CESC

Preliminary observations on Application for Approval of APR for the FY17 and ARR for the FY19

I. Annual Performance Review for the FY17:

A. Sales -other than IP Sets:

The Commission in its Tariff Order, 2016, dated 30.03.2016 had approved total sales to various consumer categories at 5966.83 MU as against the CESCs proposal of 6009.80 MU. The Actual sales of the CESC as per the current APR filing [d-2 Format] is 6260.27 MU indicating increase in sales to the extent of 293.44 MU when compared to the approved sales. There is an increase in sales of 589.26 MU in LT-categories and reduction in sales of 295.82 MU in HT-categories. It is noted that, as against approved sales of 3306.72 MUs to categories other than BJ/KJ and IP sets, the actual sales achieved by the CESC is 3081.95 MU, resulting the reduction of sales to these categories by 224.77 MU. Further, the CESC has sold 3178.32 MU to BJ/KJ and IP categories against approved sales of 2660.11 MU resulting in increased sales to these categories by 518.21 MU.

The category wise sales approved by Commission and the actuals for the FY 17 are indicated in the table below:

Energy in Million Units

Category	Approved	Actuals	Difference
LT-2a*	1001.92	1009.86	7.94
LT-2b	8.72	8.97	0.25
LT-3	286.98	274.45	-12.53
LT-4b	1.24	1.02	-0.22
LT-4c	10.96	17.56	6.60
LT-5	141.96	140.59	-1.37
LT-6	153.88	220.22	66.34
LT-6	100.24	103.51	3.27
LT-7	13.55	14.32	0.77
HT-1	473.96	418.24	-55.72
HT-2a	837.72	634.73	-202.99
HT-2b	118.50	117.24	-1.26
HT-2c	44.62	48.07	3.45
HT-3a & b	102.53	66.02	-36.51
HT-4	5.16	3.73	-1.43
HT-5	4.78	3.42	-1.36
Sub total	3306.72	3081.95	-224.77
BJ/KJ	37.72	35.19	-2.53
IP	2622.39	3143.13	520.74
Sub total	2660.11	3178.32	518.21
Grand total	**5966.83**	**6260.27**	**293.44**

*Including BJ/KJ installations consuming more than 18 units/month

The Commission notes that the major categories contributing to the reduction in sales are HT Industries (202.99 MU) and HT Water supply (55.72 MU) and the categories contributing to increase in sales are IP sets (520.74 MU) and LT-Water supply [66.34 MU].

The CESC has attributed the reduction in HT-2a sales to sixteen industries consuming 440.17 MU under Open Access/wheeling. The CESC has also stated that HT-2b consumers and HT-2c consumers have consumed 11.57 MU and 4.52 MU respectively under OA/wheeling in the FY17. Further, the CESC has stated that the increase in sales to LT-water supply is due to servicing of 1813 new installations and providing independent transformers to most of these installations, thereby reducing interruptions.

The Commission has taken note of the above explanations furnished by the CESC. The observations of the Commission on sales for the FY17 are as under:

i. The Number of BJ/KJ installations consuming less than 18 units is indicated as 367500 at page-73 whereas at page 80 it is indicated as 343172. The CESC shall furnish the reconciled figures.
ii. In the case of LT-3 category, even though the number of installations has increased by 711 in the FY17 when compared to the approved figures, the sales have decreased. the CESC shall furnish the reasons for the same.
iii. the CESC has not furnished any explanation for reduction of sales in respect of HT-1 water supply. Therefore, the CESC shall furnish the reasons for reduction thereon.

B. Sales to IP Set:

a. The Commission notes that, the overall sales have increased by 520.74 MU (20%)as against the approved sales of 2,622.39 MU as per the Tariff Order dated 30th March 2016, for the FY17. Further, the variation in sales in the FY17 as compared to the actual sales in the FY16 is a whopping 1,065 MU (51%). The growth rate of sales by 51% in the FY17, is by any standards, huge and abnormal one. **The CESC shall explain with reasons for huge increase of 51% in sales to IP sets for the FY17.**

b. Further, the Commission had approved a specific consumption of IP-sets as 7,843 units / installation / annum for the FY17. As per the consumption reported in the Tariff application, the specific consumption works out to 9,578 units / installation/annum for the FY17. This indicates a huge increase of 1,735 units / installation/annum (20%) in specific consumption for the FY17. It is noted that such increase in specific consumption in the FY17 is abnormal as compared to the previous years. Further, the CESC in its Tariff application has mentioned the specific consumption for the FY17 as 9,280 units/installation/annum and the same needs to be clarified as the specific consumption worked out for the FY17 is 9,578 units/installation/annum.

