CHAPTER – 4

ANNUAL PERFORMANCE REVIEW FOR FY18

4.0 CESC's Application for APR for FY18:

The CESC had filed its application on 30th November, 2018 for Annual Performance Review (APR) for FY18, and the Annual Revenue Requirement (ARR) for the control period FY20 to FY22 and revision of retail supply tariff for FY20. The CESC has sought the Annual Performance Review (APR) for FY18 and approval of revised ARR thereon, based on the Audited Accounts.

The Commission had communicated its preliminary observations on the application of CESC on 17th December, 2018. The CESC has furnished its reply to the preliminary observations of the Commission on 26th December, 2018.

The Commission in its Order dated 11th April, 2017, had approved CESC's revised Annual Revenue Requirement (ARR) of Rs.3621.58 Crores along with the retail supply tariff for FY18.

The revised Annual Revenue Requirement (ARR) of CESC as per Annual Performance Review of CESC for FY18, based on the Audited accounts, is discussed in this chapter.

4.1 CESC's Submission:

CESC in its application dated 30th November, 2018, has submitted its proposals for revision of ARR under APR for FY18 as indicated in the following Table:

TABLE – 4.1

APR for FY18 – CESC's Submission

Amount in Rs. Crores

Sl. No	Particulars	APR FY18	
		As approved 11.04.2017	As filed 30.11.2018
1	Energy at Gen Bus- MU	6,972.30	6,864.23
2	Energy at Interface in MU	6,737.33	6,680.00
3	Distribution Losses in %	13.00%	13.20%
4	**Sales in MU**		
	Sales to other than IP & BJ/KJ	3,368.54	3,136.12
	Sales to BJ/KJ	106.17	121.84
	Sales to IP	2,386.77	2,540.15
	Total Sales	**5,861.48**	**5,798.11**
5	**Revenue**		
	Revenue from tariff and Misc. Charges	2276.66	2,210.02
	Tariff Subsidy to BJ/KJ	65.61	76.72
	Tariff Subsidy to IP	1279.31	1,389.20
	Total Existing Revenue	**3621.58**	**3,675.94**
	Expenditure in Rs. Crores.		
6	Power Purchase Cost	2,051.76	2,655.35
	Transmission charges of KPTCL	301.47	304.04
	SLDC Charges	3.14	3.15
	Power Purchase Cost including cost of transmission	**2,356.37**	**2,962.54**
7	Employee Cost		415.70
	Repairs & Maintenance		50.39
	Admin. & General Expenses		83.98
	Total O&M Expenses	**503.63**	**550.07**
8	Depreciation	116.83	182.92
9	**Interest & Finance charges**		
10	Interest on Loans	131.41	111.19
11	Interest on Working capital	69.23	60.33
12	Interest on belated payment on PP Cost	0.00	26.63
13	Interest on consumer deposits	35.40	38.02
14	Other Interest & Finance charges	0.52	1.19
15	Less: interest capitalized	-24.00	-5.08
	Total Interest & Finance charges	**212.56**	**232.28**
16	Other Debits	0.00	14.78
17	Net Prior Period Debit/Credit	0.00	54.37
18	Return on Equity	0.00	0.00
19	Provision for taxation	0.00	1.63
20	Disallowance of Interest & Depreciation on imprudent Investment in FY16	-1.55	0.00

Sl. No	Particulars	APR FY18	
		As approved 11.04.2017	As filed 30.11.2018
21	Funds towards Consumer Relations/Consumer Education	0.50	0.00
22	Other Income	-59.48	-99.62
23	Deficit of FY16 Carried forward	492.73	-
	Net ARR	**3,621.58**	**3,898.97**

Considering the revenue of Rs. 3,675.94 Crores against a net ARR of Rs. 3,898.97 Crores, CESC has reported a gap in revenue of Rs.223.03 Crores for FY18.

4.2 CESC's Financial Performance as per Audited Accounts for FY18:

An overview of the financial performance of CESC for FY18 as per its Audited Accounts is as given below:

TABLE – 4.2
Financial Performance of CESC for FY18

Rs. Crores

Sl. No.	Particulars	Amount
	Receipts	
1	Revenue from Operations	3,624.39
2	Other Income	167.29
	Total Revenue	**3,791.68**
	Expenditure	
3	Power Purchase Cost	2,655.36
4	Transmission charges of KPTCL	304.04
5	SLDC Charges	3.14
	Power Purchase Cost including cost of transmission	**2,962.54**
6	Employee Benefit Expenses	415.70
7	Finance cost	232.29
8	Depreciation & Amortization Expense	182.92
9	Other Expenses	219.64
10	Regulatory Income	-224.79
11	Provision for Taxation	2.82
12	Short Provision of Income Tax	0.52
13	Deferred Tax Liability	-1.71
	Total Expenditure	**3,789.93**
14	**Net Profit for the period**	**1.76**

As per the Audited Accounts, CESC has a surplus of Rs1.76 Crores for FY18.

The profits / losses reported by CESC in its audited accounts in the previous years are indicated in the following Table:

TABLE – 4.3
CESC's Accumulated Profit / Losses

Particulars	Amount in Rs. Crores
Accumulated losses as at the end of FY10	-285.15
Profit earned in FY11	11.38
Losses incurred in FY12	-123.45
Losses incurred in FY13	-269.63
Losses incurred in FY14	-15.61
Profits earned in FY15	40.27
Profits earned in FY16	7.92
Profits earned in FY17	21.44
Profits earned in FY18	1.76
Accumulated losses as at the end of FY17	**-611.06**

As seen from the above table, the accumulated loss as at the end of FY18 is Rs.611.06 Crores.

Commission's analysis and decision:

As per the provisions of the MYT Regulations, the Commission has taken up the Annual Performance Review for FY18, duly considering the actual revenue and expenditure booked as per the Audited Accounts against the revenue and expenditure approved by the Commission in its Tariff Order dated 11th April, 2017. The item-wise review of expenditure and the revenue and the decisions of the Commission thereon are as discussed in the following paragraphs:

4.2.1 Sales for FY18:

A. Sales Other than IP Sets:

The Commission in its Tariff Order,2017, dated 11.04.2017 had approved total sales to various consumer categories at 5861.48 MU, as against the CESC's proposal of 6506.22 MU. The actual sales of CESC as per the current APR filing [D-2 FORMAT] is 5793.18 MU, indicating a decrease in sales to the extent of 68.30 MU as against the approved sales. There is an increase in sales of 116.64 MU in LT-categories and decrease in sales of 184.94 MU in HT-categories. The Commission notes that, as against approved sales of 3368.54 MUs to categories other than BJ/KJ and IP sets, the actual sales achieved by CESC is 3160.80 MU, resulting in the reduction of sales to these categories by 207.74 MU. Further, CESC has sold 2632.38 MU to BJ/KJ and IP category as against approved sales of 2492.94 MU resulting in increased sales to these categories by 139.44 MU.

The category-wise sales approved by Commission and the actuals as filed for FY 18 are indicated in the table below:

TABLE-4.4
Category-wise sales

Energy in MU

Category	Approved in TO 2017	Actuals	Difference MU
LT-2a*	1,030.81	993.91	-36.90
LT-2b	9.73	9.62	-0.11
LT-3	297.00	289.24	-7.76
LT-4b	0.80	0.73	-0.07
LT-4c	14.84	19.87	5.03
LT-5	143.77	140.60	-3.17
LT-6	216.56	236.83	20.27
LT-6	111.53	111.20	-0.33
LT-7	15.82	16.07	0.25
HT-1	463.65	422.09	-41.56
HT-2a	776.95	669.15	-107.80
HT-2b	126.28	121.53	-4.75
HT-2c	65.27	49.85	-15.42
HT-3a & b	84.51	73.26	-11.25
HT-4	5.93	3.60	-2.33
HT-5	5.08	3.25	-1.83
Sub total	**3,368.54**	**3,160.80**	**-207.74**
BJ/KJ	106.17	92.23	-13.94
IP	2,386.77	2,540.15	153.38
Sub total	**2,492.94**	**2,632.38**	**139.44**
Grand total	**5,861.48**	**5,793.18**	**-68.30**

****Including BJ/KJ installations consuming more than 40 units/month***

The Commission notes that the major categories contributing to the reduction in sales are LT-2a (-36.90 MU), HT Industries (107.80 MU), HT Water supply (41.56 MU), HT-2c (15.42 MU) and the categories contributing to increase in sales are IP sets (153.38 MU) and LT-Water supply [20.27 MU].

