in MVA has increased from 27 MVA to 37 MVA and sales have been increased from 50.54 MU to 65.47 MU. MSEZ was directed to explain the reasons for the same and also furnish the working details of sales estimates for each of the 23 consumers.

MSEZL has submitted that the basis of demand/sales projections for a five-year period i.e. from FY20-24 is made considering energy requirements from:

- a) The daily average energy consumption pattern for FY 17 and FY 18 is analyzed for understanding the energy requirement of the existing consumers. MSEZL has considered that the energy consumption at their current level to remain constant throughout the period.
- b) For estimating the energy requirement of new Consumers, MSEZL has considered the following:
 - i. Energy for undertaking/execution of their construction works;
 - ii. Energy required for their production/operation;MSEZL based on the inputs regarding likely completion of construction work and commencement of production/operation have projected the energy requirement of such consumers. These consumers are expected to increase their production activity gradually over the years. Hence, while estimating the energy requirement for the period FY 21 to FY 24, MSEZL have considered their future requirement and have

assumed a gradual increase in energy in a progressive manner. Thus, effectively the increase in contract demand from 27MVA to 37 MVA and in energy from 50.54 MUs to 65.47 MUs is expected to come from these new consumers.

The Commission on perusing the details notes that in FY21, the total MVA would be 28 MVA and not 29 MVA.

The Commission also noted that there are inconsistencies in the figures, as such the Commission directed MSEZL to reconcile the figures and furnish the correct data of sales and power purchase quantum. MSEZL has furnished the clarification in the matter.

Since, the MSEZL has projected the number of installations and sales duly considering its present status and anticipated progress of facilities available within its premises, the Commission has considered the sales projections made by the MSEZL for the control period and approves the sales quantum for the control period as indicated in the following table:

Year	FY20	FY21	FY22
Sales-MU	50.54	56.17	59.63

2.4 Demand Side Management:

The Commission in its preliminary observation, had directed MSEZL to furnish the annual DSM plan for FY19 & FY20, if any, indicating the various DSM programs taken up/proposed to be taken up. Further, the Commission also directed MSEZL to include the cost of such DSM programs if being incurred by MSEZL in its Capex program.

MSEZL in its reply to the preliminary observation, has submitted that as the area of operation of MSEZL is limited, the scope for implementing DSM is also limited. However, MSEZL has installed solar lamps, LED street lights in the entire SEZ area. Further, MSEZL has also extended TOD benefits to consumers to encourage

power consumption during non-peak hours. The Commission notes the reply submitted by the MSEZ.

2.5 Distribution Losses:

MSEZL in its application has projected the following distribution losses for the Control period FY20-22 as under:

TABLE-2.4
Voltage-wise distribution loss for FY20-22 - MSEZL Submissions

Particulars	In (%)		
	FY 20	FY 21	FY 22
33KV loss	0.83	0.90	0.90
11KV loss	0.30	0.30	0.30
LT loss	0.02	0.02	0.02
Total Loss	1.15	1.21	1.21

MSEZL has arrived at the distribution loss percentages for the control period based on the following:

- a) MSEZL has considered the addition of four new consumers expected to be connected to the grid with estimated contract demand of 10.55 MVA and energy requirement of 4.25 MU. These new consumers are connected to grid with 3RX630Sq.mm, 33KV UG cable of 4.6Kms length and 3CX240Sq.mm, 33KV UG cable of 2.5KMs length. Considering the base distribution loss, and the additional distribution network created and energy delivered to these new consumers, the distribution loss at 1.15% has been proposed for FY20.
- b) MSEZL has considered the addition of one more category for construction purposes, with the estimated contract demand of 1.25 MVA and energy requirement of 2.25 MU and would be connected to the grid via 3CX240Sq.mm, 33KV UG cable of 500Mtrs. With this, by considering the additional distribution loss at 0.05%, MSEZL has proposed the distribution loss at 1.21% for FY21.
- c) For FY22, MSEZL has projected the distribution loss at 1.21% with the same consumption pattern as of FY21.

The Commission notes that the input energy received by the MSEZL is at 33KV and the distribution network of the MSEZL includes 33KV, 11KV and LT network. Considering the increase in sales and number of installations to be added in the next three years, MSEZL has projected the higher distribution losses for FY21 and FY22 as compared to the projections for FY20. The Commission notes that the increased loads with increased area of distribution system requires usage of longer electrical network resulting in higher losses. As such, for the present, the Commission decides to consider the same distribution losses of 1.15% for FY20 and 1.21% for FY21 and FY22, as proposed by the MSEZL for FY20-22. However, MSEZL is required to furnish the computation of distribution losses for each year based on the actual metered data of input energy and sales, at the time of APR for assessment of correct distribution losses.

