

CHAPTER-6

AGGREGATE ANNUAL REVENUE REQUIREMENT

6.1 POWER PURCHASE COST:

In the Chapter “Energy Sales Projections” MESCOM has elaborated the projections made in respect of the energy sales for the years FY-20 and FY-21. Further, the energy requirement at generation point has also been arrived considering the projected distribution loss and transmission loss for the respective years.

In this Chapter, the energy requirement projected for the years FY-20 and FY-21 has been considered for estimations of power purchase cost to arrive at the aggregate annual revenue requirement for the control period.

a. Cost of power at generation point:

In Annexure-1 (i) of the Tariff Order 2019, Hon’ble Commission has indicated the ‘ESCOMs Total Approved Power Purchase Cost’ for FY-20. In the Government Order No.EN 84 PSR 2019 dated 05-03-2019, GOK has allocated the source wise energy availability from various sources among the ESCOMs for the year 2019-20. MESCOM has applied the % allocation of this GOK order to the source wise availability and source wise cost indicated in the Annexure-1(i) of the Tariff Order 2019 for estimating MESCOMs power purchase cost for FY-20.

For FY-21, as per PCKL statement source wise energy availability and power purchase cost has been considered.

Source wise details are made available in Format D-1 of the filing.

Rs. in Cr.

Year	Approved	Actuals	Revised
Fy-17 (Actuals)	2,291.75(*)	2,291.75	-
Fy-18 (Actuals)	2,288.10(*)	2,288.10	-
Fy-19 (Actuals)	1,640.56	1,994.99	-
Fy-20 (Projection)	2,347.11	-	2,390.46
Fy-21 (Projection)	2,506.71	-	2,939.81

(*) Approved in APR.

b. KPTCL Transmission Charges:

In the KPTCL Tariff Order 2019, Hon'ble Commission has approved the transmission charges for MESCOM for FY-20 and FY-21 as Rs.259.00 Cr and Rs.271.06 Cr, respectively. MESCOM has considered the same in present filing.

Transmission charges for FY-20 & FY-21 and transmission charges incurred by MESCOM in previous years are indicated in the below table;

Rs. in Cr.			
Year	Approved	Actuals	Revised
Fy-17 (Actuals)	248.38(*)	248.38	-
Fy-18 (Actuals)	218.04(*)	218.04	-
Fy-19 (Actuals)	224.37	226.15	-
Fy-20 (Projection)	259.00	-	259.00
Fy-21 (Projection)	271.06	-	271.06

(*) Approved in APR.

- a. SLDC Charges: SLDC charges of Rs.1.90 Cr incurred by MESCOM in FY-19 has been considered for the years FY-20 and FY-21 also.

6.2 Operation and Maintenance (O&M) Costs:

The Operation and Maintenance (O&M) costs includes employee related costs, repairs & maintenance costs and administrative & general costs.

In the Tariff Order-2019, Hon'ble Commission has approved the O&M charges for the control period FY-20 to FY-22 considering the actuals of FY-18. However, as accounts of FY-19 are finalized, it is required to consider FY-19 as base year for the control period FY-20 to FY-22.

Accordingly, the O&M Charges have been revised for FY-20 and FY-21 in line with the norms adopted by the Hon'ble Commission in Tariff Order-2019, but with the following rates of inflation, growth index and base year.

- ✓ Actual O&M Expenses in the year FY-19 as the base.
- ✓ Consumer growth index of 3.31% (3 year CAGR).
- ✓ Weighted average inflation index of 8.26%
- ✓ Efficiency factor of 1%.

Weighted average inflation index of 8.26% is computed as follows:

Year	WPI	CPI	Comp. Series	Yt/Y1 =Rt	Ln Rt	Year (t-1)	Product [(t-1)*(LnRt)]
2007	73.60	130.80	119.36				
2008	80.00	141.70	129.36	1.08	0.08	1.00	0.08
2009	81.90	157.10	142.06	1.19	0.17	2.00	0.35
2010	89.70	175.90	158.66	1.33	0.28	3.00	0.85
2011	98.20	191.50	172.84	1.45	0.37	4.00	1.48
2012	105.70	209.30	188.58	1.58	0.46	5.00	2.29
2013	111.10	232.20	207.98	1.74	0.56	6.00	3.33
2014	114.80	246.90	220.48	1.85	0.61	7.00	4.30
2015	110.30	261.40	231.18	1.94	0.66	8.00	5.29
2016	110.30	274.30	241.50	2.02	0.70	9.00	6.34
2017	114.10	281.20	247.78	2.08	0.73	10.00	7.30
2018	118.90	294.80	259.62	2.18	0.78	11.00	8.55
A=Sum of the product column							40.16
B=6 times of A							240.96
C=(n-1)*n*(2n-1)							3036
D=B/C							0.079369
Annual Escalation rate (exponential of D)							8.26%

On the above explicated norms / parameters, MESCOM has estimated the O&M Expenses for FY-20 & FY-21.