c. Also, the actual number of installations for the FY17 has decreased by 6,881 to the approved number of installations of 3,45,526. **The CESC should explain and justify with valid reasons as to why the sales have increased by a huge quantum despite number of installations have reduced by 6,881 in the FY17.**

d. During the KPTCL and ESCOM's Review meeting held on 25.10.2017, the CESC has submitted that out of 3,58,018 number of IP sets for which the GPS survey is completed, 5,382 number of IP sets have been declared as not-in-use/dried up installations. Approximately, the same number of IP sets were declared as not-in- use/dried up installations, during the previous year also. That means 5,382 number of installations have to be deducted from the number of installations shown in tariff filing for the FY17 (from April, 2016 to March, 2017). The CESC should clarify this. **If the dried up installations have not been deducted, the CESC shall submit the revised consumption based on the number of installations to be revised for the FY17, taking into account the GPS survey data.**

e. The Commission in its Tariff Order dated 30th March, 2016 had directed the CESC to furnish feeder-wise IP-set consumption based on feeder energy meter data to the Commission, every month in respect of agricultural feeders segregated under NJY. The CESC has submitted the consumption data deducting energy loss at uniform level of 13% in 11 kV, distribution transformers & LT system from the gross consumption to arrive at the net consumption.

However, the CESC is required to revise the IP consumption for the FY17 as per the energy recorded on the segregated feeders clearly indicating the energy input to the feeders on the basis of energy meters reading data **(initial reading-final reading* multiplying constant)**.

f. **The CESC shall furnish month-wise data in support of its claims of IP-consumption for the FY17 duly considering the above issues, as per the format given in the subsequent paras.**

C. Distribution Loss:

1. The actual distribution losses reported by the CESC for the FY17 is 13.10% as against 13.25% approved by the Commission, in its Order dated 30th March, 2016.The actual distribution loss of 13.10% as reported by the CESC for the FY17 is lower by 0.15% than the approved losses. As discussed in the observations on sales to IP Sets, the Commission notes that, there is increase in IP Set consumption and decrease in metered sales in other categories of consumer. The CESC shall furnish the reason for decrease in metered sales and increase in IP Set consumptions despite completion of work of segregation of feeder under NJY.

2. The Commission, in its Order dated 30th March, 2016 has fixed the distribution losses at 13% and 12.75% for the FY18 and the FY19 respectively. The CESC in the present filing has retained the same distribution loss of 13% and 12.75% as approved by the Commission for the FY18 and the FY19 respectively. The CESC, having reported the distribution losses of FY17 is required to furnish its present status of distribution loss achieved in the FY18 as at the end of November, 2017.

3. Considering the substantial capital investment incurred in the recent past and proposed higher Capex for the FY18 and the FY19, and the CESC having achieved the distribution loss levels of 14.33%, 13.88%, 13.60% and 13.10% respectively, during the FY14 to the FY17 respectively, the CESC is required to reassess the distribution losses for the FY18 and the FY19.

Further, the CESC shall furnish the data of Energy Audit for Town and Cities in the following format considering the annual energy sale and input energy at the feeder levels:

Name of the Town/City	the FY17			the FY18 (Cumulative as at the end of Nov, 2017)		
	Energy Input in MU	Energy Sold in MU	% Distribution Losses	Energy Input in MU	Energy Sold in MU	% Distribution Losses
TOTAL						

D. Power purchase:

In respect of the following Hydro and thermal stations of KPCL and UPCL, the cost per unit allowed by the CESC (as per Format D-1) is on a higher side compared to the per unit cost payment made by the BESCOM. The CESC shall furnish the reasons thereof:

Amount in Rupees

Name of the station	Per unit cost paid by the CESC during the FY17	Per unit Cost paid by BESCOM during the FY17
Bhadra Power house	5.29	3.45
Gerusoppa/STRP	2.19	1.314
Kadra	2.74	0.815
Kodasalli	1.98	0.641
Shiva	1.41	0.982
Munirabad	1.00	0.701
BTPS-Unit 1	5.84	4.416
UPCL	4.49	4.11

The Tariff for RTPS unit 1 to 7 is uniform for all the ESCOMs. The differential tariff claimed among these units need to be explained by the CESC and also the per unit cost indicated in D1 format is on a higher side compared to the per unit cost payment made by the BESCOM. The CESC shall furnish the reasons thereof.

Amount in Rupees

Name of the station	Per unit cost paid by the CESC during the FY17	Per unit Cost paid by BESCOM during the FY17
RTPS -1 to 2	4.26	4.066
RTPS 3	4.22	
RTPS 4	4.25	
RTPS 5 & 6	4.20	
RTPS 7	4.22	

E. Capital Expenditure for the FY17:

In the Tariff Order dated 30th March, 2016, the Commission while recognizing the capex at Rs.677 Crores had considered an amount of **Rs.562 Crores** for tariff computation for the FY17. The CESC has indicated a category-wise capital expenditure of Rs.**467.64** Crores in table on page No.95, and also in D17 format. The expenditure capitalized is shown as Rs.**631.19** Crores. The expenditure submitted by the CESC is as shown in the table below:

Capital expenditure of the CESC for the FY17

Amount in Crores

Sl. No.	Schemes	Fy-17 as approved Rs. Crores	Fy-17 actuals Rs. Crores	Difference Rs. Crores
1	Extension & improvement	200.00	189.12	10.88
2	NJY	80.00	127.1	-47.01
3	HVDS	80.00	-	80
4	R-APDRP	40.00	50.91	-10.91
5	RGGVY(Restructured)+DDG	8.00	0.57	7.44
6	Replacement of failed Transformers	4.00	1.2	2.8
7	Service Connections	32.00	47.42	-15.42
8	Rural Electrification(General)			
A	Electrification of Hamlets/HB/JC under RGGVY			
B	Providing infrastructure to Irrigation Pump sets &energisation of IP SETS	50	8.88	41.2
C	KutirJyothi(RGGVY)			
9	Tribal Sub Plan			
A	Electrification of Tribal Colonies (RGGVY)			
B	Energisation of IP sets	3	3	0
C	KutirJyothi (RGGVY)			
10	Special Component Plan			
A	Electrification of HB/JC/AC(RGGVY)			0
B	Energisation of IP sets	10	10	
C	KutirJyothi(RGGVY)			
11	Tools & Plants	4	5.75	-17.5
12	Civil Engineering Works	4	8.91	-4.91
13	Providing Meters to DTC, BJ/KJ, Street Light for replacement of electromechanical meters, providing modems to meters for communication	47	14.88	32.12

Sl. No.	Schemes	Fy-17 as approved Rs. Crores	Fy-17 actuals Rs. Crores	Difference Rs. Crores
	Total	**562.00**	**467.64**	**94.36**

From the table above, it is observed that, the overall capex of the CESC is well within the approved limit of capex for the FY17. However, in some of the categories of works, the CESC has exceeded its capex as shown below:

i. The CESC has exceeded the capex in the case of **NJY scheme** by Rs.47.82 Crores with the approved limit being Rs.80 Crores. The CESC shall furnish the reasons for this excess capex.

ii. In the case of **R-APDRP works**, the CESC has exceeded the approved capex of Rs.40 Crores and incurred Rs.50.9Crores. The CESC shall furnish the reasons for this excess capex.

iii. In the case of **RGGVY(Restructured)+DDG** works, the CESC has failed to achieve the approved capex. The CESC shall analyze the reasons for its poor capex achievement and submit the details.

iv. In the case of **Tools & Plants and Civil Engineering works**, the CESC has achieved Rs.5.75 Crores & Rs.8.91 Crores respectively which are Rs.1.75 Crores & 4.91 Crores in excess of approved capex of Rs.4 Crores each. The CESC needs to be furnish the reasons for this excess capex.

v. In the case of **HVDS Scheme**, the CESC has not at all achieved any capex.

vi. In the case of **Providing infrastructure to Irrigation Pump sets & energization of IP SETS**, the CESC has not achieved less than 20% of the required level of capex. The shall give reasons for not taking up the works and clarify whether, it has already completed all works under this category.

vii. In the case of **Providing Meters to DTC, BJ/KJ, Street Light for replacement of electromechanical meters, providing modems to meters for communication, the** CESC has achieved less than 30% of the approved capex. The CESC shall to furnish reasons for proposing a huge capex and not achieving the same.

II. Observations on ARR for the FY19

A. Sales other than IP sets for the FY18:

The CESC in its filing has stated that for estimating sales for the FY-18 and the FY19, three years or five year CAGR is considered. It is observed that the CAGR has been applied for the half-year data of the FY-18 for estimating the sales for second half of the FY18, which is not appropriate, as the CAGR stands for compounded annual growth rate and is to be applied for annual data and not on half-year data. For the current year, where the half-year data is available, the estimate could be done on prorate basis or considering the actual sales up to 30.09.2016 and estimating the sales for remaining period based on the growth rate of the previous year for the corresponding period.

The observations of the Commission on sales forecast for the control period are as follows:

i) LT(1) – BJ/KJ category:

The CESC has proposed 461735 number of installations under installations consuming up to 40units/month and 34962 installations as consuming more than 40units/month for the FY19. The Commission notes that the CESC has retained the same number of installations consuming up to 40 units/month and more than 40units/month, as on 30.09.2017 for both the previous years namely the FY-18 and the FY-19, stating that break up of data is not available for previous years. The Commission has noted the explanation of the CESC**. It is observed that, though the number of installations has been retained at the FY18 level, the proposed energy sales have increased in the FY19 to 125.95 MU from 121.62 MU in the FY18. The CESC shall clarify this anomaly.**

ii) Growth Rate in No. of Installations:

The table indicating the growth rates for the no. of installations is furnished below:

Category	Percentage Growth Rates			
	2011-12 to 2016-17 CAGR	2013-14 to 2016-17 CAGR	the FY17 growth over the FY16	Growth rate proposed by the CESC for the FY19
LT-2a	4	4	4	4
LT-2b	6	6	4	6
LT-3	6	7	5	6
LT-5	5	6	4	5
LT-6 WS	9	8	8	8
LT-6 SL	3	4	5	4
HT-1	11	6	3	6
HT-2 (a)	5	5	4	5
HT-2 (b)	5	5	5	5
HT-2 (c)	-	41	11	8
HT-3(a)& (b)	5	6	8	6
HT-4	-23	-25	-25	0