2.6 Capital Investment Plan:

MSEZL in its filing has submitted that they have completed the extension of distribution network for arranging power supply to all the consumers who have requested for power. Based on the present consumers' load growth and energy requirement, MSEZL has proposed to augment grid station capacity during FY22 and complete the work in FY23, as the existing 40 MVA transformer would be fully loaded by FY 22 and a new 20 MVA transformer may required to be provided.

As such the details of capex proposed by MESZL for FY20 -22 is as indicated in the following table:

TABLE -2.5
CAPEX proposed by MSEZL

Sl. No.	Description of work	Amount in Rs. Crores		
		Amount of capex		
		FY 20	FY 21	FY22
1	Augmentation of 110/33/11KV substation –GSS-03 by providing additional 20MVA,110/33KV power transformer and other connected equipment	0.00	0.00	1.25

The Commission notes that, MSEZL has not proposed any capex for FY20 and FY21 and proposed Rs.1.25 Crores for FY22. However, MSEZL, in its filing under Format-D17 and D15 has not indicated the capital expenditure and not added any new assets during FY22. Thus, the Commission decides to consider the capex of Rs.1.25 Crores as proposed by MSEZL for FY22.

2.7 Power Purchase cost:

MSEZL's Submission:

MSEZL in its filing has proposed the energy requirement at IF points of 51.13 MU, 56.86 MU and 60.36 MU for FY20, FY21 and FY22 respectively and requested the Commission to adopt the same methodology followed by the Commission in approval of the revised ARR for FY19. MSEZL has proposed the procurement of its required energy from the MESCOM. The MSEZL has proposed the power purchase cost of Rs.30.35 Crores, Rs.33.75 Crores and Rs.35.83 Crores by considering the power purchase rate of Rs.5.936 per unit for the control period FY20-22. MSEZL submitted that FAC charged by MESCOM from time to time has not been factored in while considering the power purchase rates. Further, MSEZL in its application has submitted that if there is any change in the power purchase per unit rate, the same needs to be passed on to the consumers in the retail supply tariff to be determined for FY20. The power purchase quantum and its cost proposed by MSEZL for the control period FY20-22 are as follows:

TABLE-2.6

Power Procurement Plan as submitted by MSEZL

Sl. No.	Particulars	FY 20	FY 21	FY 22
1	Energy demand (MVA)	27	29	32
2	Energy Sales (MUs)	50.54	56.17	59.63
3	Distribution loss (%)	1.15%	1.21%	1.21%
4	Energy Requirement (MUs)	51.13	56.86	60.36
5.	Power purchase cost-Rs. Crores	30.35	33.75	35.83

Commission's analysis and decision:

The Commission notes the power purchase quantum and its cost proposed by MSEZL for the control period for FY 20-22. The Commission, in its Tariff Order dated, 14th May 2018, has modified the methodology to determine the power purchase cost to the deemed licensees (SEZ) operating in the State, for the determination of ARR and retail supply tariff. The Commission decides to consider the same methodology adopted in Tariff Order dated 14th May, 2018 in computation of power purchase cost for the control period FY 20-22. Accordingly, for computing the power purchase cost, the Commission has considered the State's total purchase cost excluding the Hydro power as the basis to arrive at the average cost of power, to be delivered at the IF point.

The Commission notes that the power purchase cost in the State is increasing, year on year, and this is having a direct impact on the SEZ power purchase cost who are procuring from the ESCOMs/ distribution licensees. Thereby the retail supply tariff to the consumers of SEZ is increasing. With the present approach in computing the power purchase costs to the SEZ, the resultant retail supply tariff will be higher than the tariff determined for similarly placed consumers of ESCOMs. A higher tariff to the SEZ consumers will affect the production costs and thus may defeat the purpose of setting up industries within the SEZ distribution area.

Hence, with a view to keep the retail supply tariff to the SEZ consumers comparable with the tariff of the similarly placed consumers in the other ESCOMs, and to avoid extra financial burden on the consumers of SEZ area, the Commission decides to fix the grid support charges, trading margin and energy handling charges including the transmission charges etc., at Rs.0.75 per unit (instead of Re.1 earlier fixed), while determining the per unit power purchase cost to be collected by the MESCOM from MSEZ's for FY20-22.