6.2.1 Employee Related Costs:

Actual employees' related expenditure during FY-19 is Rs.392.40 Cr. This includes Pension & Gratuity contribution @ 42.53% & 6.08%, respectively as per KPTCL P&G Trust Order No. ಕೆಇಪಿಜಿಟಿ / ಕೆಸಿಬಿ123 / ಪಿ7 / 2018-19 / ಸಿವೈಎಸ್-07 /Dt.22-11-2018. However, the rates of Pension & Gratuity contribution has been revised to 57.30% and 6.08%, respectively, in the KPTCL P&G Trust Order No. ಕೆಇಪಿಜಿಟಿ / ಕೆಸಿಬಿ123 / ಪಿ7 / 2018-19 / ಸಿವೈಎಸ್-13 /Dt.30-10-2019 (copy enclosed as Annexure-4). Effect given is from 01-04-2017. As such, cost implication is for two years i.e., FY-18 and FY-19.

In view of the above, MESCOM has added the additional Pension contribution @ 14.77% to the actual expenditure incurred in FY-19 and considered the same as base data for projecting the employee costs for the years FY-20 and FY-21, as indicated below;

(Rs.in Cr)

Actual Employee cost incurred in FY-19	392.40
Difference of P&G Trust contribution @ 14.77% (57.30% - 42.53%) [Basic + DP + DA = Rs.108.81 Cr)	16.07
Base data for projecting the employee cost for the years FY-20 and FY-21	408.47

Since the effect of revised pension contribution is from 01-04-2017, the arrears liability of Rs.16.07 Cr pertaining to the year FY-18 is added separately.

Further, MESCOM has initiated the process for recruitment the 667 nos. of JLM, 15 nos. of AEE(E), 10 nos. of AE(E), 2 nos. of JE(Civil) and 6 nos. of JPA. The process is nearing completion and it is expected that by March-2020 the new employees will join the Company. As such, MESCOM anticipated the additional employee cost of Rs.13.19 Cr, as indicated below;

Sl. No.	Designation	No. of Employees	Average Expenditure per Annum (Rs. In Cr.)
1.	Asst. Exe. Engineer (Ele.)	15	2.18
2.	Asst. Engineer (Ele.)	10	1.22
3.	Junior Engineer (Civil)	2	0.17
4.	Jr. Personal Assistant	6	0.42
5.	Junior Power men	667	8.00
	TOTAL:	700	11.99
	Pension Contribution @ 10%		1.20
	TOTAL:		13.19

As such, the Hon'ble Commission is requested to allow the employee cost as estimated below;

Rs. in Cr.

Particulars	FY-19	FY-20	FY-21
Actual Expenses in FY-19	408.47	-	-
Consumer Growth Index	-	3.31%	3.31%
Weighted Inflation Index	-	8.26%	8.26%
Efficiency Factor	-	1.00%	1.00%
Net Growth Rate	-	10.57%	10.57%
Expenses projected for the year	-	451.65	499.39
Arrears pension contribution for FY-18	-	16.07	-
Addl. Cost in respect of new recruitment	-	-	13.19
Total Employee cost	-	467.72	512.58

6.2.2 Repairs and Maintenance Costs:

MESCOM has considered the actuals of FY-19 i.e. Rs.59.14 Cr as base year data for revision of R&M expenditure.

Estimations are detailed below;

Rs. in Cr.

Particulars	FY-19	FY-20	FY-21
Actual Expenses in FY-19	59.14	-	-
Consumer Growth Index	-	3.31%	3.31%
Weighted Inflation Index	-	8.26%	8.26%
Efficiency Factor	-	1.00%	1.00%
Net Growth Rate	-	10.57%	10.57%
Expenses projected	-	65.39	72.31

6.2.3 Administrative and General Costs:

MESCOM has considered the actuals of FY-19 i.e. Rs.106.84 Cr as base year data for revision of A&G expenditure.

Estimations are detailed below;

Rs. in Cr.

Particulars	FY-19	FY-20	FY-21
Actual Expenses in FY-19	106.84	-	-
Consumer Growth Index	-	3.31%	3.31%
Weighted Inflation Index	-	8.26%	8.26%
Efficiency Factor	-	1.00%	1.00%
Net Growth Rate	-	10.57%	10.57%
Expenses projected	-	118.11	130.62

6.2.4 ABSTRACT of Operation and Maintenance (O&M) Costs:

Rs. in Cr.

Year	Approved	Actuals	Revised
Fy-17 (Actuals)	378.31(*)	371.13	-
Fy-18 (Actuals)	483.52(*)	488.67	-
Fy-19 (Actuals)	491.33	558.38	-
Fy-20 (Projection)	595.62	-	651.22
Fy-21 (Projection)	657.35	-	715.51

(*) Approved in APR.