CESC has attributed the reduction in HT-2a sales to eighteen industries opting for Open Access/wheeling. CESC has also stated that other HT consumers have also opted for OA/wheeling in FY18.

The Commission while noting the above replies of CESC, had sought additional information in its preliminary observations. The preliminary observations of the Commission and the replies furnished by CESC are discussed below:

a. The Number of BJ/KJ installations is indicated as 4,43,394 at page-47, whereas at page 39 and in D-2 Format, it is indicated as 4,95,724. CESC was directed to furnish the reconciled figure.

   CESC in its replies has submitted that, the number of BJ/KJ installations indicated at page-47 as 4,43,394, are live installations which are consuming less than 40 units/month/installation, for which subsidy is claimed.

   The Commission notes that as per audited accounts, the installations which are consuming less than 40 units/month/installation is 4,43,394, which is reckoned by the Commission. The balance 52,330 out of 4,95,724 installations is reckoned under BJ/KJ consuming more than 40 units/month/installation.

b. CESC has not furnished any explanation for reduction in HT-1 water supply sales and increase in LT-6 water supply sales. As such CESC was directed to furnish the reasons for the same.

   CESC in its replies, has attributed the reduction in HT-1 sales to the reduction in specific consumption from 3.345 MU/annum in FY17 to 2.871 MU in FY18.

   Regarding increase in LT-6 Water supply sales CESC has stated that the increase was due to pumping water to fill up ponds, lakes and tanks, due to water crises.

   The Commission has noted the replies furnished by CESC.

B. Sales to IP sets:

a) Specific consumption of IP sets for FY18 as approved by the Commission in the Tariff Order dated 11.04.2017 is 6,728 units / IP / Annum. As per the data of furnished by CESC, Mysore, in its current tariff filing, the specific consumption for FY18, works out to 7,293 units / IP / Annum. It is observed that there is an increase in specific consumption by 565 units / IP / Annum i.e., 8.4% in spite of decrease in the number of consumers.

b) Total sales to IP sets approved by the Commission for FY18 in the Tariff Order is 2,386.77 MU for 3,69,402 number of IP installations. As reported by the CESC, Mysore, as per audited accounts, the actual consumption by 3,56,278 number of IP set installations is 2,540.15 MU, indicating an increase of 153.38 MU, i.e., the sales have increased by 6.43%.

c) As reported by CESC Mysore, the number of IP set installations serviced during FY18 are 3,59,021 as against the approved numbers of 3,69,402 corresponding to a decrease of 10,381 number of installations i.e., the number of IP installations serviced has decreased by 2.81%. The Commission notes that for claiming subsidy, CESC in its audited accounts has indicated the number of installations as 3,56,278, whereas in the D-2 format of tariff filing and in the table indicating the average realization rate enclosed to the audited accounts, CESC has indicated the number of IP sets as 359021, which is reckoned by the Commission. CESC, Mysore was directed to explain and justify with proper reasons as to why the sales and the specific consumption have increased by 8.4% and 6.43% respectively, in spite of decrease in number of installations serviced by 10,381 numbers, i.e 2.81%.

d) The Commission in its Tariff Order, dated 11th April, 2017, had directed the CESC to furnish feeder-wise IP-set consumption based on the 11 kV feeders' energy meter reading data, every month, to the Commission, in respect of exclusive agricultural feeders segregated under NJY, considering that the energy consumed by the IP sets can be measured at the 11 kV level at the substations after deducting the losses prevailing in the distribution system.

e) The CESC, in its reply to the preliminary observations, has stated that it has submitted the IP set consumption, based on the energy meter reading data in respect of the segregated agricultural feeders as desired by the Commission. It has further stated that number of exclusive agricultural feeders in service were 563 only during FY18. The specific consumption in respect of 2,30,280 number of IP sets in the segregated agricultural feeders works out to 6,794 units / installation / annum. CESC has also stated that the duration of power supply arranged to exclusive agricultural feeders is 7 hours, as per the direction of the Government of Karnataka. The CESC while submitting the IP sets' consumption as per the agricultural feeders' energy meter reading data, has stated that the specific consumption was high for the FY12, FY13, FY14 & FY17 and low for FY15, FY16 and FY18 and has requested the Commission to approve the sales quantum of 2,540.15 MU for FY18 as submitted by it.

f) The Commission notes that, the sales during FY18 has decreased compared to the sales during FY17 by 602.98 (3143.13 – 2540.15) MU and the specific consumption has decreased by 2394 (9687 – 7293) Units / IP / annum.

g) The Commission is of the view that, increase in both specific consumption and overall consumption in FY18 as compared to the approved consumption for FY18 in its Tariff Order dated 11.04.2017 may be due to supplying more energy than the scheduled hours of power to IP sets. This should be stopped forthwith as any attempt to give supply to IP sets for more than the scheduled hours of power supply, will result in increased consumption, which in turn will result in higher subsidy burden to the Government. Therefore, the CESC is directed to strictly regulate the hours of power supply made to agricultural feeders which are segregated under NJY and adhere to the number of hours of power supply as fixed by the Government.

h) CESC, in its reply to the preliminary observations has stated that, based on the GPS survey, it has considered 2,212 numbers of dried up /

defunct IP installations while computing the consumption by IP set installations during FY18.

i) The CESC vide E-mail dated 24.12.2018, has reiterated the consumption as 2,540.15 MU for FY18 by submitting the details of the energy, based on the meter reading data of agricultural feeders recorded at the sub-stations, considering initial readings, final readings and multiplying factor of the energy meters, to arrive at the net consumption.

j) As discussed above, the IP sets' consumption submitted by the CESC Mysore, as per the segregated agricultural feeders' meter reading data is 2,540.15 MU, which is justified as claimed by it in its tariff filing. Hence, the Commission accepts the same and approves 2,540.15 MU as the sales to IP Sets for FY18.

In view of the above and considering the audited accounts, the Commission approves the sales for FY18, as indicated in the table below:

Energy in MU

Category	Actuals
LT-2a*	993.91
LT-2b	9.62
LT-3**	294.16
LT-4b	0.73
LT-4c	19.87
LT-5	140.60
LT-6	236.83
LT-6	111.20
LT-7	16.07
HT-1	422.09
HT-2a	669.15
HT-2b	121.53
HT-2c	49.85
HT-3a & b	73.26
HT-4	3.61
HT-5	3.25
Sub total	**3,165.73**
BJ/KJ	92.23
IP	2,540.15
Sub total	**2,632.38**
Grand total	**5,798.11**

****Including BJ/KJ installations consuming more than 40 units/month***

***** includes 4.92 MU of auxiliary consumption***

Thus, the Commission approves 5798.11 MU as sales for FY18.

4.2.2 Distribution Loss for FY18:

The Commission in its Tariff Order dated 11th April,2017 had approved distribution loss for FY18 as indicated below:

Distribution Loss Range	FY18
Upper limit	13.50%
Average	**13.00%**
Lower Limit	12.50%

The CESC, in its APR, has reported the distribution losses at 13.20% for FY18, which is computed as under:

1	Energy at Interface Points in MU	6,680.00
2	Total sales	5,798.11
3	**Distribution loss as a percentage of input energy at IF points**	**13.20%**

Commission's Analysis and Decisions:

The Commission, in its preliminary observations had noted that, as per the audited accounts for FY18, the actual distribution loss is 13.20% as against 13.00% approved by the Commission, in its Tariff Order dated 11th April 2017, which is higher than the approved loss by 0.20% percentage point. Considering the achievement made by the CESC in reduction of distribution losses during the previous years and the amount of capital expenditure incurred in the recent past, and also during the financial year, the efforts made by the CESC in reduction of the distribution loss for FY18 are not satisfactory. CESC was directed to furnish the reasons for not achieving the distribution loss levels as per the targets approved by the Commission, besides furnishing the division-wise distribution loss levels for FY18.

The CESC, in its replies has stated that it has brought down the losses from 16.20% in FY12 to 13.10% in FY17 and that huge capex is required to bring down losses by 0.10%. It is also stated that all E & I work would not bring down the losses and in such cases investments are made to improve safety and reliability. Therefore, CESC has requested the Commission to consider the losses at 13.20% for FY18.

The Commission notes that, the reply submitted by the CESC in this regard is not fully acceptable and finds that any investment made on the distribution network systems should not only improve reliability and safety but reduce the distribution loss also. CESC in its replies has only furnished the energy audit of towns and cities, instead of division-wise losses as directed by the Commission. The Commission notes that the losses are high in Hassan, Kollegala and Mandya. The CAPEX should be prioritized and investments should be made in the divisions where distribution losses are higher. Hence, CESC is directed to identify the high loss making divisions and submit a report to the Commission with action plan to reduce the losses within one month of the issue of this Order.