It is noted that the growth rate considered for HT-2c is on lower side when compared to the CAGR of 41% and the previous year's growth of 11%. The CESC may consider revising the figures for this category.

iii) Growth Rate in Energy Sales:

The table indicating the growth rates for the energy sales is furnished below:

Category	Percentage Growth Rates			
	2011-12 to 2016-17 CAGR	2013-14 to 2016-17 CAGR	the FY17 growth over the FY16	Growth rate proposed by the CESC for the FY19
LT-2a	6	6	6	6
LT-2b	9	13	14	13
LT-3	6	7	6	6
LT-5	1	2	3	2
LT-6 WS	10	18	35	18

LT-6 SL	6	8	4	6
HT-1	6	3	-0.51	3
HT-2 (a)	-2	-5	-15	1
HT-2 (b)	4	1	9	4
HT-2 (c)	-	51	6	6
HT-3(a)& (b)	16	18	-20	16
HT-4	-14	-22	-29	1

a) The Commission notes that, though the CAGR and the previous year's growth rate is negative, the CESC has considered a positive growth rate for HT-2a and HT-4 categories, stating that it has considered a conservative growth rate of 1%.

b) For HT2(a) category, the sales estimate based on the analysis of open access impact should be considered. The CESC should have computed the growth rates considering the total energy sold to this category including OA/wheeling and should have estimated the sales considering the ratio of energy sold by the CESC in the FY17 to the total sales of the FY17 including OA/wheeling sales. the CESC may compute the HT-2a sales on the above method and furnish the data.

iv) To validate the sales, category-wise information in the following format shall be furnished:

a. No. of Installations:

Category	2015-16 Actuals		2016-17 Actuals		2017-18	
	As on 30th Nov 2015	As on 31st March 2016	As on 30th Nov 2016	As on 31st March 2017	As on 30th Nov 2017	As on 31st March 2018 (Estimate)
LT-2a						
LT-2b						
LT-3						
LT-4 (b)						
LT-4 (c)						
LT-5						
LT-6						
LT-6						
LT-7						
HT-1						
HT-2 (a)						
HT-2 (b)						

HT2C						
HT-3(a)& (b)						
HT-4						
HT-5						
Sub Total (Other than BJ/KJ and IP)						
BJ/KJ						
IP						
Sub Total (BJ/KJ and IP)						
Grand Total						

b. Energy Sales: **Energy in MUs**

Category	2015-16 Actuals		2016-17 Actuals		2017-18	
	1st April 2015 to 30th Nov 2015 (cumulative)	1st Dec 2015 to 31st March 2016 (cumulative)	1st April 2016 to 30th Nov 2016 (cumulative)	1st Dec 2016 to 31st March 2017 (cumulative)	1st April 2017 to 30th Nov 2017 (cumulative actuals)	1st Dec 2017 to 31st March 2018 (cumulative Estimate)
LT-2a						
LT-2b						
LT-3						
LT-4 (b)						
LT-4 (c)						
LT-5						
LT-6						
LT-6						
LT-7						
HT-1						
HT-2 (a)						
HT-2 (b)						
HT2C						
HT-3(a)& (b)						
HT-4						
HT-5						
Sub Total (Other than BJ/KJ and IP)						
BJ/KJ						
IP						

Sub Total (BJ/KJ and IP)						
Grand Total						

B. Sales to IP Sets for the FY19:

a. The Commission in its Tariff Order dated 30th March, 2016 had directed the CESC to furnish the consumption of IP-sets based on the readings from the meters provided to 11 kV feeders at the sub-station level duly allowing for 11 kV and LT distribution system losses. The CESC has submitted the consumption data deducting energy losses at uniform level of 13% in 11 kV, distribution transformers & LT system from the gross consumption to arrive at the net consumption.

b. Therefore, the CESC shall submit the month- wise consumption of all the agricultural feeders segregated under NJY Scheme for the FY17 and also for the FY18 (from April to November 2017) in the following format, **clearly indicating the energy input to the feeders on the basis of energy meters reading data (initial reading-final reading* multiplying constant).**

Month	Name of Sub-division	Name of. Segregated Agriculture Feeders in the subdivision	Initial energy meter reading in the feeder	Final energy meter reading in the feeder	Meter constant	Monthly Consumption in MU as recorded in all the agricultural feeders at the substations pertaining to the Sub division	Distribution loss(11kV line, DTCs,& LT line) Plus sales to other consumers if any, in MU (losses in all the agri. feeders only to be considered)	Net consumption duly deducting the Distribution loss (11kV & LT) & any other loads if any	No. of IP sets (total-dried up) connected to the agri. feeders in the subdivision			Average consumption of IP / month (specific cons in units /IP/month)	Total no of IP sets in the subdivision (as per DCB)			Total sales of IP sets in MU
									Beginning of the month	Serviced at the end of month	Mid- month		Beginning of the month	Serviced at the end of month	Mid- month	
1	2	3	3a	3b	3c	4 =(3b-3a) *3c	5	6=(4-5)	7a	7b	7c= (7a+7b) /2	8=6/7c	9a	9b	9c=(9a+ 9b)/ 2	10= 8*9 c
April 2016 To Mar-17	Subdiv -1 Subdiv -2 Subdiv -3 Subdiv ….															
Total																

April 2017 To Nov-17	Subdiv -1 Subdiv -2 Subdiv -3 Subdiv.																