6.3 DEPRECIATION:

CAPEX program of MESOM for the years FY-20 and FY-21 are Rs.1091.44 Cr and Rs.914.75 Cr, respectively.

In the year FY-19, addition of assets is Rs.531.75 Cr which is about 70% of the proposed capex. Hence, MESCOM is considering the 75% of the proposed capex as addition of assets during FY-20 and FY-21.

Further, weighted average rate of depreciation in the base year FY-19 is 4.80% on the average of the opening & closing balances of value of assets. The same rate has been considered to estimate the depreciation for the years FY-20 and FY-21.

Weighted average rate of depreciation in FY-19: (Rs. in Cr.)

(a) Tangible Assets (Actuals FY-19):

Particulars	Average of Opening & Closing Assets in FY-19 (Actuals)	Depreciation Provided in FY-19 (Actuals)	%
Land and rights	6.03	-	-
Buildings	88.47	2.98	3.37%
Hydraulic Works	2.99	0.15	5.02%
Other Civil Works	0.77	0.03	3.90%
Plant & Machinery	2,347.13	114.01	4.86%
Vehicles	8.45	0.41	4.85%
Furniture Fixtures	8.06	0.42	5.21%
Office Equipment	6.16	0.37	6.01%
Total:	2,468.06	118.37	4.80%

Note:

1. The assets created out of Government grants and consumer contribution till 31-03-2016 is Rs.515.17 Cr which is not included in the gross block assets shown in the financial statements since FY-17. As such, the depreciation charged on these assets is being reduced in the total depreciation.

Accordingly, the above mentioned depreciation amount of Rs.118.37 Cr is after deducting the depreciation amount of Rs.27.11 Cr which is related to the depreciation component in respect of the assets created out of Government grants and consumer contribution upto 31-03-2016.

2. Further, the assets created out of Government grants and consumer contribution from FY-17 to FY-19 is Rs.270.47 Cr and the same is included in the gross block assets indicated in the financial statements of FY-19.

As per the prevailing policy, depreciation amount of Rs.18.01 Cr on the assets created out of grants and consumer contribution form FY-17 to FY-19 is not considered under the head 'Depreciation' but considered under the head 'Other Income'.

(b) In-Tangible Assets (Actuals FY-19):

Particulars	Average of Opening & Closing Assets in FY-19 (Actuals)	Depreciation Provided in FY-19 (Actuals)	%
Software Acquired	12.57	7.32	58.23%

For estimating the depreciation for the years FY-20 and FY-21, the following norms have been adopted;

1. Weighted average of the depreciation with reference to average of the opening and closing gross block assets of FY-19 is considered.
2. Since the assets created out of Government grants and consumer contribution till 31-03-2016 i.e. Rs.515.17 Cr is not included in the gross block assets shown in the financial statements since FY-17, obviously the depreciation amount on these assets is not included in the depreciation estimations for the years FY-20 and FY-21.
3. The assets created out of Government grants and consumer contribution from FY-17 to FY-19 is Rs.270.47 Cr and the additions considered for each years of FY-20 and FY-21 is Rs.90.16 Cr. The same is indicated and deducted in Format D-15 (Gross Block Assets) for clarity.

4. Further, as per the prevailing policy, depreciation estimated on the assets created out of grants and consumer contribution is indicated and deducted in Format D-8.

Estimated depreciation for FY-20:

(Rs. in Cr.)

(a) Tangible Assets (Projections FY-20)

Particulars	Average of Opening & Closing Assets in FY-20 (Projections)	%	Depreciation Provided in FY-20 (Projections)
Land and rights	6.06	-	-
Buildings	108.51	3.37%	3.66
Hydraulic Works	3.35	5.02%	0.17
Other Civil Works	0.9	3.90%	0.04
Plant & Machinery	2,943.32	4.86%	143.05
Vehicles	12.68	4.85%	0.61
Furniture Fixtures	8.15	5.21%	0.42
Office Equipment	13.4	6.01%	0.81
Total:	3096.36	4.80%	148.76
Less: Assets created out of Government grants and consumer contributions	315.55	4.80%	15.15
Net Dep. Charged	2780.81	4.80%	133.61

(b) In-Tangible Assets (Projections FY-20):

Particulars	Average of Opening & Closing Assets in FY-20 (Actuals)	%	Depreciation Provided in FY-20 (Projections) %
Software Acquired	17.38	58.23%	10.06

Estimated depreciation for FY-21:

(Rs. in Cr.)