Thus, the Commission decides to approve the actual distribution loss of 13.20% for FY18.

Further, the Distribution loss level of 13.20 % reported by the CESC, is within the upper and lower limit of losses specified by the Commission. Therefore, allowing any incentive or levying of any penalty for non-achievement of loss targets, will not arise.

4.2.3 Power Purchase for FY18:

CESC's Submission:

The Commission in its Tariff Order dated 11th April, 2017, had approved power purchase quantum of 6972.30 MU for CESC, indicating source-wise quantum and cost of power purchase for FY18. CESC, in its application has submitted the details of actual power purchase for FY18 for the purpose of Annual Performance Review as indicated in the following Table:

TABLE 4.5

Power Purchase for FY18- Approved and Actuals

Source of Generation	Approved for 2017-18			Actuals for 2017-18			Difference			% increase (+)/decrease (-) over approved figures	
	Energy in MU	Amount in Crores	Avg cost in Rs/kWh	Energy in MU	Amount in Crores	Avg cost in Rs/kWh	Energy in MU	Amount in Crores	Avg cost in Rs/kWh	Energy	Amount
	1	2	3	4	5	6	7=4-1	8=5-2	9=6-3	10	11
KPCL Hydel Stations	2,434.99	153.77	0.63	1,409.98	114.98	0.82	-1,025.01	-38.79	0.19	-42.09	-25.22
KPCL-Thermal Stations	1,031.07	445.65	4.32	829.95	429.74	5.18	-201.12	-15.91	0.86	-19.51	-3.57
CGS	2251.49	804.34	3.57	2,455.90	945.23	3.85	204.41	140.89	0.28	9.08	17.52
Major IPPs	164.70	80.70	4.90	142.53	72.21	5.07	-22.17	-8.49	0.17	-13.46	-10.52
Minor IPPs(RE Projects)*	904.85	381.73	4.22	857.80	363.99	4.24	-47.05	-17.74	0.02	-5.20	-4.65
Other State Hydro Projects	12.70	5.26	4.14	11.65	7.11	6.10	-1.05	1.85	1.96	-8.26	35.08
Short/Medium, UI & Sec 11**	172.50	70.14	4.07	485.44	199.15	4.10	312.94	129.01	0.03	181.42	183.94
Transmission Charges (KPTCL/PGCIL)	0.00	411.26	-	0.00	527.51	-	0.00	116.25	0.00	-	28.27
SLDC Charges + Posoco Charges	0.00	3.52	-	0.00	4.42	-	0.00	0.90	0.00	-	25.68
Energy Balancing	0.00	0.00	-	663.77	272.14	4.10	663.77	272.14	4.10	-	-
Reactive Energy Charges, Open Access, South Western Railway, KSEB and others	0.00	0.00	-	7.22	26.06	36.09	7.22	26.06	36.09	-	-
Total	6,972.30	2,356.37	3.38	6,864.23	2,962.54	4.32	-108.06	606.17	0.93	-1.55	25.72
Note	***includes medium term power purchase from Cogeneration** ****Excludes medium term power purchase from Cogeneration**										

Commission's analysis and decisions;

1. The actual power purchase for FY18, as per the annual accounts submitted by CESC is 6,864.23 MU amounting to Rs 2,962.54 Crores, as against the approved quantum of 6,972.30 MU at Rs 2,356.37 Crores. This indicates that there is a decrease in the quantum of power purchased to an extent of 108.06 MU and there is also an increase in the cost by Rs. 606.17 Crores.

2. As against the approved cost of energy amounting to Rs 2,356.37 Crores, the actual cost of power purchased by CESC is Rs 2,962.54 Crores for FY 18, which accounts for an increase of 25.72% over the approved cost.

3. On an analysis of the source-wise approved and actual power purchases, it is observed that, there is deviations in the quantum of energy purchased

and its cost. There is shortfall in the supply from sources of power from State Owned Hydel projects and Thermal projects and also Major IPPs and Minor IPPs as indicated in the following table:

Source of Generation	Approved Energy for 2017-18 in MU	Actual Energy for 2017-18 in MU	Shortfall Energy in MU
KPCL Hydel Stations	2,434.99	1,409.98	1,025.01
KPCL-Thermal Stations	1,031.07	829.95	201.12
Major IPPs	164.70	142.53	22.17
Minor IPPs(RE Projects)*	904.85	857.80	47.05
Total	4,535.61	3,240.26	1,295.35
Actual total consumption is less than the Approved consumption by 108.06 MU	-108.06	0.00	-108.06
Grand Total	**4,427.55**	**3,240.26**	**1,187.29**

The shortfall from the cheaper source of KPCL Hydel projects, which was due to poor monsoon and the short fall from KPCL Thermal projects which was due to shortage of coal as well as the shortfall from Major IPPs and Minor IPPs, has been made good by procuring power at an additional cost, on short term/medium term basis and un-requisitioned surplus power from CGS and by overdrawing energy from other four ESCOMs, as indicated below:

Source of Generation	Approved Energy for 2017-18 in MU	Actual Energy for 2017-18 in MU	Excess Energy in MU
CGS	2,251.49	2,455.90	204.41
Short/Medium , UI & Sec 11**	172.50	485.44	312.94
Energy Balancing		663.77	663.77
Total	**2,423.99**	**3,605.11**	**1,181.12**

4. There is overall increase in the per unit cost of energy purchased due to the following:

   a) The PGCIL Transmission charges have increased by 104% to Rs.223.46 Crores, when compared to the approved cost of 109.79 Crores.

   b) In the Tariff Order 2017, for FY18, the per unit cost of the energy purchased from co-generation plant under medium term was considered at Rs 3.47 per unit as an interim tariff. The actual cost per unit of energy increased to Rs 4.48 per unit, consequent to the determination of the final tariff for the said medium term power purchase.

c) The power from the new thermal projects like Kudgi STPS, BTPS U#3 and YTPS was considered as infirm power. The actual cost per unit of energy increased, consequent to achievement of Commercial Operation of these thermal plants due to applicability of preferential tariff, for which tariff is yet to be determined.

d) The increase in power purchase quantum, the change in the source-wise mix of supply and the reconciliation of energy and its cost among ESCOMs, have resulted in increase in average power purchase cost of CESC.

The Commission notes an abnormal contribution from the State towards payment of PGCIL transmission charges. Due to this there will be a substantial financial impact, resulting in an increase in the retail supply tariff to the end consumers. The Commission, therefore, directs ESCOMs/PCKL to take appropriate action immediately, to resolve the issues with the appropriate authority regarding the PGCIL transmission tariff. Henceforth, ESCOMs/PCKL shall constitute a dedicated team, which studies the pros and cons of any methodologies/amendments proposed to PGCIL's Transmission tariff or in any such other relevant matters, and appropriately communicate the same to the concerned authorities, at the draft stage itself. The Commission will not allow such tariff in future, if it considers that ESCOMs/ PCKL have not taken effective and prompt steps to ensure that the PGCIL's transmission tariff is fair and equitable to the State.

6. The Commission has noted that the per unit total cost paid to some of the State, Central Power Stations including Hydel and Thermal, indicated in the D1 Format, was on a higher side as compared to the per unit cost paid by the BESCOM. The Commission recommends, CESC to examine the same in detail and recover excess payments, if any, from the generators, under intimation to the Commission, while explaining the reasons for the difference.

In the above circumstances, the Commission hereby decides to approve the actual power purchases of 6864.23 MU at a cost of Rs 2962.54 Crores, for the

purpose of Annual Performance Review for FY18, subjected to recovery of excess payments made to generators, if any, as stated in sub para-6 above.