Accordingly, the computation of power purchase cost for the control period is computed and shown in the following tables:

TABLE-2.7
Power Purchase Cost for FY20
(As per State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs./ Unit
Approved State total power Purchase and cost	70905.56	34095.44	
Less:			
KPC & Other Hydro	10548.38	1046.11	
State PP cost excluding Hydro	60357.18	33049.33	5.476
Add: Trading Margin , Energy handling and Grid support charges including the transmission charges			0.750
PP cost at Interface Point			6.226

TABLE-2.8
Power Purchase Cost for FY21
(As per State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs./ Unit
Approved State total power Purchase and cost	73971.94	37365.78	
Less:			
KPC & Other Hydro	11120.57	1145.07	
State PP cost excluding Hydro	62851.37	36220.71	5.763
Add: Trading Margin , Energy handling and Grid support charges including the transmission charges			0.750
PP cost at Interface Point			6.513

TABLE-2.9
Power Purchase Cost for FY22
(As per State approved PP cost excluding Hydro)

Particulars	Energy in MU	Cost Rs. Crores	Weighted Average PP cost Rs. / Unit
Approved State total power Purchase and cost	77192.34	39684.74	
Less:			
KPC & Other Hydro	10949.29	1188.06	
State PP cost excluding Hydro	66243.05	38496.68	5.811
Add: Trading Margin , Energy handling and Grid support charges including the transmission charges			0.750
PP cost at Interface Point			6.561

The above computed per unit rate of power purchase cost includes a margin on energy handling, transmission charges and grid support charges payable to MESCOM besides transmission charges payable to the KPTCL, PGIL, SLDC and POSOCO. **Hence, the Commission decides to approve the power purchase rate of Rs.6.226 per unit, Rs.6.513 per unit Rs.6.561 per unit of energy delivered to MSEZL by MESCOM at the IF point, for FY20, FY21 and FY22 respectively.**

As per the approved quantum of sales, the distribution losses and the power purchase at IF Point of MSEZL and the power purchase rate computed as above, the year wise purchase cost is worked out as indicated in the following Table:

TABLE – 2.10
Approved Sales and Power Purchase cost for FY20-22

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
FY20	50.54	1.15	51.13	6.226	31.83
FY21	56.17	1.21	56.86	6.513	37.03
FY22	59.63	1.21	60.36	6.561	39.60

Thus, the Commission approves power purchase cost of Rs. 31.83 Crores, Rs. 37.03 Crores and Rs.39.60 Crores for FY20, FY21 and FY22 respectively.

2.8 O & M Expenses:

MSEZL in its filing has claimed the O&M expenses of Rs.1.47 Crores Rs.1.58 Crores and Rs.1.71 Crores for FY20-22. MSEZL has considered the following aspects while determining the O&M expenses for FY20-22:

- a) The O&M expenses of Rs.1.35 Crores as per the audited accounts for FY18, as the base year for computing the O&M expenses for FY20.
- b) Compounded Annual Growth Rate (CAGR) of the number of installations as per the audited accounts upto FY 18 and as projected for the control period.
- c) The weighted inflation index (WII) at 8.1059%.

Based on the above, MSEZL has computed the O & M costs as under:

TABLE-2.11
O&M Expenses for FY20-22 – MSEZL Submission

Particulars	In Rs.Crores			
	FY 18	FY 20	FY 21	FY 22
No. of installations	19	23	23	23
Consumer Growth rate-CAGR	25.99%	-	-	-
Weighted inflation index	8.1059%	8.1059%	8.1059%	8.1059%
Base year O&M expenses	1.35	-	-	-
O&M expenses		1.47	1.58	1.71

Commission's analysis and decision:

The Commission, in accordance with the provisions of MYT Regulations and the methodology adopted while approving the O&M expenses for the control period for FY20 to FY22, carried out in respect of ESCOMs, proceeds with the determination of normative O&M expenses based on the 12 Year data of WPI and CPI.

Considering the Wholesale Price Index (WPI) as per the data available from the Ministry of Commerce & Industry, Government of India and Consumer Price Index (CPI) as per the data available from the Labour Bureau, Government of India and adopting the methodology followed by the CERC with CPI and WPI in a ratio of 80:20, the allowable annual escalation rate of inflation for the control period is computed as follows:

TABLE – 2.12
Computation of Inflation Index

Year	WPI	CPI	Composite Series	$Y_t/Y_1=R_t$	Ln R_t	Year (t-1)	Product [(t-1)* (Ln R_t)]
2006	70.2	122.9	112.36				
2007	73.6	130.8	119.36	1.06	0.06	1	0.06
2008	80.0	141.7	129.36	1.15	0.14	2	0.28
2009	81.9	157.1	142.06	1.26	0.23	3	0.70
2010	89.7	175.9	158.66	1.41	0.35	4	1.38

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2011	98.2	191.5	172.84	1.54	0.43	5	2.15
2012	105.7	209.3	188.58	1.68	0.52	6	3.11
2013	111.1	232.2	207.98	1.85	0.62	7	4.31
2014	114.8	246.9	220.48	1.96	0.67	8	5.39
2015	110.3	261.4	231.20	2.06	0.72	9	6.49
2016	110.3	274.3	241.50	2.15	0.77	10	7.65
2017	114.1	281.2	247.78	2.21	0.79	11	8.70
A= Sum of the product column							40.23
B= 6 Times of A							241.40
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.08
g(Exponential factor)= Exponential (D)-1							0.0828
e=Annual Escalation Rate (%)=g*100							8.2760