(a) Tangible Assets (Projections FY-21):

Particulars	Average of Opening & Closing Assets in FY-21 (Projections)	%	Depreciation Provided in FY-21 (Projections)
Land and rights	6.09	-	0.00
Buildings	130.84	3.37%	4.41
Hydraulic Works	3.74	5.02%	0.19
Other Civil Works	1.04	3.90%	0.04
Plant & Machinery	3,601.19	4.86%	175.02
Vehicles	17.1	4.85%	0.83
Furniture Fixtures	8.26	5.21%	0.43
Office Equipment	21.39	6.01%	1.29
Total:	3789.65	4.80%	182.21
Less: Assets created out of Government grants and consumer contributions	405.71	4.80%	19.47
Net Dep. Charged	3,383.94	4.80%	162.74

(b) In-Tangible Assets (Projections FY-21):

Particulars	Average of Opening & Closing Assets in FY-21 (Actuals)	%	Depreciation Provided in FY-21 (Projections) %
Software Acquired	17.38	-	-

Abstract of Depreciation:

Year	Rs. in Cr.		
	Approved	Actuals	Revised
Fy-17 (Actuals)	75.38(*)	78.45	-
Fy-18 (Actuals)	90.39(*)	90.39	-
Fy-19 (Actuals)	97.02	125.69(**)	-
Fy-20 (Projection)	122.99	-	143.67(**)
Fy-21 (Projection)	143.13	-	162.74(**)

(*) Approved in APR.

(**) including depreciation on non-tangible assets.

6.4 INTEREST AND FINANCE COSTS:

Interest and Finance costs include interest on capital loan, interest on working capital, interest on consumer deposits and other finance costs.

6.4.1 Interest on Capital Loan:

In the Tariff Order 2019, Hon'ble Commission has considered Rs.400 Cr and Rs.325 Cr as capital loan amount for CAPEX for FY-20 and FY-21, respectively.

In this regard, it is to be submitted that in the MYT filing for the 5th control period, MESCOM has proposed CAPEX of Rs.1091.44 Cr and Rs.809.55 Cr for FY-20 and FY-21, respectively. But MESCOM has revised the CAPEX for FY-21 to Rs.914.75 Cr.

As such, MESCOM has estimated the capital loan amount for FY-20 and FY-21 with the following assumptions;

- In the year FY-19 total capex incurred is Rs.839.17 Cr, out of which an amount of Rs.226.78 Cr is related to the works for which work orders were sanctioned in the previous years. This means about 27% of the total capex will remain as spill over works for the next years.
- In FY-20 and FY-21, the expected consumers' contribution and Government grants for each of the years is about Rs.166.95 Cr.
- With the above, the estimated capital loan amount for the years FY-20 and FY-21 are;

Particulars	FY-20	FY-21
(a) Proposed CAPEX	1091.44	914.75
(b) 73% of the proposed CAPEX (*)	796.75	667.77
(c) Less: consumers' contribution & Government grants	166.95	166.95
(d) Net CAPEX for the year [(b)-(c)]	629.80	500.82
(e) 70% of (d)	440.86	350.57
Capital Loan recruitment	440	350

(*) since 27% is expected to be carry forward for next years.

Hence, MESCOM is requesting Hon'ble Commission to consider capital loan amount of Rs.440 Cr and Rs.350 Cr FY-20 and FY-21, respectively. Accordingly, computation of interest on capital loan for FY-20 and FY-21 are as follows;

(Rs. in Cr.)

Particulars	As approved in TO-2019		Revised	
	FY-20	FY-21	FY-20	FY-21
Opening Balance of loans			881.69	1172.12
Add: New Loans			440.00	350.00
Less: Repayments			149.57	169.57
Closing Balance of loans			1172.12	1352.55
Average Loan			1026.91	1262.34
Rate of interest			11%	11%
Interest on Capital Loan	101.38	119.27	112.96	138.86

6.4.2 Interest on Consumer Deposits:

Methodology adopted by the Hon'ble Commission in the Tariff Order 2019 has been followed for projecting the interest on consumer security deposit. Increase in consumer deposit in FY-19 with reference to security deposit in FY-18 is taken as the estimated additions for the years FY-20 and FY-21. Further, interest rate of 6.50% has been considered for estimating the interest on consumer deposits.

Accordingly, Interest on Consumer Deposits is projected as below;

Rs.in Cr.

Particulars	As approved in TO-2019		Revised	
	FY-20	FY-21	FY-20	FY-21
OB of the security deposits			625.08	676.33
Add: Collection during the year			51.25	51.25
CB of the security deposits			676.33	727.58
Average			650.71	701.96
Rate of interest			6.50%	6.50%
Interest on Consumer Security Deposits	42.34	46.07	42.30	45.63

6.4.3 Interest on Working Capital:

Interest on working capital has been projected for the years FY-20 and FY-21 as per the norms prescribed in the MYT regulations.

(Interest on Working Capital: Rs. in Crores)

Year	As approved in TO-2019		Revised	
	FY-20	FY-21	FY-20	FY-21
1/12th of O&M Expenses			54.27	59.63
Opening GFA			2712.87	3479.84
1% on opening GFA			27.13	34.80
1/6th of Revenue			604.93	650.89
Total Working Capital			686.33	745.32
Rate of Interest (%)			11.00%	11.00%
Working Capital Interest	71.23	77.55	75.50	81.99

6.4.4 Cost of raising finance:

In FY-19, total charges incurred on raising finance are Rs.1.84 Cr. The same amount has been retained for FY-20 and FY-21 also.