4.2.4 RPO Compliance:

1. CESC in their tariff petition have filed the details of RPO compliance for solar and non-solar RPO for 2017-18 as indicated below:

TABLE-4.6

a. Solar RPO details of CESC for 2017-18

SL. NO	PARTICULARS	QUANTUM IN MU
1	Total Power purchase quantum from all sources excluding hydro sources	5,308.99
2	Solar renewable energy purchased under PPA route at generic tariff including solar RE purchased from KPCL	215.53
3	Solar Energy purchased under Short-Term	0
4	Solar REC purchased at APPC	0
5	Solar energy pertaining to green energy sold to consumers under green tariff	0
6	Solar energy purchased from other ESCOMs	0
7	Solar energy sold to other ESCOMs	0
8	Solar Energy purchased from NTPC as bundled power	48.30
9	Solar energy purchased from any other source-SRTPV	4.90
10	Total Solar energy purchased(2+8+9)	268.73
11	Solar Energy accounted for the purpose of RPO	268.73
12	**Solar RPO complied in %(No. 11/No.1)**	**5.06**

TABLE-4.7

b. Non-Solar RPO details of CESC for 2017-18

SL NO	PARTICULARS	QUANTUM IN MU
1	Total Power purchase quantum from all sources excluding hydro sources	5,308.99
2	Non-solar renewable energy purchased under PPA route @ generic tariff including non-solar RE purchased from KPCL	533.33
3	Non-solar short term purchase from RE sources only (Incl.Sec-11)	0
4	Non Solar REC purchased at APPC	5.78
5	Non-solar RE pertaining to green energy sold to consumers under green tariff	0
6	Non-solar REC purchased from other ESCOMs	0
7	Non-solar REC sold to other ESCOMs	0
8	Non-solar REC purchased from any other source	0
9	Surplus solar accounted	122.74

10	Total Non-solar energy purchased (2-4+9)	650.29
11	Non-solar RE accounted for the purpose of RPO	0
12	Non-solar RPO complied in %(No.10/No.1)	12.25%

2. The CESC, while furnishing the details of RPO compliance for the FY18, has stated that they have met solar RPO. Regarding non-solar RPO, it is stated that after considering the excess solar energy of 122.74 MU, they have met the non-solar RPO.

3. The observations of the Commission on the RPO compliance and the replies furnished by CESC are as under:

   1. The solar energy purchased from NTPC for FY18 is indicated as 48.30 MU at pg-54 and in D-1 format, the NTPC solar energy is indicated as 13.86 MU. CESC was directed to reconcile the figures and furnish the final data.

      CESC in their replies has stated that at page -54, the solar energy indicated is inclusive of NTPC NSM solar energy, whereas in D-1, the data indicated pertains only to solar energy of NTPC VVNL**. Hence, it is confirmed that the total solar energy purchased from NTPC is 48.30 MU.**

      The Commission has noted the replies and same is appropriately considered in this Order.

   2. Similarly, in case of Non-solar, the total non-solar energy under PPA is indicated as 533.33 MU, whereas as per D-1 format it is 427.83 MU. CESC was directed to reconcile the figures and furnish the final data.

      CESC in their replies has stated that non-solar energy indicated in D-1 excludes purchase from cogeneration under medium term. Thus considering the cogeneration energy of 132.91, it is stated that the total non-solar purchased is 560.74 MU and after setting-off 27.41 MU accounted for FY17 RPO compliance, the net energy considered is 533.33 MU.

      The Commission has noted the replies and same is appropriately considered in this Order.

3. CESC was also directed to furnish the estimates for complying with solar and non-solar RPO for FY18-19 to FY21-22, including any cost implication for purchasing RECs, if any.

   CESC has furnished the above data.

4. For validating the RPO compliance and to work out APPC, CESC was directed to furnish the data as per the specified format, duly reconciling the data with audited accounts:

   CESC in their replies has furnished the following data:

TABLE-4.8

a. Non-solar RPO Compliance:

No.	Particulars	Quantum in MU	Cost- Rs. Crores
1	Total Power Purchase quantum from all sources excluding hydro sources	5,308.99	2,828.97
2	Non–solar Renewable energy purchased under PPA route at Generic tariff including Non-solar RE purchased from cogeneration and excluding 27.41 MU	527.56	203.11
3	Non –solar Short-Term purchase from RE sources, excluding Sec11 purchase	0.00	-
4	Non –solar Short-Term purchase from RE sources under Sec 11 of EA, 2003	-	-
5	Non-solar RE purchased at APPC	5.77	2.06
6	Non-solar RE pertaining to green energy sold to consumers under green tariff	-	-
7	Non-solar RE purchased from other ESCOMs	-	-
8	Non-solar RE sold to other ESCOMs	-	-
9	Non-solar RE purchased from any other source like banked energy purchased at 85% of Generic tariff	-	-
10	Total Non-Solar RE Energy Purchased	533.33	205.17
11	Non-Solar RE accounted for the purpose of RPO including Excess solar	650.29 (527.26+122.73)	272.10 (203.11+68.99)
12	Non-solar RPO complied in % [No.11/No.1]*100	12.25	-

TABLE-4.9

b. Solar RPO Compliance:

No.	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase quantum from all sources excluding hydro sources	5.308.99	2.828.97
2	Solar energy purchased under PPA route at Generic tariff including solar energy purchased from KPCL	220.43	120.95
3	Solar energy purchased under Short-Term, excluding Sec11 purchase	0	0
4	Solar Short-Term purchase from RE under Sec 11 of EA, 2003	0	0
5	Solar energy purchased under APPC	0	0
6	Solar energy pertaining to green energy sold to consumers under green tariff	0	0
7	Solar energy purchased from other ESCOMs	0	0
8	Solar energy sold to other ESCOMs	0	0
9	Solar energy purchased from NTPC (or others) as bundled power	48.30	30.11
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff	-	-
11	Total Solar Energy Purchased	268.73	151.06
12	Solar energy accounted for the purpose of RPO	145.99	82.07
13	Solar RPO complied in % [No.12/No.1]*100	2.75	-

As per the APR, the Commission has approved power purchase quantum of 5442.60 MU, excluding procurement from hydro sources, based on the audited accounts. The details of Non-solar energy procured is indicated in the following Table:

Energy in Million Units

Co-generation (Power Purchase)	184.61
Mini Hydel	165.67
Wind power project incl. KPCL	197.50
Bio mass	12.96
Shimsha	0.00
Less Previous year FY17 adjustment as per TO 2018	-27.41

Less: Carry Forward of FY17	-40.02
Less: energy purchased under APPC	-5.77
Banked energy purchased	0.00
Non-solar - Total	**487.54**

Regarding the Non-Solar RPO, considering the input energy (excluding procurement from hydro sources) of 5,442.60 MU (6,864.23-11.65-1,409.98), the Non-solar RPO target at 11% works out to 598.68 MU. CESC has purchased 487.54 MU of Non-solar energy. The Commission had considered the entire 27.41 MU Non-Solar energy purchased during April & May, 2017, for meeting the shortfall in Non-solar RPO of FY17, as the prevailing Regulations specified that any obligated entity may meet its RPO for any financial year before 31st May of the immediate following financial year, which is deducted as indicated in the table above. Similarly, carry forward 40.02 MU and 5.77 MU under APPC is also deducted. Thus, there is a shortfall of 111.14 MU in meeting the Non-solar RPO. As per the KERC (Procurement of Energy from Renewable Sources) (Fifth Amendment) Regulations, 2017, the shortfall in meeting the non-solar RPO could be set off against excess solar energy purchased. Hence, the Commission decides to set off the entire shortfall of 111.14 MU against the excess Solar energy of 119.06 MU purchased. **Therefore, the Commission holds that CESC has met its Non-Solar RPO target of 11% for FY18, in terms of the prevailing Regulations.**

Regarding the Solar RPO, considering the input energy (excluding procurement from hydro sources) of 5,442.60 MU, the Solar RPO target at 2.75% works out to 149.67 MU. CESC has purchased Solar energy as indicated below:

Million Units

NTPC NSM Solar Bundled Power*	13.86
Solar Roof Top (DSM)	4.90
Solar NTPC VVNL Bundled Power*	34.44
Solar KREDL	49.65
Solar(other than KPC)	165.88
Solar Total	**268.73**

****As per e-mail dated 21.01.2019, CESC has clarified that, in the source-wise power purchase details furnished in response to preliminary observations, the NTPC bundled Power indicated as 65.40 MU includes 13.86 MU of solar energy and 51.54 MU of Coal energy and in the solar new park 76.64 MU includes 34.44 MU of solar energy and 42.20 MU of Coal energy, which is reckoned.***

Thus, CESC has purchased 119.06 MU excess of solar energy beyond the target specified. **Therefore, the Commission holds that CESC has met its Solar RPO target of 2.75% for FY18, in terms of the prevailing Regulations.**

4.2.5 Operation and Maintenance Expenses:

CESC's Submission:

CESC, in its application, as per its audited accounts, has requested to approve O&M expenses of Rs.550.07 Crores for FY18. The break-up of O&M expenses, are indicated in the following Table:

TABLE – 4.10
O & M Expenses – CESC's submission

Rs. Crores

Particulars	FY18
Employee cost	415.70
Administrative & General Expenses	83.98
Repairs and Maintenance	50.39
Total O & M Expenses	**550.07**

Commission's analysis and decisions:

The Commission in its Tariff Order dated 11th April, 2017 had approved the revised O&M expenses by including the contribution to the P&G Trust for FY18 as detailed below:

TABLE – 4.11
Approved O&M Expenses as per Tariff Order dated 11.04.2017

Particulars	FY18
No. of installations as per actuals as per Audited Accounts	30,83,428
Weighted Inflation Index	7.71%
CGI based on 3 Year CAGR	4.07%
Actual O&M expenses for FY16- in Rs. Crores.	418.48
Total approved O&M Expenses for FY18 in Rs. Crores.	**503.63**

CESC in its APR filing, had claimed an amount of Rs.415.70 Crores as employee cost for FY18 without giving the basis for computation of O&M expenses. The CESC, in its audited account for FY18 under note 29.6.6 has noted that the pay scale revision to its employees has been given effect to. Hence, the Commission in its preliminary observations had directed the

CESC to furnish the actual amount of pay revision arrears paid to the employees for the period from 01.04.2017 to 31.03.2018 and included in the audited account for FY18.