Note:

(1) If the agricultural feeders are not yet segregated under NJY in any sub-division, then the specific consumption of the division / circle / zone / company (where NJY is taken up) shall be considered to compute the IP consumption of such sub-division.

(2) No. of dried up IP-set installations shall be deducted from the accounts, while arriving at the month-wise and subdivision-wise specific consumption and total sales.

c. As per format D2, the CESC has projected a specific consumption of IP-sets for the FY19 as 8,770 units/installation /annum respectively, whereas the approved specific consumption for the FY19 in the Tariff Order dated 30th March 2016 was only 7,843 units/installation /annum. The **CESC shall justify the basis for projecting IP set consumption considering a higher specific consumption of 8,770 units/installation /annum for the FY19.**

d. During the ESCOMs & KPTCL review meeting held on 25.10.2017, the CESC was directed to complete enumeration of IP sets by November 2017, to identify defunct/dried up wells in the field and take further necessary action to arrive at correct number of IP sets in its jurisdiction on the basis of enumeration report. The CESC has not furnished compliance on this. The CESC in its tariff application has indicated that unauthorized IP sets were identified while doing the GPS survey but the details of not in use /dried up installations were are given. The CESC shall furnish compliance on this issue in order to arrive at the correct number of live IP installations/consumption and for projecting correct number of installations/consumption for the FY19. During the Review meeting, the CESC has submitted that out of 3,58,018 number of IP sets for which the GPS survey was completed, 5,382 IP sets have been declared as not-in-use/dried up installations. That means 5,382 number of installations or the latest total number of identified dried up installations shall have to be deducted from the account from the number of installations shown in format D2 for the FY19 (from April, 2017 to Novembe,r 2017). **Accordingly, month-wise/ total IP consumption and specific consumption has to be revised. The CESC shall submit the revised**

consumption based on the number of installations to be revised for the FY19 taking into account GPS survey data. In the absence of submission of GPS based survey report of actual number of live IP sets, the Commission will not consider the revised IP consumption for the FY19 as proposed by the CESC.

C. Wheeling charges:

a. The CESC has proposed wheeling charges of 32.41 paise/unit and 75.62 paise/unit respectively for HT network and LT network. Further it is stated that proposed technical loses of 3.97% at HT level and 7.25% at LT level are applicable.

b. The CESC, referring to the Commission's Order dated 18.08.2014, regarding exemption of wheeling & banking charges and the CSS to solar power projects, has requested to levy wheeling & banking charges and the CSS on all solar transactions, stating that they have lost the CSS of Rs. 1.84 Crores in the FY18 up to October,2017. The CESC shall submit a suitable proposal indicating the rates with proper justification.

   The issue of introduction of wheeling & banking charges and the CSS for solar energy, would be dealt with separately in the solar tariff orders being issued by the Commission.

c. At present, for RE-sources there is concessional wheeling charges, the **CESC shall clarify whether the existing concessional wheeling charges shall be continued for RE sources. If not, suitable proposal, in the matter, may be submitted.**

D. RPO Compliance:

1. The CESC, while furnishing the details of RPO compliance for the FY-17, has stated that they have met solar RPO. Regarding non-solar RPO, it is stated that even after considering excess solar of 1.68 MU and reallocation of 276.62 MU of non-solar

energy from HESCOM as per the GO dated 26.09.2017, it has shortfall in meeting the non-solar RPO to an extent of 72.51 MU. In this regard, it has stated that the CESC has addressed a letter to the Commission requesting to carry forward the above shortfall. The Commission, vide letter dated 24.11.2017, after considering its request, has allowed carry forward of actual shortfall of the FY17 to the FY18.

The observations of the Commission on the RPO compliance are as under:

1. The solar energy purchased for the FY17 is indicated as 45.214 MU at page 149 and, at Page 147, the NTPC solar is indicated as 13.255 MU, totaling to 58.469 MU. Further considering 1.43 MU from other solar sources, the total would be 59.899 MU, whereas at page 172, solar energy for RPO is indicated as 58.26 MU. The CESC shall reconcile the figures and furnish the final data. Further break-up details for Solar procured from other sources shall be furnished.