6.4.5 ABSTRACT of Interest and Finance Costs:

(a) **Interest on Capital Loan:**

Rs. in Cr.

Year	Approved	Actuals	Revised / APR proposed
Fy-17 (Actuals)	53.43(*)	53.43	-
Fy-18 (Actuals)	50.87(*)	51.62	-
Fy-19 (Actuals)	80.75	67.80	67.79
Fy-20 (Projection)	101.38	-	112.96
Fy-21 (Projection)	119.27	-	138.86

(*) Approved in APR.

(b) **Interest on Consumers Security Deposits:**

Rs. in Cr.

Year	Approved	Actuals	Revised / APR proposed
Fy-17 (Actuals)	35.68(*)	35.68	-
Fy-18 (Actuals)	34.02(*)	34.02	-
Fy-19 (Actuals)	35.57	34.15	34.15
Fy-20 (Projection)	42.34	-	42.30
Fy-21 (Projection)	46.07	-	45.63

(*) Approved in APR.

(c) Interest on Working Capital: Rs. in Cr.

Year	Approved	Actuals	Revised / APR proposed
Fy-17 (Actuals)	45.39(*)	36.25	-
Fy-18 (Actuals)	49.19(*)	32.76	-
Fy-19 (Actuals)	64.31	30.95	49.99
Fy-20 (Projection)	71.23	-	75.50
Fy-21 (Projection)	77.55	-	81.99

(*) Approved in APR.

(d) Cost of raising Finance: Rs. in Cr.

Year	Approved	Actuals	Revised / APR proposed
Fy-17 (Actuals)	3.95(*)	3.95	-
Fy-18 (Actuals)	1.10(*)	1.10	-
Fy-19 (Actuals)	3.95	1.84	1.84
Fy-20 (Projection)	1.10	-	1.84
Fy-21 (Projection)	1.10	-	1.84

(*) Approved in APR.

(e) Total of Interest & Finance Charges (a+b+c+d): Rs. in Cr.

Year	Approved	Actuals	Revised / APR proposed
Fy-17 (Actuals)	138.45(*)	129.31	0
Fy-18 (Actuals)	135.18(*)	119.50	0
Fy-19 (Actuals)	184.58	134.74	153.77
Fy-20 (Projection)	216.04	0	232.60
Fy-21 (Projection)	244.00	0	268.32

(*) Approved in APR.

6.4.6 Interest & Other expenses capitalized:

In FY-19, total interest & finance charge capitalized is Rs.2.10 Cr. The same amount has been retained for FY-20 and FY-21 also.

6.5 OTHER DEBITS (including bad debts):

In FY-19, the total 'Other Debits' booked is Rs.20.50 Cr. The same amount has been retained for FY-20 and FY-21 also.

6.7 RETURN ON EQUITY:

Paid up share capital, share deposit and reserves & surplus, *at the beginning of the year*, considered for projection of ‘Return on Equity’ for the years FY-20 and FY-21 as indicated below;

(Return on Equity: Rs. in Crores)

Year	FY-20	FY-21
Opening balance of paid up share capital	481.82	481.82
Share Deposit	46.88	46.88
Reserves & Surplus (#1)	187.72	280.27
Less: Recapitalized Security Deposit	(26.00)	(26.00)
Total:	690.42	782.97
Rate of ROE (grossed up with MAT) [#2]	19.706%	19.706%
ROE (Projection)	136.05	154.29

(#1) excluding Reserve for Material Cost Variance, Capital Reserve and Net worth Adjustments.

[#2] Considered 15.50% of return on equity duly grossed up with the applicable MAT of 21.342% which works out to 19.706%, as approved in Tariff Order 2018.

Status of Debt Equity Ratio:

Particulars	FY-20	FY-21
GFA Closing Balance	3,479.84	4,099.45
Debt	1172.12	1352.55
Equity	858.41	965.43
Normative Debt @ 70% of GFA	2435.89	2869.62
Normative Equity @ 30% of GFA	1043.95	1229.83
% of actual DEBT on GFA	33.68%	32.99%
% of actual EQUITY on GFA	24.67%	23.55%

From the above table, it is clear that the debt equity amount lies within the normative debt equity ratio of 70:30 on the closing balances of GFA.

6.8 PROVISION FOR TAX:

In line with the norms adopted by the Hon’ble Commission in the Tariff Orders, MESCOM has not claimed separately any amount towards income tax as the RoE are projections are considered duly factoring MAT.

6.9 FUNDS TOWARDS CONSUMER RELATIONS:

Hon'ble Commission has allowed an amount of Rs.50 lakhs towards Consumer Education / Relations activities. The same amount has been projected for FY-20 and FY-21 also. In the year FY-19, actual amount incurred under this head is Rs.39 lakhs.