CESC in their replies have informed that, the actual amount paid towards pay revision arrears is Rs.51.85 Crores and Rs.7.68 Crores towards contribution to P&G trust on the pay revision amount for the period from 01.04.2017 to 31.03.2018.

Similarly, CESC in its filings of APR for FY18 had claimed Rs.68.54 Crores, towards contribution to P&G Trust towards terminal benefits under employee cost. Hence CESC was directed to furnish the computation sheet for the same along with the relevant Actuarial Valuation Report.

CESC with respect to the terminal benefits has furnished the copy of the order issued by the KPTCL and ESCOMs' Pension and Gratuity Trust, which is appropriately considered.

The Commission notes that, the actual O&M expenses claimed by CESC at Rs.550.07 Crores for FY18 is more than the approved O&M expenses of 503.63 Crores by Rs.46.44 Crores. The Commission notes the replies furnished and the increase in the O&M expenses than the approved amount and directs CESC to take action to minimize these controllable expenses in future so as to bring down the O&M expenses within the approved amounts.

The Commission, in accordance with the provisions of the MYT Regulations and the methodology adopted, while approving the ARR for FY18 and earlier APRs, proceeds with the determination of normative O&M expenses based on the 12 Year data of WPI and CPI besides considering 3-year compounded annual growth rate (CAGR) of consumers. 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 rate of inflation for FY18 is computed as follows:

TABLE-4.12
Inflation to be allowed for FY18

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
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
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	231.196	2.06	0.72	9	6.49
2016	110.3	274.3	241.5	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							3,036.00
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 FY18, the Commission has considered the following:

a) The actual O & M expenses as per the audited accounts for FY16 as the base year O&M expenses and the approved normative O&M expenses for FY17 excluding contribution to Pension and Gratuity Trust.

b) 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 at 3.80%.

c) The weighted inflation index (WII) at 8.276% as computed above.

d) Efficiency factor at 2 % as considered in the earlier control periods.

Thus, the normative O & M expenses for FY18 will be as follows:

TABLE – 4.13
Normative O & M Expenses for FY18

Amount in Rs. Crores

Particulars	FY18
No. of Consumers as per audited accounts	30,59,822
Compounded Annual Growth rate in % (CAGR) of No. of Installations as per actuals / projections	3.80%
Inflation Index in %	8.2760%
Base Year O&M Cost (FY16 as per actuals) without P&G contribution	354.10
Approved normative O&M expenses without P&G contribution for FY17	389.89
Allowable Normative O&M Index= 0&M (t-1)*(1+WII+CGI-X)	429.18

The above normative O & M expenses have been computed without considering the contribution to the Pension and Gratuity Trust and pay revision arears paid in FY18.

The Commission also notes the CESC's reply for having included Rs.59.53 Crores as an additional employees cost for FY18. CESC in its replies has submitted that out of Rs.59.53 Crores of additional employee cost, Rs.51.85 Crores being the provision made for the payment of arrears of revision of pay payable from 01.04.2017 to 31.03.2018 which is included under salary head of account under employee cost and Rs.7.68 Crores towards contribution of terminal benefit to P&G trust on the pay revision amount and revision of contribution rates as per the Actuarial Valuation Reports.

The Commission notes the revision of pay to the employees of KPTCL / ESCOMs with effect from 01.04.2017 and the consequential additional employees cost thereon. Accordingly, the Commission decides to considers the additional employee cost on account of pay revision for Rs.51.85 Crores being included under employee cost in the audited accounts of CESC for FY18 as an additional O&M cost for FY18. The Commission also considered additional contribution to P&G trust on the revision of pay for Rs.7.68 Crores which is already included under terminal benefits in allowing the O&M expenses for FY18. CESC as per audited accounts has booked the total amount Rs.68.54 Crores towards terminal benefit contribution to P&G Trust for FY18. Thus the Commission as per the provision of MYT Regulations decides to treat the employee cost on account of contribution to P&G Trust towards terminal benefit as uncontrollable O&M expenses.

The Commission has treated the employee costs on account of contribution to P&G Trust and pay revision arears amount as uncontrollable O&M expenses for FY18. This component has been allowed beyond the normative O&M expenses to enable the ESCOMs to meet their actual employee costs.

The Commission has been continuously in its earlier orders stressing the need to control the controllable O&M expenses. The Commission is of the view that any revision of pay scale should reflect in improved productivity and efficiency for the betterment of services rendered by the CESC to the consumer of the State. As per the decision of the Commission in the similar situation in the earlier Tariff Order, the CESC is required to justify any increase in pay scale with commensurate increase in real employee productivity.

Thus, the allowable O&M expenses for FY18 are as follows:

TABLE – 4.14

Allowable O & M Expenses for FY18

Rs. Crores

Sl. No.	Particulars	FY18
1	Normative O & M expenses	429.18
2	Additional employee cost (contribution to P&G Trust)	68.54
3	Additional employee cost on account of pay revision	51.85
	Total Allowable O&M expenses for FY18	**549.57**

Thus, the Commission decides to allow an amount of Rs.549.57 Crores as O&M expenses for FY18.

4.2.6 Depreciation:

CESC's Submission:

CESC, in its application has claimed an amount of Rs.182.92 Crores as depreciation as per the audited accounts for FY18. Further, an amount of Rs.53.93 Crores towards the depreciation on account of assets created out of consumers' contributions / grants as per Accounting Standards (AS) – 12, is considered under Other Income as per the Audited Accounts for FY18. Thus the net amount of depreciation claimed by the CESC in its tariff application is Rs.128.99 Crores for FY18.

The asset-wise depreciation claimed by the CESC is as follows:

TABLE – 4.15

Depreciation for FY18- CESC's Submission

Rs. Crores

Particular	Opening Balance of Asset as on 01.04.2017	FY18	
		Depreciation	Closing Balance of Asset as on 31.03.2018
Buildings	78.81	2.89	94.99
Civil	2.44	0.13	2.84
Other Civil	0.97	0.04	1.15
Plant & M/c	685.91	43.22	813.07
Line, Cable Network	2,318.21	129.54	2,765.10
Vehicles	4.33	0.14	5.72
Furniture	11.91	1.62	35.26
Office Equipment	24.95	0.89	26.33
Intangible assets	10.16	4.46	21.31
Total	**3,137.69**	**182.92**	**3,765.78**

Commission's analysis and decisions:

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail Sale of Electricity) Regulations, 2006 and amendments thereon, the depreciation for FY18 has been determined by the Commission, duly considering the opening and closing balances of gross blocks of fixed assets for FY18 and the depreciation as per audited accounts. Accordingly, the weighted average rate of depreciation works out to 5.30%. Further, as per the Accounting Standards (AS)–12, an amount of Rs.53.93 Crores of depreciation on assets created out of consumer contribution / grants accounted under Other Income has been factored in and deducted from the gross depreciation for FY18. The details are as shown below:

TABLE-4.16

Allowable Depreciation for FY18

Amount in Rs. Crores

Particular	Opening Balance of Asset as on 01.04.2018	FY18	
		Depreciation	Closing Balance of Asset as on 31.03.2018
Buildings	78.81	2.89	94.99
Civil	2.44	0.13	2.84
Other Civil	0.97	0.04	1.15
Plant & M/c	685.91	43.22	813.07
Line, Cable Network	2,318.21	129.54	2,765.10
Vehicles	4.33	0.14	5.72
Furniture	11.91	1.62	35.26
Office Equipment	24.95	0.89	26.33
Intangible assets	10.16	4.46	21.31
Total	**3,137.69**	**182.92**	**3,765.78**
Less: Depreciation on assets created out of Consumer contribution / Grants	-	-53.93	-
Net Allowable Depreciation		**128.99**	

Thus, the Commission decides to allow the net depreciation of Rs.128.99 Crores for FY18.