2. Similarly, in the case of Non-solar RPO the total non-solar energy under PPA would be 405.21 MU [28.61+7.33+145.71+223.56], 22.36 MU from medium term [page 147] and 4.193 MU from short-term[pg-146], totaling to 431.76 MU, whereas at page 173 it is indicated as 479.13 MU in the table on the RPO. The CESC shall reconcile the figures and furnish the final data, furnishing the breakup of Section11 purchase pertaining to RE source during the FY17.

3. For validating the RPO compliance and to work out APPC, the CESC shall furnish the data as per the format indicated below, duly reconciling the data with audited accounts:

a. **Non-solar RPO:**

No.	Particulars	Quantum in MU	Cost- Rs. Crs.
1	Total Power Purchase quantum from all sources		
2	Non–solar Renewable energy purchased under PPA route at Generic tariff including Non-solar RE purchased from KPCL		
3	Non –solar Short-Term purchase from RE sources, excluding sec-11 purchase		
4	Non –solar Short-Term purchase from RE sources under sec-11		
5	Non-solar RE purchased at APPC		
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** **[No 2+ No.3+No.4+No.5 +No.7+No.9]**		
11	**Non-Solar RE accounted for the purpose of RPO** **[No.10- No.5-No.6-No.8]**		
12	**Non-solar RPO complied in %** **[No11/No1]*100**		

b. **Solar RPO:**

No.	Particulars	Quantum in MU	Cost- Rs. Crs.
1	Total Power Purchase quantum from all sources		
2	Solar energy purchased under PPA route at Generic tariff including solar energy purchased from KPCL		
3	Solar energy purchased under Short-Term, excluding sec-11 purchase		

4	Solar Short-Term purchase from RE under sec-11		
5	Solar energy purchased under APPC		
6	Solar energy pertaining to green energy sold to consumers under green tariff		
7	Solar energy purchased from other ESCOMs		
8	Solar energy sold to other ESCOMs		
9	Solar energy purchased from NTPC (or others) as bundled power		
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff		
11	Total Solar Energy Purchased [No2+ No.3+No.4+No.5+No.7+No.9+No.10]		
12	Solar energy accounted for the purpose of RPO [No.11- No.5-No.6-No.8]		
13	Solar RPO complied in % [No12/No.1]*100		

2. the CESC shall furnish the estimates for complying with solar and non-solar RPO for 2018-19, including the cost implication for purchasing RECs, if any.

E. Cross Subsidy Surcharge:

The CESC has stated that it has worked out the CSS as per the formula specified in the KERC (Terms and conditions for OA) (First Amendment) Regulations,2006 and has proposed the following CSS:

Paise/unit

Voltage level	HT-2a	HT-2b	HT-2c(ii)	HT-3b	HT-4	HT-5
66kV & above	162.85	192.46	163.53	141.08	139.26	289.23
HT-11kV &33 kV	162.85	192.46	163.53	136.38	127.31	289.23

The Commission notes that for HT-1, no CSS is proposed even though the CESC has worked out the CSS of 90.39 paise/unit at 66kV & above level. Further the Commission in its Tariff Order,2016 has adopted the surcharge formula as per Tariff Policy,2016. Therefore, the CESC shall clarify as to whether the CSS is worked out as per Tariff Policy-2016.

F. Power purchase:

1. The Projection of the quantum and cost of solar energy for the FY19 shall be done on the basis of the actual energy purchased from April, 2017 to November, 2017 and the balance of energy and cost to be projected duly considering the projects which are likely to be commissioned up to 31.03.2018. Hence the data in the following format shall be furnished by the CESC:

Type of Solar Plant	**Capacity in MWp**	**Estimated Energy and cost for the FY17**		**Estimated Energy and cost for the FY18**		**Approved by the Commission**
		Qnty (MU)	**Cost (RS Cr)**	**Qnty (MU)**	**Cost (RS Cr)**	**Yes/No**
1-3 MW Projects allotted to Farmers by KREDL.						
1150 MW Projects Taluk wise issued by KREDL.						
970 MW Projects entered PSA with SECI						
Solar Park						
Others MW projects through competitive biddings						
SRTPV projects i. 500kW & above Ii .more than 500kW						

2. In the case of Renewable Energy (excluding Solar), the CESC is required to consider the latest actual available data of the FY18 (till the end of November, 2017) and projects which are likely to be commissioned up to 31.03.2019, for projecting the power purchase for the FY19.
3. The CESC shall furnish an abstract of month-wise, source-wise energy requirement projected for the FY19 duly tallying with the D1 Format.
4. the CESC shall furnish the basis for the Tariff consideration for BTPS unit –III and all the new stations for which the Commission is yet to determine the tariff.