6.9 (A) OTHER INCOME:

In FY-19, the total 'Other Income' booked is Rs.75.84 Cr, as narrated in Chapter-4 (APR for FY-19). This amount includes Rs.18.01 Cr relating to depreciation on the assets created out of Government grants and consumer contribution. Leaving Rs.18.01 Cr, the net 'Other Income' will be Rs.57.83 Cr.

As already stated in para 6.3 above, depreciation estimated on the assets created out of grants and consumer contribution is indicated and deducted in Format D-8. **Hence, an amount of Rs.57.83 Cr booked in FY-19 (excluding the depreciation on the assets created out of Government grants and consumer contribution) is considered as 'Other Income' for each of the years of FY-20 and FY-21.**

6.10 ABSTRACT – Annual Revenue Requirement (Rs. In Cr.):

Projections of the expenditures in all the sub heads are detailed in the respective prescribed formats D1 to D21 and the values are abstracted in the below table;

(Rs. In Cr.

Particulars	FY-19		
	As apprd. In TO-2018	As per Audited Accounts	As proposed for APR
Power Purchase Cost	1,640.56	1,994.99	1,994.99
KPTCL Transmission charges	224.37	226.15	226.15
SLDC Charges	2.09	1.90	1.90
subtotal:	1,867.02	2,223.04	2,223.04

(Rs. In Cr.

Particulars	FY-19		
	As apprd. In TO-2018	As per Audited Accounts	As proposed for APR
O&M Costs	491.33	558.42	558.42
Depreciation	97.02	125.69	125.69
Interest & Finance Charges	184.58	134.74	153.77
Interest & Fin.charges Capitalized	(2.39)	(2.10)	(2.10)
Other Debits	-	18.42	18.42
Extraordinary Items	-	36.60	36.60
Net prior period (credits) / charges	-	-	-
Provision for taxes	-	0.16	0.16
Funds towards consumer relations	0.50	0.39	0.39
TOTAL:	2,638.06	3,095.32	3,114.35
Return on Equity	121.67	-	92.55
Net movement of Regulatory Asset	-	276.38	-
APR (Surplus) / Deficit	553.84	-	-
Other Income	(67.87)	(75.84)	(75.84)
ARR:	3,245.70	3,295.86	3,131.06

(Rs. In Cr.

Particulars	FY-20		FY-21	
	As apprd. In TO-2019	Revised	As apprd. In TO-2019	Revised
Power Purchase Cost	2,347.11	2,390.56	2,506.71	2,722.66
KPTCL Transmission charges	259.00	259.00	271.06	271.06
SLDC Charges	1.41	1.90	1.92	1.90
subtotal:	2,607.52	2,651.46	2,779.69	2,995.62
O&M Costs	595.62	651.22	657.35	715.51
Depreciation	122.99	143.67	143.13	162.74
Interest & Finance Charges	216.04	232.60	244.00	268.32
Interest & Fin.charges Capitalized	(6.00)	(2.10)	(7.00)	(2.10)
Other Debits	-	18.42	-	18.42
Extraordinary Items	-	-	-	-
Net prior period (credits) / charges	-	-	-	-
Provision for taxes	-	-	-	-
Funds towards consumer relations	0.50	0.50	0.50	0.50
TOTAL:	3,536.67	3,695.72	3,817.67	4,159.46
Return on Equity	122.20	136.05	122.20	154.29
Net movement of Regulatory Asset	-	-	-	-
APR (Surplus) / Deficit	28.22	-	-	(221.19)
Other Income	(52.02)	(57.83)	(55.08)	(57.83)
ARR:	3,635.07	3,773.99	3,884.79	4,034.28

6.11 It is to be submitted before the Hon'ble Commission to consider the projected Aggregate Annual Revenue Requirement of MESCOM as elaborated above. The enclosed formats from A1 to D24 have contained the costs under each sub heads of income / expenditure.

6.12 **CAPITAL INVESTMENT PROGRAMME:**

Proposed CAPEX programme for FY-20 and FY-21 is detailed below;

(Rs.in Cr.)