While determining the normative O & M expenses for the control period, the Commission has considered the following aspects:

- The actual O & M expenses of Rs.1.35 Crores as per the audited accounts for FY18 as the base for arriving at the base year O&M expenses for FY19.
- The three year compounded annual growth rate (CAGR) of the number of installations considering the actual number of installations as per the audited accounts up to FY18 and as projected by the Commission for the control period.
- The weighted inflation index (WII) at 8.276% as computed above.
- Efficiency factor at 0.5% as considered in the earlier control period.

Based on the above said parameters, the Commission has computed the O&M expenses for the control period in the following table:

TABLE – 2.13
Approved O & M Expenses-FY20-22

Particulars	Amount in Rs.Crores			
	FY19	FY20	FY21	FY22
No. of Installations	19	23	23	23
3 year CAGR of Consumers	28.28%	10.02%	6.58%	6.58%
Inflation		8.2760%	8.2760%	8.2760%
Base Year O&M Cost (As per the actuals of FY18 and estimated for FY19)	1.84			
O&M Index= O&M (t-1)*(1+WII-X)		2.16	2.47	2.83
O&M filed and claimed by MSEZ		1.47	1.58	1.71
Allowable O&M expenses		1.47	1.58	1.71

The Commission while approving the ARR as per APR for FY18, as per the provisions of MYT regulations, has considered the O&M expenses as controllable expenses. The Commission as per this provisions and by considering the submission of MSEZL has decided to allow the O&M expenses to the level of actual O&M expenses, though the normative allowable O&M expenses computed on the above norms is on the higher side. The reasons for the higher allowable normative O&M expenses are mainly on account of the effect of the higher percentage of consumer growth rate for FY18 and FY19. The Commission, with a view to soften the tariff burden to the limited number of consumers with in the MSEZL area and also by considering the claims made by MSEZL, decides to limit the allowable O&M expenses to the level as claimed by the MSEZL.

Thus the Commission decides to approves the O&M expenses of Rs.1.47 Crores Rs.1.58 Crores and Rs.1.71 Crores respectively for FY20-22.

2.9 Depreciation:

MSEZL in its filing has claimed Rs.2.84 Crores as depreciation for each year of the control period FY20-22. MSEZL has computed the depreciation as per the notified rates on the 90% average value of gross assets at the beginning and closing period of the financial year. The Commission notes that MSEZL has not envisaged major additional capex works upto FY22. MSEZL in it filing has computed the amount of

depreciation for FY20 and considered the same amount of depreciation for the remaining period of the control period FY21 and FY22 as indicated in the following Table:

TABLE – 2.14
Depreciation for FY20 – MSEZL Submission

Amount in Rs. Crores						
Sl. No.	Particulars	GFA as at 31.03.2019	GFA as at 31.03.2020	Average GFA –	Rate (%)	Depreciation
1	Building	6.17	6.17	6.17	3.34%	0.09
2	Civil -Roads	0.87	0.87	0.87	3.34%	0.03
3	Substation	21.27	21.27	21.27	5.28%	1.01
4	UG Cables	35.89	35.89	35.89	5.28%	1.71
Total depreciation						2.84

Commission's analysis and decision:

The Commission notes the opening and closing balance of GFA and the amount of depreciation charged as per the bifurcated audited accounts of MSEZL's license activity for FY18 and the data as furnished under Format D-8 and D-15 for FY20-22. The Commission further notes that, MSEZL has not proposed any addition of assets during FY20-22 and assumed that the GFA balance as on 31.03.2019 remain constant throughout the control period and claimed the same amount of depreciation for FY20-22.

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the allowable depreciation has been determined by the Commission duly considering the data of assets as per MSEZL's audited accounts for FY18 and the value of assets as projected under D-8 and D-15 format for FY19-22 and computed the depreciation amount as indicated in the following Table:

TABLE – 2.15
Approved Depreciation for FY20-22

Particulars	Opening balance of GFA as on 01.04.2019	Amount in Rs. Crores					
		FY20		FY21		FY22	
		Closing Balance of Asset as on 31.03.2020	Depreciation	Closing Balance of Asset as on 31.03.2021	Depreciation.	Closing Balance of Asset as on 31.03.2019	Depreciation
Buildings	2.84	2.84	0.09	2.84	0.09	2.84	0.09
Civil works	0.87	0.87	0.03	0.87	0.03	0.87	0.03
Plant & Machinery	21.29	21.29	1.02	21.29	1.02	21.29	1.02
Line, Cable Network	35.85	35.85	1.70	35.85	1.70	35.85	1.70
Furniture	0.02	0.02	0.00	0.02	0.00	0.02	0.00
Office Equipment	0.05	0.05	0.00	0.05	0.00	0.05	0.00
Total	60.94	60.94	2.84	60.94	2.84	60.94	2.84

Thus, the Commission decides to approve the depreciation amount of Rs.2.84 Crores, for each year of the control period FY20-22.