4.2.7 Capital Expenditure:

The CESC, in its application for APR for FY18, has indicated a capital expenditure of Rs.535.18 Crores. The capital expenditure of Rs.535.18 Crores for FY18 is against the Commission approved capex of Rs.552.00 Crores for the FY18. The CESC has furnished the breakup of category-wise expenditure of Rs.535.18 Crores for FY18 as shown in the following Table:

TABLE 4.17

Capital expenditure of the CESC for FY18

No	Schemes	As approved in MYT filing for FY18 (Rs. in Crore)	Actual expenditure (Rs. in Crore)	% of Budget utilized

No	Schemes	As approved in MYT filing for FY18 (Rs. in Crore)	Actual expenditure (Rs. in Crore)	% of Budget utilized
1	Extension & improvement	230.00	66.35	28.85%
2	NJY	40.00	117.69	294.22%
3	HVDS	0.00	0.00	-
4	R-APDRP	25.00	105.87	423.48%
5	IPDS	50.00	17.93	35.86%
6	DDUGJY	100.00	3.52	3.52%
7	RGGVY(Restructured)+DDG	0.00	8.78	-
8	Replacement of failed Transformers	5.00	1.58	31.66%
9	Service Connections	40.00	142.89	357.23%
10	Rural Electrification(General)			
A	Electrification of Hamlets/HB/JC under RGGVY	34.00	19.62	57.70%
B	Providing infrastructure to Irrigation Pump sets & energization of IP SETS			
C	Kutir Jyothi(RGGVY)			
11	Tribal Sub Plan			
A	Electrification of Tribal Colonies (RGGVY)	2.00	2.00	100.00%
B	Energisation of IP sets			
C	Kutir Jyothi (RGGVY)			
12	Special Component Plan			
A	Electrification of HB/JC/AC(RGGVY)	7.00	7.00	100.00%
B	Energisation of IP sets			
C	Kutir Jyothi(RGGVY)			
13	Tools & Plants	4.00	7.90	197.47%
14	Civil Engineering Works	5.00	17.36	347.16%
15	Providing Meters to DTC, BJ/KJ, Street Light for replacement of electro-mechanical meters, providing modems to meters for communication	10.00	7.03	70.29%
16	Software Development and smart grid project	0.00	9.68	-
Total		**552.00**	**535.18**	-

Commission's Analysis and Decision:

In the Tariff Order 2017, the Commission had approved capex of Rs.552.00 Crores to be incurred by the CESC for FY18. Now, the CESC has indicated a capital expenditure of Rs. 535.18 Crores.

The Commission in its preliminary observations had requested the CESC to explain the reasons for a) exceeding the approved capex in some of the works which include, NJY, R-APDRP, Tools & Plants, Civil Engineering Works. b) Not achieving the capex in respect of Extension & Improvement works, IPDS, DDUGJY, Replacement of failed Transformers, Rural Electrification and Providing meters DTC BJ/KJ etc. c) Incurring capital expenditure for RGGVY and software Development and smart grid project, which were not included in the Capex. The Commission notes that, the works including the works for which capex is not incurred, includes works to be taken up with grants, own fund, loan and internal resources. Each scheme/project will have its individual objectives defined before they are planned for execution. The CESC has not furnished the reasons satisfactorily.

Further, the Commission had directed CESC to furnish the details of sources of funding (like grants, debt, equity and internal sources) for the capex incurred during the FY18, against each of the categories of works. The same being submitted, however, the sum total Grants of Government for 2017-18, Fresh barrowings and Internal resources is stated to be Rs.602.49 Crores which is far in excess of the capital expenditure of Rs 535.18, incurred for FY18 of Crores. Thus the Commission notes that CESC is not properly monitoring the capex with reference the loans, grants and internal sources.

The Commission, after reviewing the capex achieved by CESC for FY18, and the explanations furnished, decides to allow the capex of Rs. 535.18 Crores subject to submission of physical and financial progress along with time lines in respect of the above said works and explanation on difference encountered in funding within a month from the issue of this Order. The Commission has entrusted the work of carrying out prudence check of capital expenditure for FY17 & FY18 to the Consultants. On receipt of final

report in this regard, the Commission will take a view on disallowance of the costs associated with imprudent works.

4.2.8 Interest and Finance Charges:

a) Interest on Capital loan:

CESC's Submission:

CESC in its filing has claimed an amount of Rs.111.19 Crores as against the approved amount of Rs.131.41 Crores towards interest on capital loans drawn from Banks/Financial Institutions for FY18 and requested the Commission to approve the same. Considering the opening balance of loans, new borrowings, repayment and the closing balance of capital loan amount, the weighted average of the interest on capital loans claimed by CESC works out to 10.53%.

Commission's analysis and decisions:

The Commission notes the loan portfolios of CESC as per the audited accounts of CESC for FY18.

Accordingly, the Commission in its preliminary observations had directed CESC to submit the Bank / Financial Institution-wise loan details, including the opening balance, receipt, repayment, term of loan, rate of interest, purpose of loan, interest amount by considering the amount of current maturities of long term debt, the closing balance of loans, in the D9 format for long term loans for FY18, duly tallying to the audited accounts figure and the actuals up to November,2018.

CESC in its replies has furnished the details, which is appropriately considered by the Commission.

The Commission has noted the status of opening and closing balances of capital loans as per the audited accounts for FY18, the details furnished under format D9 of the filings and the replies to the preliminary observations and accordingly has computed the interest on capital loans as shown in the following table:

TABLE – 4.18

Allowable Interest on Capital Loans – FY18

Amount in Rs. Crores

Particulars	FY18
Long term secured & unsecured loans	938.27
Add: new Loans	336.50
Less: Repayments	-101.80
Total loan at the end of the year	1,172.97
Average Loan	**1,055.62**
Interest on long term loans	111.19
Weighted average rate of interest on long term loans in %	10.53%

As per the audited accounts of CESC for FY18, the actual interest on the capital loans is Rs.111.19 Crores. Considering the average loan of Rs.1055.62 Crores, the weighted average rate of interest works out to 10.53%. Considering the rate of interest at which the capital loan barrowed by CESC as indicated in the audited accounts it is noted that, the actual weighted average rate of interest is comparable with the prevailing rate of interest for long term loans.

Thus, the Commission decides to allow an amount of Rs.111.19 Crores towards interest on capital loans for FY18.

4.2.9 Interest on Working Capital:

CESC's Submission:

CESC in its application has stated that it has raised short term loans and overdrafts from the Commercial Banks to meet its day to day expenditure (working capital) during FY18. As per the audited accounts, CESC has incurred an amount of Rs.60.33 Crores towards interest on short term loans /

overdrafts during FY18 and has sought approval of the Commission for the same.

Commission's analysis and decisions:

The Commission in its preliminary observations had directed CESC to submit the Bank / Financial Institution-wise short term and overdraft details, including the opening balance, receipt, repayment, term of loan, rate of interest, purpose of loan, interest amount and the closing balance of loans, for FY18 and the actuals up to November,2018.

CESC in its replies has furnished the details, which is appropriately considered by the Commission.

The Commission notes that, the rate of interest at which the short term loan and the overdraft availed by CESC during FY18 and considering the rate of interest charged by the Banks/Financial Institutions for the short term loan, the Commission decides to allow the interest on working capital loan at 11.00%

Considering the interest rate of 8.16% to 12.75% at which the short term loans and overdraft availed by CESC during FY18, the Commission directs CESC to avail the loan in future at a competitive reduced rates to avoid burden to the consumers.