Sl. No.	Particulars	FY-20	FY-21	
			As already filed	Revised
A.	Regular works			
1.	Extension & Improvement (E&I) works (Additional Transformers, Link-Lines, HT/LT Re-conductoring, HVDS , UG/AB Cable etc.)	100.00	250.00	250.00
2.	DTC metering	52.69	2.70	45.00
3.	Replacement of MNR/DC & Electromechanical meters by Static meters and SMART metering	5.00	20.00	5.00
4.	Replacement of faulty Distribution Transformers	5.00	5.00	5.00
5.	Service Connection	50.00	55.00	55.00
6.	Rural Electrification (General)			
a.	Electrification of Hamlets	2.00	2.00	2.00
b.	Energisation of IP sets under general, Ganga Kalyana schemes etc	45.00	55.00	55.00
c.	Electrification of BPL Households	0.25	0.25	0.25
	Sub- Total	47.25	57.25	57.25
7.	Tribal Sub-Plan			
a.	Electrification of Tribal Colonies	1.50	1.50	1.50
b.	Energisation of IP sets	0.80	0.85	0.95
c.	other improvement works	0.05	0.05	0.05
	Sub- Total	2.35	2.40	2.50
8.	Special Component Plan			
a.	Electrification of S.C Colonies	1.00	1.00	1.00
b.	Energisation of IP sets	1.05	1.10	1.40
c.	other improvement works	0.10	0.10	0.10
	Sub- Total	2.15	2.20	2.50
9.	Tools & Plants & Computers	11.50	6.00	10.00
10.	Civil Engineering Works	60.00	60.00	60.00
11.	33 KV Station and Line Works	82.00	100.00	70.00
12.	Solar Roof top on Company Buildings	-	-	1.50
13.	Software Acquired/Purchased for internal use - GPS Survey, Validation, Updation & Enumeration of IP Sets etc.,	4.00	4.00	0.00
	Total-A:	421.94	564.55	563.75

(Rs.in Cr.)

Sl. No.	Particulars	FY-20	FY-21	
			As already filed	Revised
B.	GoI/GoK Scheme works			
1.	Deen Dayal Upadyaya Grama Jyoti Yojana (DDUGJY)	290.00	50.00	50.00
2.	IPDS: System improvement & Strengthening works in R-APDRP / statutory towns	121.50	15.00	20.00
3.	IPDS: Gas insulated substations	75.00	75.00	55.00
4.	IPDS (Integrated Power Development Scheme) Phase II-IT	6.00		6.00
5.	IPDS - RT-DAS	5.00	5.50	0.00
6.	Providing Infrastructure to regularized UIP and general IP sets -Phase-III	82.00	9.50	45.00
7.	Improvement works for Model Electricity Village	25.00	25.00	30.00
8.	Improvement works for Model Sub-division	50.00	58.00	140.00
9.	Saubhagya	15.00	7.00	5.00
	Total-B:	669.50	245.00	351.00
	GRAND TOTAL:	1091.44	809.55	914.75

The Capital Investment Programme of MESCOM for the fiscal year 2020-21 is prepared for a total amount of Rs.914.75 Cr of which Rs.563.75 Cr is allocated for regular works and Rs.351.00 Cr for GoI & GoK schemes as detailed above. In the proposed CAPEX the details of Budget requirement are as given below;

a) System Augmentation & Strengthening:

The System improvement works like providing additional transformers, Link-Lines, Re-conductoring of HT/LT/33kV lines are being carried out regularly for which a Budget provision of Rs.100.00 Cr is made.

Further, it is proposed to replace 25 year old conductor of around 15,000 of DTCs for which additional budget requirement of Rs.150.00 Cr is made. Hence, a total budget provision of Rs.250 Cr is made for FY-21.

b) DTC metering:

As per the guidelines of the Hon'ble Commission, the DTC metering work is already taken up during 2016-17 including maintenance for a period of 5 years. Hence a Budget provision of Rs.45 Cr is made for FY-21.

c) Service Connection works:

As per GoK order works pertaining to electrical infrastructure required for energisation of drinking water supply installations are to be executed by ESCOMs. As large number of drinking water supply applications are being received in MESCOM the capital budget of Rs.55 Cr is proposed for FY-21 under Service connections including water supply works.

d) For energisation of IP sets a Budget of Rs.55 Cr is proposed for FY-21 under general scheme which includes energization of Ganga Kalyana works also.

e) Energisation of IP sets (Providing Infrastructure to regularized UIP sets and general IP sets):

As per GoK order dated 14.07.2014, all the new IP sets are being serviced duly collecting Rs.10,000 towards infrastructure cost. Since large number of IP sets serviced are pending for providing infrastructure, for speedy execution it is proposed to award the works on total turnkey basis under Rate Contract at a cost of Rs.110.19 Cr, the tendering for which is under process. Hence a Budget provision of Rs.45 Cr is made for FY 21.

f) Station and line works:

It is proposed to establish 8 new 33/11KV substations and 6 additional Power transformers in existing 33/11KV substations during 2020-21. Hence budget provision of Rs.70 Cr is made.

g) Other Major allocations:

- Improvement works for Model Electricity village:

As per the Budget Speech 2017-18 by Hon'ble Chief Minister, 6 numbers of villages in each assembly constituency are to be converted as model electricity villages. It is proposed to execute some of the improvement works in the selected villages for which budget provision of Rs.50 Cr was made for the year 2017-18.

Since the works were held up due to court cases during 2017-18, budget provision of Rs.50 Cr was carry forwarded for the year 2018-19.

After the clearance of court case on 14.06.2018, the division wise tenders under rate contract were called and these proposals were placed before the board wherein, it was directed to take up these works by preparing actual DPRs.