2.10 Interest on loans:

MSEZ, in its filing has claimed under format D-9, Rs.3.40 Crores, Rs.3.37 Crores and Rs.3.32 Crores respectively towards interest on capital loan for FY 20-22. MSEZL has not proposed new borrowings for FY 20-22. MSEZL has submitted that term loan outstanding at the beginning of FY20 is Rs.23.87 Crores. MSEZL, as per the audited accounts has availed the capital loan from the SBI at the interest rate of 9% per

annum and the same rate of interest has been considered on the projected loan balances for FY20-22.

The total amount of interest on capital loan claimed by MSEZL also includes interest on normative loan for the excess of equity amount over 30% of GFA, as per the MYT Regulations for Rs.1.25 Crores, Rs.1.23 Crores and Rs.1.21 Crores respectively for FY 20-22.

MSEZL in its filing has submitted that it has considered current lending floating rate at 9% p.a. for FY20. Further, MSEZL has considered a 10 to 25 basis point upward

movement in interest for FY 21 and FY 22. The interest on loan claimed by the MSEZL are as follows:

TABLE – 2.16
Interest on Loan Capital for FY 20-22
MSEZLs' Submission.

Sl. No.	Particulars	Amount In Rs. Crores		
		FY 20	FY 21	FY 22
1	Opening balance	23.87	23.87	23.16
2	Add: New loans	0.00	0.00	0.00
3	Less: Repayments	-0.00	-0.71	-1.00
4	Total loan at the end of the year	23.87	23.16	22.16
5	Average loan	23.87	23.52	22.66
6	Floating rate of interest %	9.00%	9.10%	9.25%
7	Interest on capital loan claimed	2.15	2.14	2.11

TABLE – 2.17
Normative Interest for FY 20-22
MSEZL's Submission

Sl. No.	Particulars	Amount In Rs. Crores		
		FY 20	FY 21	FY 22
1	Normative debt Opening balance	13.74	13.74	13.33
2	Add: Normative portion New loans	0.00	0.00	0.00
3	Less: Normative portion Repayments	0.00	0.41	0.57
4	Total Normative loan at the end of the year	13.74	13.33	12.76
5	Average Normative loan at the end of the year	13.74	13.54	13.05
6	Interest rate in %	9.01%	9.10%	9.25%
7	Interest eligible for allowance on normative loan	1.26	1.23	1.21

Commission's analysis and decision:

The Commission notes that MSEZL has not proposed any new borrowings of capital loan during the Control period FY20-22. However, it has not considered any repayment during FY20 but has considered repayment of loan to an extent of Rs.0.71 Crores for FY21 and Rs. 1 crore for FY22. The Commission also takes note of the total capital loan balances of MSEZL as a whole and of its licensed activity, as per the audited accounts. The Commission has reckoned Rs.1 Crore as repayment of

capital loans for each year of the Control period FY20-22. Further, the Commission notes that the weighted average rate of interest during FY18 and FY19 is 9%. This rate of interest is considered for computation of interest on capital loans for FY20-22.

The Commission has worked out the allowable interest on the capital loans for each year of the control period as shown in the following Table:

TABLE – 2.18
Approved Interest on Loan for FY20-22

Particulars	Amount in Rs. Crores		
	FY20	FY21	FY22
Long term secured & unsecured loans	23.87	22.87	21.87
Add new Loans	0.00	0.00	0.00
Less: Repayments	1.00	1.00	1.00
Total loan at the end of the year	22.87	21.87	20.87
Average Loan	23.37	22.37	21.37
Interest Rate allowed in %	9.00%	9.00%	9.00%
Allowable Interest on loan	2.10	2.01	1.92

In addition, the Commission as per the provisions of MYT Regulations, has allowed the interest on normative loan basis on the excess of equity over 30% of Gross Fixed Assets at Rs.1.106 for each year of the control period FY20-22 as under:

TABLE – 2.19
Allowable Normative Interest on excess equity for FY20-22

Particulars	Rs.in Crores		
	FY20	FY21	FY22
Opening balance of GFA	67.11	67.11	67.11
30% of GFA(Eligible for allowance of RoE	20.132	20.132	20.132
Opening balance of Equity	32.42	32.42	32.420
Equity in excess of 30% of GFA (3-2)	12.288	12.288	12.288
Allowable interest in %	9.00%	9.00%	9.00%
Allowable normative interest	1.106	1.106	1.106

Thus, the Commission decides to approve the total interest on capital loans inclusive of normative interest of Rs.3.206 Crores, Rs.3.119 Crores and Rs.3.029 Crores for FY20, FY21 and FY22 respectively.