G. Capital Expenditure for the FY19:

the CESC has proposed a capex of Rs.**972.25** Crores for the FY19 against Rs.677 Crores approved in the MYT order dated 30th March, 2016. The CESC is stated to have carried out the works according to the **"Capital Expenditure Guidelines for ESCOMs"** issued by the Commission. The capital expenditure proposed for the FY19 is as shown below:

Capital Expenditure of the CESC for the FY19

Amount in Crores

<table>
<tr><th>SL NO</th><th>Schemes</th><th>the FY-19 Appd capex in MYT</th><th>proposal for the FY-19</th></tr>
<tr><td>1</td><td>Extension & improvement</td><td>350.00</td><td>180.00</td></tr>
<tr><td>2</td><td>NJY</td><td>25.00</td><td>20.00</td></tr>
<tr><td>3</td><td>HVDS</td><td>15.00</td><td>0</td></tr>
<tr><td>4</td><td>R-APDRP</td><td>10.00</td><td>20.00</td></tr>
<tr><td>5</td><td>IPDS</td><td></td><td>100.00</td></tr>
<tr><td>6</td><td>DDUGJY</td><td>100.00</td><td>150.00</td></tr>
<tr><td>7</td><td>RGGVY (Restructured) +DDG</td><td>0</td><td>40.00</td></tr>
<tr><td>8</td><td>Replacement of failed Transformers</td><td>5.00</td><td>5.00</td></tr>
<tr><td>9</td><td>Service Connections</td><td>50.00</td><td>90.00</td></tr>
<tr><td>10</td><td>Rural Electrification (General)</td><td></td><td></td></tr>
<tr><td>A</td><td>Electrification of Hamlets/HB/JC under RGGVY</td><td rowspan="3">50.00</td><td>3.00</td></tr>
<tr><td>B</td><td>Providing infrastructure to Irrigation Pump sets & Energization of IP SETS</td><td>160.00</td></tr>
<tr><td>C</td><td>Kutir Jyothi (RGGVY)</td><td>2.00</td></tr>
<tr><td>11</td><td>Tribal Sub Plan</td><td></td><td></td></tr>
<tr><td>A</td><td>Electrification of Tribal Colonies (RGGVY)</td><td rowspan="3">3.00</td><td>0</td></tr>
<tr><td>B</td><td>Energization of IP sets</td><td>2.00</td></tr>
<tr><td>C</td><td>Kutir Jyothi (RGGVY)</td><td>0</td></tr>
<tr><td>12</td><td>Special Component Plan</td><td></td><td></td></tr>
<tr><td>A</td><td>Electrification of HB/JC/AC (RGGVY)</td><td rowspan="3">10.00</td><td>0</td></tr>
<tr><td>B</td><td>Energization of IP sets</td><td>7.00</td></tr>
<tr><td>C</td><td>Kutir Jyothi (RGGVY)</td><td>0</td></tr>
<tr><td>13</td><td>Tools & Plants</td><td>4.00</td><td>5.00</td></tr>
<tr><td>14</td><td>Civil Engineering Works</td><td>5.00</td><td>10.00</td></tr>
<tr><td>15</td><td>Providing Meters to DTC, BJ/KJ, Street Light for replacement of electromechanical meters, providing modems to meters for communication</td><td>50.00</td><td>20.00</td></tr>
<tr><td>16</td><td>Software Development and smart grid project</td><td>0</td><td>1.50</td></tr>
<tr><td>17</td><td>Providing control wire and switches for street lighting, Timer switches, Providing LED lights etc., in 5 model villages in each MLA/MP constituency</td><td>0</td><td>48.00</td></tr>
<tr><td>18</td><td>Model Sub-division</td><td>0</td><td>100.00</td></tr>
</table>

SL NO	Schemes	the FY-19 Appd capex in MYT	proposal for the FY-19
19	Mahamastakabhishekha Works	0	3.75
20	Ag DSM works	0	5.00
	Total	677.00	972.25

The following are the observation on the capex proposal:

i. the CESC has reduced the capex of E&I works for the FY19. As the distribution loss reduction and improvement of reliability are main contributing factors for any E&I work, the CESC should explain the reasons for reduced capex under this category of works.

ii. In the case of **Providing infrastructure to Irrigation Pump sets & Energization of IP SETS**, the CESC has increased the capex from Rs.50 Crores to Rs.160 crores, whereas in the FY17, the CESC has achieved a very poor progress in this category. The same needs to be explained

iii. In the case of **IPDS and DDUGJY** works, the CESC has proposed Rs.100 Cores and Rs.150 Crores respectively. Since, these are time abound projects, the CESC needs to furnish the status of DPR preparation, tendering and award of works and the status of grants it is likely to get during the FY19.

iv. The **Mahamastakabhishekha works**, the CESC shall furnish the details of types of the works undertaken and the timeline for completion of the same.

v. The CESC should furnish the status of initiation of the works for **Providing control wire and switches for street lighting, Timer switches, Providing LED lights etc., in 5 model villages in each MLA/MP constituency.**

vi. Further, the CESC had sought an additional capex for Model subdivisions to be taken up in four subdivisions at a cost of Rs.340 Crores for the FY18, but has proposed only Rs.100 Crores for the FY19. the CESC is required to furnish the reasons for the same.