As per the directions of board, the division wise DPRs are being prepared based on the actual quantity and tendering will be processed shortly.

Hence, Budget provision of Rs.30 Cr is made for FY 21.

- Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY):

GOI has launched DDUGJY for Rural areas. REC is the Nodal Agency. Scope of work includes feeder separation, strengthening of sub-transmission and distribution system, metering, rural electrification etc. 'In-Principle' approval for an amount of Rs.395.65 Cr has been communicated from REC/GoK during January-2017 for all 4 districts of MESCOM.

At present, except Feeder segregation, Rural Electrification and metering works are under completion stage. Hence, a budget provision of Rs.50 Cr is made for FY-21 anticipating the liabilities.

- Integrated Power Development Scheme(IPDS):

GoI has launched IPDS for Urban/ Semi-urban areas. PFC is the Nodal agency. Scope of work includes strengthening of sub-transmission and distribution network, metering, provision for solar panels, IT enablement works etc.

Sanction has been communicated by PFC for an amount of Rs.157.80 Cr on 16.03.2016 covering 30 statutory towns in 4 circles of MESCOM and additional cost of Rs.9.80 Cr on 01.02.2018 covering 7 statutory towns in 3 Circles of MESCOM namely Mangalore, Udupi & Shivamogga

At present, the works have been completed and finalization of executed quantities with cost, material reconciliation is under process. Hence, a budget provision of Rs.20 Cr is made for FY 21 anticipating the liabilities.

- IPDS:Gas insulated substations:

Under IPDS it is proposed to establish 4 numbers of 33/11KV Gas insulated substations for which M/s PFC has communicated the sanction for Rs.39.48 Cr. Accordingly, tenders have been finalized and LOI has been issued on 06.09.2019 and DWA to be issued for Rs.57.38 Cr. Hence a Budget provision of Rs.55 Cr is made for FY 21.

- IPDS (Integrated Power Development Scheme) Part -II:

The scope of work involves IT applications in IPDS towns i.e. establishing IT infrastructure etc. The DPR amounting Rs.5.84 Cr has been submitted to MoP and approval has been accorded for Rs.4.76 Cr. On behalf of all ESCOMs, BESCOM has floated the tender on 05.06.2018 for implementation of IT enablement Projects (Phase-II-IT) in MESCOM under IPDS scheme at a cost of Rs.5.84 Cr. Hence the budget provision of Rs.6 Cr was made for FY-19.

Since tendering was under process by BESCOM the budget provision of Rs.6 Cr was carry forwarded to FY-20.

Since no bidder participated for the tender invited by BESCOM, it was proposed to invite tenders for IPDS phase II in following different packages as approved by SLDRC meeting held on 24.11.2018.

Package	Scope of Work
1.	DC hardware and Software refresh with version up-gradation of applications and migration of R-APDRP Part-A and IPDS Phase II towns data along with FMS
2.	Hosting DRC on Cloud
3.	IPDS towns IT infrastructure (switches, router, SBMs, workstations PCs, printers etc.) along with FMS
4.	IPDS towns GIS survey
5.	FMS for IPDS Phase II towns
6.	Fixing of Modems to IPDS towns for ESCOMs (excluding BESCOM)

BESCOM on behalf of all ESCOMs invited tender for one of such package and has issued LOI for GIS based Asset Mapping Survey, Digitization and Integration of Consumer Indexing data under IPDS IT Phase –II and work is yet to be awarded.

Since the tenders for remaining packages are yet to be invited by BESCOM, the budget provision of Rs.6 Cr is carry forwarded to FY-21.

• **Model Sub-division:**

Mangaluru & Shivamogga are selected as Smart Cities under flagship programme of Hon’ble Central Government. MESCOM has selected prominent area of Mangaluru & Shivamogga i.e. Attavara Sub-division in Mangalore and City Sub Division-1 in Shivamogga. DPRs amounting Rs.267 Cr have been prepared and approved by Hon’ble KERC to take up the following works.

- Laying of 11kV/LT UG Cable.
- Establishing & Commissioning of RMU.
- Establishing of LT Feeder Pillar Boxes.

The works have been awarded on Total Turnkey (rate contract) basis at a cost of Rs.212.79 Cr.

Accordingly, a Budget provision of Rs.140 Cr is made for FY-21 duly considering the additional amount required for balance works if any.

- **Saubhagya:**

“Pradhan Mantri Sahaj Bijli Har Ghar Yojana- Saubhagya” is a flagship program launched by Govt. of India to achieve universal household electrification in Urban & Rural areas through Grid and Offgrid(solar standalone system) modes.

In MESCOM, for implementation of scheme REC has sanctioned a cost of Rs.3.51Cr for electrification of households and Rs.12.10 Cr additional sanction for creation of infrastructure for electrification of households.

At present, the works have been completed and finalization of executed quantities with cost, material reconciliation is under process. Hence, a budget provision of Rs.5 Cr is made for FY 21 anticipating the liabilities.

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