2.11 Interest on Working Capital Loan:

The MSEZL in its filing has claimed Rs.0.21 Crores towards the interest on working capital by restricting it to 25% of the eligible normative working capital amount for FY20 and claimed the normative interest on working capital of Rs.0.91 Crores and Rs. 0.97 Crore for FY21 and FY22. Subsequently the MSEZL, while taking note of the proposed huge amount of revenue gap for FY20, has decided to absorb Rs.0.21 Crores of interest on working capital claimed in its filing for FY20.

MSEZL has considered SBI, MCLR effective as on 01st October, 2018 at 8.5% plus 250 basis points for determining interest on working capital rate of 11% p.a. and work out the interest on working capital for FY 20-22. As the interest rate movement is subject to various economic factors, MSEZL has retained the working capital interest rate of FY 20 i.e.11% for calculating the interest on working capital for FY 21 and FY 22.

The computation of interest on working capital by MSEZL for the MYT period FY 20, FY 21 and FY 22 is as under:

TABLE – 2.20
Interest on Working Capital as proposed by MSEZL for FY20-22

Particulars	Amount in Rs. Crores		
	FY 20	FY 21	FY 22
O&M expenses for one month	0.12	0.13	0.14
Spares at 1% on GFA at the beginning of the year	0.67	0.67	0.67
Receivables equivalent to 2 months avg. billing	6.72	7.40	7.86
Total working capital	7.51	8.20	8.67
Rate of interest (% p.a.)	11%	11%	11%
Interest on Working capital	0.82	0.91	0.96
Interest as working capital Claimed by MSEZL	0.21	0.00	0.00
Net Interest on working capital claimed	0.00	0.91	0.96

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, spares at 1% of opening GFA and two month's revenue receivables. The approved interest on working capital loans is as follows:

TABLE – 2.21
Approved Interest on Working Capital – FY20-22

Amount in Rs. Crores			
Particulars	FY 20	FY 21	FY 22
One-twelfth of the annual amount of O&M Expenses	0.12	0.13	0.14
Opening GFA as per Audited Accounts	67.11	67.11	67.11
Stores, materials and supplies 1% of Opening balance of GFA	0.67	0.67	0.67
One-sixth of the Revenue	6.83	8.286	8.797
Total Working Capital	7.62	9.086	9.67
Rate of Interest (% p.a.)	11%	11%	11%
Interest on Working Capital	0.84	1.00	1.06

The Commission has taken note of the MSEZLs letter dated 12th April, 2019 where it is submitted that, by considering the overall cost stack-up and impact on the financial, they are withdrawing the claims on interest on working capital of Rs.0.21 Crores claimed in the proposed ARR for FY20. Thus, the Commission decides not to consider the interest on Working Capital loans for FY20. Further, the Commission decides to allow the normative interest on working capital of Rs.1.00 Crores and Rs.1.06 Crores for FY21 and FY22 respectively.

2.12 Interest on Consumer Security Deposits:

MSEZL in its filing has claimed Rs.0.26 Crores towards interest on Consumer Security Deposits for each year of the control period FY20-22. MSEZL submitted that it has considered RBI bank rate 6.75% per annum prevailing on 12th October, 2018 for computation of interest on consumer security deposits for the control period. The

interest on consumer security deposits worked out by MSEZL for FY20-22 is indicated in the following table:

TABLE – 2.22
Interest on Consumer Security Deposit
for FY20-22 – MSEZL Submission

Particulars	Rs. Crores		
	FY 20	FY 21	FY 22
Average balance of consumers security deposits	3.81	3.81	3.81
Rate of interest	6.75%	6.75%	6.75%
Interest on Consumers Security Deposit	0.26	0.26	0.26

Commission's analysis and decisions:

In accordance with the KERC (Interest on Security Deposit) Regulations, 2005, the interest rate on consumer security deposit to be allowed is the bank rate prevailing on the 1st of April of the financial year for which interest is due. As per the Reserve Bank of India notification dated 2nd February, 2019, the bank rate is 6.50%. The Commission has considered the same for computation of interest on consumer security deposits for 20-22.