As per the KERC (Terms and Conditions for Determination of Tariff Distribution and Retail Sale of Electricity) Regulations, 2006 and amendments thereon, the Commission has computed the allowable interest on working capital for FY18 is indicated in the following Table:

TABLE – 4.19
Allowable Interest on Working Capital for FY18

Amount in Rs. Crores

Particulars	FY 18
One-twelfth of the amount of O&M Expenses	45.80
Opening GFA as per Audited Accts	3141.10
Stores, materials and supplies -1% of Opening balance of GFA	31.41
One-sixth of the Revenue	612.66
Total Working Capital	689.87

Rate of Interest (% p.a.)	11.00%
Normative Interest on Working Capital	**75.89**
Actual interest on WC as per audited accounts	**60.33**
Allowable Interest on Working Capital	**68.11**

The Commission therefore decides to allow an amount of Rs.68.11 Crores towards interest on working capital for FY18.

4.2.10 Interest on Consumer Deposits:

CESC's Submission:

CESC in its filing has claimed an amount of Rs.38.02 Crores towards payment of interest on consumers' security deposits for FY18 as per the audited accounts and sought approval of the Commission for the same.

Commission's analysis and decisions:

The Commission in its preliminary observation had directed CESC to furnish the computation sheet for having claimed the interest on consumer security deposit for FY18 and for FY20-22.

CESC in its replies has furnished the above information for FY20-22.

The Commission as per the audited accounts has taken note of the opening and closing balances of consumer security deposit for FY18. Based on the average amount of consumer security deposits, the interest on consumer security deposits as per audited accounts amounting to Rs.38.02 Crores has been claimed by CESC. As per the KERC (Interest on Security Deposit) Regulations, 2005, the interest on consumer deposits shall be allowed as per the bank rate prevailing on the 1st day of April of the relevant year. The bank rate as on 1st day of April, 2017 was 6.75%. The allowable interest on consumer security deposits, by reckoning the amount of Consumers' Security Deposit as per the audited accounts, is as follows:

Table No: 4.20

Allowable Interest on Consumer Security Deposit for FY18.

Amount in Rs. Crores

Particulars	FY18

Opening balance of consumer deposits	521.16
Closing Balance of consumer deposits	600.85
Interest Claimed as per audited accounts	38.02
Allowable Rate of Interest	6.75%
Allowable Interest on consumer deposit	**38.02**

Thus, the Commission decides to allow an amount of Rs.38.02 Crores towards interest on consumer security deposits for FY18.

4.2.11 Other Interest and Finance charges:

CESC has claimed an amount of Rs.1.19 Crores towards other interest and finance charges paid to banks / financial institutions to raise the loans for FY18. The Commission as per the audited accounts decides to allow Rs.1.20 Crores as other interest and finance charge for FY18.

4.2.12 Interest on belated payment of Power Purchase Cost:

CESC in its filing has claimed an amount of Rs.26.63 Crores towards interest on belated payment of power purchase bill amount.

The Commission notes that, as per the audited accounts, the CESC has incurred an amount of Rs.26.63 Crores towards Interest on belated payment of Power Purchase dues for FY18. The Commission has been consistently allowing the interest on working capital loans as per the norms under MYT Regulations to meet the day to day expenses. Hence, there is no justification for the delay in arranging payments towards power purchase bills and incurring interest on power purchase dues. The Commission directs the CESC that in future, it should settle the power purchase bills of the generators, by availing working capital loans and avoid payment of interest there on.

Thus the Commission has not allowed the interest on belated payment of power purchase bills claimed by CESC for FY18.

4.2.13 Capitalization of Interest and finance charges:

CESC in its filing and as per the audited accounts for FY18 has capitalized interest of Rs.5.08 Crores incurred on availing capital loans during FY18. The Commission has considered the same for computation of APR for FY18.

Thus the allowable interest and finance charges for FY17 are indicated in the following Table:

TABLE – 4.21

Allowable Interest and Finance Charges for FY18

Amount in Rs. Crores

Sl. No.	Particulars	FY18
1.	Interest on Loan capital	111.19
2.	Interest on working capital loan	68.11
3.	Interest on consumer deposits	38.02
4.	Interest on Power Purchase dues	0.00
5.	Other interest and finance charges	1.20
6.	Less: Interest and other finance charges capitalized	-5.08
	Total interest and finance charges	**213.44**

4.2.14 Other Debits:

CESC's Submission:

CESC has claimed an amount of Rs.14.78 Crores towards Other debits for FY18 as detailed below:

TABLE – 4.22
Other Debits for FY18- CESC Submission

Amt. in Rs. Crores

Sl. No.	Particulars	FY18
1.	Small and low value items written off	0.12
2.	Loss / gains relating to scraped assets	0.68
3.	Assets decommissioning cost	0.55
4.	Bad debts written off	0.54
5.	Provision for Bad & Doubtful Debts for dues from consumers	6.53
6.	Provision for Bad & Doubtful Debts for dues from others	4.16
7.	Miscellaneous losses and Written off	2.20
	Total	**14.78**

Commission's analysis and decisions:

The Commission has taken note of the items of expenditure under other debited accounted as per the audited account for FY18. As per the provisions of MYT Regulations, the allowable Other debits by excluding the provision for bad and doubtful debts for FY18, are indicated in the following Table:

TABLE – 4.23
Allowable Other Debits

Rs. Crores

Sl. No.	Particulars	FY18
1	Small and Low value items written off	0.1232
2	Losses relating to fixed assets	0.6756
3	Assets decommissioning cost	0.5497
4	Miscellaneous losses and write offs	2.1986
5	Bad debts written off excluding provisions	0.5341
	Total	**4.08**

Thus, the Commission decides to consider an amount of Rs.4.08 Crores as other debits for FY18.

4.2.15 Net Prior Period Debit / Credit:

CESC's Submission:

CESC, in its filings has claimed the net Prior Period expenses (debit) of Rs.54.37 Crores for FY18.

Commission's analysis and decisions:

As per the Audited Accounts for FY18, the prior period expenses/ losses are indicated as Rs.70.48 Crores on account of short / under provisions of power purchase cost, depreciation, employees cost, A&G expenses, interest and finance charges, material related expenses and other expenses of the previous years. Further the prior period income of Rs.16.12 Crores is on account of receipts from consumers, excess provision of depreciation, interest & finance charges, other income relating to prior period and other excess provisions in the previous periods. As per the provision of MYT

Regulations, the allowable net prior period charges (Debit) is Rs.54.37 Crores for FY18.

Thus, the Commission decides to allow a net prior period expenses (debit) of Rs.54.37 Crores for FY18.

4.2.16 Return on Equity:

CESC's Submission:

CESC in its filing has not claimed any Return on Equity for FY18.

Commission's analysis and decisions:

i. **Debt – Equity Ratio Vis –a –Visa GFA:**

The Commission notes the opening and closing balances of gross fixed assets along with break-up of equity and loan component and the details of GFA, debt and equity (net-worth) for FY18 as per the actual data as per the audited accounts are indicated in the following Table:

TABLE – 4.24
Status of Debt Equity Ratio for FY18

Rs. Crores

	GFA (Actuals)	Debt (Actuals)	Equity (Net-worth) (Actuals)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	%age of actual debt on GFA	%age of actual equity on GFA
Opening Balance	3,141.10	938.27	25.03	2,198.77	942.33	29.87	0.80
Closing Balance	3,769.54	1,172.97	159.94	2,638.68	1130.86	31.12	4.24

From the above table it is seen that the debt and equity amounts are within the normative debt and equity ratio reckoned on the basis of the opening and closing balances of GFA for FY18.

ii. **ROE Allowable:**

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereon, the allowable Return on Equity at 15.5% has to be computed on the equity plus the accumulated balance of profit/loss under Reserves & Surplus account as per the audited accounts as at the beginning of the year and also factoring recapitalization of security deposit amount in compliance with the Orders of the Hon'ble ATE in Appeal No.46/2014. Accordingly, the total net-worth at the beginning of FY18 is 25.03 Crores and hence, RoE allowable is as detailed below:

TABLE – 4.25

Allowable Return on Equity

Amount Rs. Crores

Particulars	FY18
Paid Up Share Capital	508.57
Share deposit	152.29
Reserves and Surplus as on 01.04.2016	-612.82
Recapitalization of Consumers' security deposit	-23.00
Total Equity	25.03
Allowable RoE @ 15.50%	**3.88**

Further, it is noted that as reported by CESC and as per the audited accounts, an additional equity of Rs.147.15 Crores has been received during the year in different dates from the State Government. Considering the actual dates of receipt of the additional equity, the Commission as per the provision of MYT Regulations has determined the allowable return on additional equity as detailed below:

TABLE – 4.26

RoE on additional Equity received during the year FY18

Additional Equity received during FY18	Amount in Crs	Received on	No. of Months	RoE allowed Rs. Crores
EN 40 PSR 2017 dated 05.05.2017	30.00	18.05.2017	10	3.88
EN 2 PSR 2017 dated 03.05.2017	5.01	16.05.2017	10	0.65
EN 25 PSR 2017 /P2 dated 23.06.2017	1.98	5.07.2017	8	0.20
EN 40 PSR 2017 dated 28.07.2017	30.00	12.08.2017	7	2.71
EN 25 PSR 2017 /P2 dated 28.07.2017	1.98	12.08.2017	7	0.18
EN 2 PSR 2017 dated 16.10.2017	5.01	03.11.2017	4	0.26
EN 40 PSR 2017 dated 16.10.2017	30.00	03.11.2017	4	1.55
EN 25 PSR 2017 /P2 dated 16.10.2017	1.98	03.11.2017	4	0.10
EN 2 PSR 2017 / dated 16.10.2017	5.01	03.11.2017	4	0.26
EN 40 PSR 2017 dated 20.01.2019	30.00	02.02.2018	1	0.39
EN25 PSR 2017/P2 dated 20.01.2018	1.16	03.02.2018	1	0.01
EN 2 PSR 2017 / dated 20.01.2018	5.02	02.02.2018	1	0.06
TOTAL	**147.15**			**10.26**

Return on Equity allowed on Additional Equity Infusion in FY18	**10.26**

Considering, the additional equity received during 2017-18, RoE works out to Rs. 10.26 Crores.

Thus, the Commission decides to allow total Return on Equity of Rs.14.14 Crores for FY18.

4.2.17 Income Tax:

CESC in its filing as per audited account an amount of rs.1.63 Crores as increase tax for FY18.

Commission's analysis and decisions:

The Commission notes that as per audited accounts CESC has the accounted an amount of Rs.2.8238 Crores as current tax, Rs.0.5231 Crores as short provision of income tax for the previous year and the credit balance of Rs.1.7121 Crores as the deferred tax liability for FY18.

Thus the Commission decides to allow the net income tax of Rs.1.63 Crores as income tax for FY18.

4.2.18 Other Income:

CESC's Submission:

CESC in its application has claimed an amount of Rs.99.62 Crores as Other Income for FY18.

Commission's analysis and decisions:

The Commission notes the various items of other income earned by the CESC as per the audited accounts for FY18. As per the audited accounts, Rs.167.29 Crores is indicated as other income for FY18. This includes income from sale of scrap, income from rent, rebate for collection of electricity duty, delayed payment charges from consumers, income relating to prior period, withdrawal of depreciation charged on consumer contribution / grants, as per Accounting Standards - 12 and miscellaneous recoveries. The delayed payment charges from consumers amounting to Rs.51.56 Crores, included under other income, is considered as revenue from sale of power and miscellaneous charges and, an amount of Rs.16.12 Crores of income relating to prior period is factored and accounted under the head 'prior period debit/credit' and an amount of Rs.53.93 Crores depreciation withdrawn on the assets created out of consumer contribution and grants as per Accounting Standards-12 is factored under depreciation head.

Thus, the Commission decides to allow an amount of Rs.45.68 Crores as other income for FY18.

4.2.19 Fund towards Consumer Relations / Consumer Education:

The Commission has been allowing an amount of Rs.0.50 Crore per year towards consumer relations / consumer education. CESC in its filing has not claimed any expenditure for FY18. The Commission, as per the audited account notes that an amount of Rs.1.19 Crores has been incurred towards Consumer Relations / Consumer Education for FY18. Thus the Commission decides to approve Rs.0.50 Crores as the expenses towards consumer relation / education by factoring the excess expenses of Rs.0.69 Crores under O&M expenses for FY18.

4.2.20 Revenue for FY18:

The CESC, in its application as per the audited accounts has considered Rs.3675.94 Crores as revenue from sale of power from consumers and miscellaneous charges for FY18.

The Commission noted that CESC as per the audited accounts has earned Rs.3624.39 Crores as the revenue from sale of power and miscellaneous charges for FY18. Further, the delayed payment charges from consumers of Rs.51.56 Crores included under other income item has been recognized as revenue from sale of power.

Accordingly, the Commission decides to consider Rs.3675.95 Crores as revenue from sale of power to consumers and miscellaneous charges in approving the revised ARR as per APR of CESC for FY18.

4.2.21 Revenue and Subsidy for FY18:

The Commission in its Tariff Order dated 11th March, 2017 has approved tariff subsidy of Rs.1344.92 Crores towards sale of power to BJ/KJ and IP sets for FY18 in accordance with the prevailing Government Order. **The Commission in computation of APR for FY18 has approved the revised tariff subsidy of Rs.1435.37 Crores towards sale of power to BJ/KJ and IP set installations for FY18.**

The difference of Rs.90.45 Crores in the originally approved Tariff subsidy as per ARR for FY18 and the Tariff subsidy computed as per APR of FY18 is payable by the GoK to the CESC.

4.3 Abstract of Approved ARR for FY18:

As per the above item-wise decisions of the Commission, the consolidated Statement of revised ARR for FY18 is as follows:

TABLE – 4.27
Approved revised ARR for FY18 as per APR

Rs.in Crores

Sl. No	Particulars	APR FY18		
		As approved 11.04.2017	As filed 30.11.2018	As per APR
1	Energy at Gen Bus-MU	6,972.30	6,864.23	6,864.23
2	Transmission Losses in %	3.37%	2.68%	2.69%
3	Energy at Interface in MU	6,737.33	6,680.00	6,679.50
4	Distribution Losses in %	13.00%	13.20%	13.20%
5	**Sales in MU**			
	Sales to other than IP & BJ/KJ	3,368.54	3,136.12	3,165.73
	Sales to BJ/KJ	106.17	121.84	92.23
	Sales to IP	2,386.77	2,540.15	2,540.15
	Total Sales	**5,861.48**	**5,798.11**	**5,798.11**
6	**Revenue in Rs. Crs**			
	Revenue from tariff and Misc. Charges	2,276.66	2,210.02	2,240.57
	Tariff Subsidy to BJ/KJ	65.61	76.72	60.90
	Tariff Subsidy to IP	1,279.31	1,389.20	1,374.47
	Total Revenue	**3,621.58**	**3,675.94**	**3,675.95**
	Expenditure in Rs. Crs			
7	Power Purchase Cost	2,051.76	2,655.35	2,655.35
	Transmission charges of KPTCL	301.47	304.04	304.04
	SLDC Charges	3.14	3.15	3.14

Sl. No	Particulars	APR FY18		
		As approved 11.04.2017	As filed 30.11.2018	As per APR
	Power Purchase Cost	**2,356.37**	**2,962.54**	**2,962.54**
8	Employee Cost		415.70	
	Repairs & Maintenance		50.39	
	Admin & General Expenses		83.98	
	Total O&M Expenses	**503.63**	**550.07**	**549.57**
9	Depreciation	116.83	182.92	128.99
10	**Interest & Finance charges:**			
11	Interest on Loans	131.41	111.19	111.19
12	Interest on Working capital	69.23	60.33	68.11
13	Interest on belated payment on PP Cost	0.00	26.63	0.00
14	Interest on consumer deposits	35.40	38.02	38.02
15	Other Interest & Finance charges	0.52	1.19	1.20
16	Less interest capitalized	-24.00	-5.08	-5.08
	Total Interest & Finance charges	**212.56**	**232.28**	**213.44**
17	Other Debits	0.00	14.78	4.08
18	Net Prior Period Debit/Credit	0.00	54.37	54.37
19	Return on Equity	0.00	0.00	14.14
20	Income Tax	0.00	1.63	1.63
21	Funds towards Consumer Relations/Consumer Education	0.50	0.00	0.50
22	Other Income	-59.48	-99.62	-45.68
	ARR	**3,130.40**	**3,898.97**	**3,883.57**
23	Deficit for FY16 carried forward	492.73	0.00	0.00
24	Disallowance of capex on account of prudence check	-1.55	0.00	0.00
	Net ARR	**3,621.58**	**3,898.97**	**3,883.57**

4.3.1 Gap in Revenue for FY18:

As against an approved ARR of Rs.3621.58 Crores, the Commission, after the Annual Performance Review of CESC, decides to allow a revised ARR of Rs.3883.57 Crores for FY18. Considering the revenue of Rs. 3675.95 Crores, a deficit in revenue, of Rs.207.62 Crores is determined for the year FY18.

The Commission decides to carry forward the deficit of Rs.207.62 Crores of FY18 to the proposed ARR for FY20, as discussed in the subsequent Chapter of this Order.