The Commission has considered the average consumer security deposits amount as proposed by the MSEZL and approved the interest on consumer security deposits for FY20-22 as under:

TABLE – 2.23
Approved Interest on Consumer Security Deposits for FY20-22

Particulars	Amount in Rs. Crores		
	FY20	FY21	FY22
Opening Balance of Consumer Deposits as per Accounts	3.81	3.81	3.81
Closing Balance of Consumer Deposits as per Accounts	3.81	3.81	3.81
Rate of Interest Allowed	6.50%	6.50%	6.50%
Allowable Interest on Consumer Deposit	0.25	0.25	0.25

Thus, the Commission decides to allow the interest on Consumer Security Deposits of Rs.0.25 Crores for each year of the control period for FY20-22.

2.13 Return on Equity (RoE):

MSEZL in its filing has claimed the return on equity (RoE) of Rs.3.12 Crores, for each year of the control period FY 20-22.

MSEZL has submitted that, the equity base for the purpose of computation RoE is restricted to 30% of the GFA and computed the RoE for the MYT control period FY 20, FY 21 and FY 22 as under:

TABLE – 2.24
ROE as proposed by MSEZL for FY20-22

Particulars	Amount in Rs. Crores		
	FY 20	FY 21	FY 22
The actual Equity share capital	35.550	35.550	35.550
Gross fixed assets	67.120	67.120	67.120
Allowable equity to allow RoE at 30% of GFA	20.136	20.136	20.136
RoE at 15.5%	3.120	3.120	3.120

Commission's analysis and decision:

The Commission, in accordance with the provisions of the MYT Regulations, has considered 15.5% of Return on Equity. As per the submission made by MSEZL, income Tax / Mat is not considered as the Company is under tax holiday period under section 80-1AB.

The Commission notes that, as per the bifurcated audited accounts of MSEZL's license activity for FY18, the closing balance of share capital is Rs. 35.55 Crores, and the accumulated deficit under reserve and surplus account is Rs.3.13 Crores. The Commission having recognized the net equity of Rs.32.42 Crores as at the end of March,2018 has decided to reckon the same amount as the opening balance of net equity for computation of RoE for FY20-22. However, the Commission, as per the provisions of MYT Regulations also has considered 30% of the total value of opening balance of the proposed Gross Fixed Assets (GFA), as the maximum allowable equity in allowance of the RoE for the control period FY20-22. Thus, the

Commission decides to approve the allowable RoE for the control period FY20-22 as detailed in the following table:

TABLE – 2.25
Approved Return on Equity for FY20-22

Particulars	Amount in Rs. Crores		
	FY20	FY21	FY22
Opening balance of Share Capital	35.550	35.550	35.550
Opening balance of Accumulated deficit	-3.130	-3.130	-3.130
Net Equity at the beginning of the year	32.420	32.420	32.420
Eligible Equity to allow RoE @ 30% of Opening balance of GFA	20.133	20.133	20.133
Allowable RoE by considering 30% of GFA at 15.5%	3.121	3.121	3.121
Approved RoE at 15.5% by the Commission	3.12	3.12	3.12

Thus, the Commission decides to approve RoE of Rs.3.12 Crores, for each of the year of the Control period FY20-22.

2.14 Other Income:

MSEZL has claimed the Other Income of Rs.0.26 Crores for each year of the Control Period FY20-22. The Commission, by considering the amount of other income actually earned during the previous years has decides to approve the Other Income of Rs.0.40 Crores for each year of the control period FY20-22.

2.15 Abstract of Approved ARR for FY20-22

Based on the above analysis and decision of the Commission, the net approved ARR for FY20 to FY22 is as follows:

TABLE – 2.26
Approved ARR for FY20-22

Particulars	Rs. Crores		
	FY20	FY21	FY22
Power Purchase Cost	31.83	37.03	39.60
O&M Expenses	1.47	1.58	1.71
Depreciation	2.84	2.84	2.84
Interest on Capital Loan	3.21	3.12	3.03

Particulars	FY20	FY21	FY22
Interest on Working Capital	0.00	1.00	1.06
Interest on Consumer Security Deposit	0.25	0.25	0.25
RoE	3.12	3.12	3.12
Less: Other Income	-0.40	-0.40	-0.40
Deficit of FY18 carried forward	2.42	0.00	0.00
Net ARR	44.74	48.54	51.21

2.16 Average Cost of Supply:

TABLE – 2.27
Average Cost of Supply

Year	Approved Net ARR Rs. Crores	Sales(MU)	Average Cost of Supply Rs. per unit
FY20	44.74	50.54	8.852
FY21	48.54	56.17	8.642
FY22	51.21	59.63	8.587

2.17 Revenue:

The MSEZL has indicated revenue of Rs.40.32 Crores from the sale of energy of 50.54 MU for FY20, at the existing retail supply tariff approved by the Commission. The Commission has considered the revenue at Rs.40.989 Crores at existing tariff for the approved sale of 50.54 MU for FY20.

2.18 Gap in Revenue

As discussed above, the Commission by considering the carry forward net deficit of Rs.2.42 Crores, as per the APR for FY18, has decided to approve the ARR of MSEZL for Rs.44.74 Crores, Rs.48.54 Crores and Rs.51.21 Crores for FY20-22 respectively, as against the MSEZL proposal of ARR of Rs.41.53 Crores, Rs.45.57 Crores and Rs.47.78 Crores respectively for FY20- 22.

Based on the existing retail supply tariff, the total revenue realization from sale of power will be Rs.40.99 Crores, resulting in a revenue deficit of Rs.3.75 Crores as against the approved ARR of Rs.44.74 Crores for FY20.

The MSEZL in its subsequent letter has submitted that, in order to bridge the revenue gap for FY20, the industrial tariff applicable to MESCOM area of consumer may be applied to MSEZL consumers. For any short fall in recovery of net gap amount even after considering revenue from sale of power at the approved revised retail supply tariff, MSEZ will review and take appropriate decision based the actual deficit as to its absorption or carry forward of the net results, at the time of submitting the revised ARR as per APR for FY20.

The Commission, taking note of the above submissions of MSEZ, has worked out the additional realizable revenue, as under, based on the revised tariff, and the deferred revenue which is not realizable, in this tariff revision exercise:

TABLE:2.28
ARR for the control period FY 20-22 and the revenue gap of FY 20

SI No	Particulars	FY 20	FY 21	FY 22
1	Approved ARR in Rs. Crores	44.74	48.54	51.21
2	Approved sales in MU	50.54	56.17	59.63
3	Average cost of Supply in Rs. / Unit	8.852	8.642	8.587
4	Revenue at existing tariff in Rs. Crores.	40.99	-	-
5	Gap in revenue in Rs. Crores	3.75	-	-
6	Additional revenue realised by revision of tariff	1.82	-	-
7	Deferred revenue	1.93	-	-

As agreed to by the MSEZ, the Commission, based on the above computations, recognizes an amount of Rs.1.93 Crores as unmet revenue for FY20 and treat the same as deferred revenue, to be recovered or absorbed by the MSEZ, without any carrying costs, based on the APR for FY20.

On the basis of above discussions, the Commission has approved the retail supply tariff for FY20 as follows:

2.19 Retail Supply Tariff of MSEZL for FY20:

The Approved retail supply tariff as follows:

TABLE – 2.29

Approved Retail Supply Tariff of MSEZL for FY20

Category	Particulars	Rate
HT Industrial	Demand Charges Rs./KVA/month	210.00
	Energy Charges Rs./kWh	7.15
HT Construction / Temporary	Demand Charges Rs./KVA/ month	260.00
	Energy Charges Rs./kWh	10.60
LT Industrial	Fixed Charges Rs./ KW/ Month	200.00
	Energy Charges Rs./kWh	6.65
LT Construction \ temporary	Fixed Charges Rs./ KW/ Month	240.00
	Energy Charges Rs. / kWh	10.60

2.20 Wheeling Charges and Cross Subsidy Surcharge:

The Commission had suggested the MSEZL to consider working out the wheeling charges and CSS considering its own costs.

Regarding the Wheeling charge and CSS, for the Control Period FY 20 to FY 22, MSEZL has requested the Commission to adopt similar procedure as adopted in the previous Order.

The Commission, while noting the reply furnished, decides that the wheeling charges as determined for MESCOM shall be applicable to MSEZL as well.

As regards the CSS, the Commission has determined a common cross subsidy surcharge for all the ESCOMs and therefore, the same shall be applicable to MSEZL.

The cross subsidy surcharge determined shall be applicable to all open access/wheeling transactions in the area coming under MSEZL. However, the above CSS shall not be applicable to captive generating plant for carrying electricity to the destination of his own use and for those renewable energy

generators who have been exempted from CSS by the specific orders of the Commission.

The Commission directs the Licensees to account the transactions under open access separately. Further, the Commission directs the Licensees to carry forward the amount realized under Open Access/wheeling to the next ERC, as it is an additional income to the Licensees.

2.21 Additional Surcharge:

As regards the additional surcharge, the Commission has determined a common additional surcharge for all the ESCOMs and therefore, the same shall be applicable to MSEZL also.

2.22 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 APR for FY18, ARR for FY20-22 and notifies the Retail Supply Tariff of MSEZL for FY20 as per Table 2.29 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 1st of April, 2019, 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 30th of May, 2019.**

Sd/-
(Shambhu Dayal Meena)
Chairman

Sd/-
(H. M. Manjunatha)
Member

Sd/-
(M.D. Ravi)
Member