H. Observations on Revenue & Expenditure:

1. The CESC in its filing has projected the number of employees sanctioned and working strength for the FY17 to the FY19 as detailed below:

Sl. No.	Period	Sanctioned	Working	Increase in working employees
1	the FY17	10425	5492	
2	the FY18	10441	7214	1722
3	the FY19	10462	7569	355

   The projected working strength of employees has been increased by1722 and 355 for the FY18 and the FY19 respectively. The CESC shall furnish the cadre-wise recruitment of new employee and its additional cost for the FY17 to the FY19.

2. The CESC shall furnish the details for having incurred the actual amount of Rs.36.20 Crores towards professional charges and Rs.11.15 Crores towards Conveyance and travelling expenses as per the audited accounts for the FY17, which is higher than the actual amount spent during the FY14 to the FY16. The CESC shall furnish the item-wise details for the same.

3. The CESC shall furnish the revised Format-D-9, duly bifurcating the long term and short term loan details. The CESC shall also furnish the details of loan amount sanctioned, loan availed, repayment, rate of interest, amount of interest, and purpose of loan with OB and CB for the FY17 to the FY19.
4. The CESC, in format D4-Non Tariff Income (Other Income), has factored Rs.45.22 as depreciation withdrawn for assets created out of consumers' contributions and grants for the FY17. The CESC shall furnish the details of asset-wise value and the calculation of depreciation thereon for the FY17 and also on the projected value for the FY19.

5. The CESC under format D11-Other Debits, has considered an amount of Rs.6.79 Crores by including the provision for bad and doubtful debts for the FY19. The CESC shall furnish the basis for claiming such amount in the ARR for the FY19.

6. Under Format D13-Net- Prior Period Credit/Debit, the CESC has considered an amount of Rs.22.05 Crores without factoring the prior period credit values for the FY17. the CESC shall furnish the reason for not recognizing the amount of prior period credit in the APR for the FY17. Further, it has claimed the Net Prior Period Credit amount of Rs.2 Crores for the FY19. The CESC shall furnish the provisions for claiming such amount in the ARR for the FY19.

7. The CESC shall furnish the actual date of receipt of equity amount from GoK during the FY17 and up to November, 2017 during the FY18.

8. The CESC in its filing under Forma-t D4-Non-tariff Income (Other Income), has claimed an amount of Rs.42.98 Crores towards write back of interest for the FY17. The CESC shall furnish the details for claiming this amount.

9. In Format- D-21, there is a discrepancy between the number of consumers and the sanctioned load considered in projecting the expected revenue at existing and proposed tariff under LT2 (a), and LT5 (a)categories for the FY19. The CESC shall furnish the correct load details duly certified with circle -wise and total data.

10. Simplification of Tariff:

    the CESC in its application, has informed that the detailed report on the Simplification of Tariff Committee has been submitted to the Energy Department. The CESC shall furnish the copy of the report along with its recommendations to implement the same. Further, it has proposed changes to the tariff structure in LT 2(a), LT 2.2, LT 2.3, LT 3, LT 4 (b), LT 6, HT 2(c). The CESC shall furnish the existing and proposed sanctioned load, number of consumers, energy sales including the slab wise sales and the proposed tariff for the FY19.

11. The BESCOM has proposed certain new proposals in its Tariff Application. The CESC shall examine the same and submit its comments as regards their implementation with justification to implement the same in the CESC area on each of the following proposals:

i. Separate Tariff for 1 MW and above consumers:

ii. Additional charges for maximum demand exceeding the C.D:

iii. Increase in Re-connection charges:

iv. Billing Cycle for Temporary installations:

Separate Tariff for battery charging facility for motor vehicles:

I. Compliance to Commission's Directives:

Sl. No	Directives issued by the Commission	Observations made
1	**Consumer interaction meeting at Subdivision level.**	It was directed to conduct consumer interaction meetings at subdivision level chaired by the SEE once in a quarter to redress the consumer complaints. The CESC has conducted the consumer interaction meetings in the subdivisions. It is observed from the compliance submitted that in many subdivisions the participation of consumers is very poor indicating that they were not invited in advance for such meetings. The CESC should take effective measures to invite the consumers in advance so that the purpose of such meetings as well served. The CESC shall furnish compliance on this.
2.	**Directive on Energy Conservation**	The CESC has not submitted the details of servicing of all streetlight installations with LED/energy efficient lamps. The CESC shall submit compliance on the same.
3.	**Directive on use of safety gear by linemen**	Of the 3,378 linemen working, balance 508 linemen are not provided with the complete set of safety gear. The CESC shall submit the details along with timeline within which the remaining linemen will be provided with safety gear. Further, the CESC needs to explain as to why in Chamarajnagar-Kodagu circle, not a single training and awareness programs was taken up to train the linemen regarding safety aspects.
4	**Directive on providing Timer Switches to Street lights by ESCOMs**	The CESC has not submitted the quarterly compliance report to the Commission in this regard. The CESC should explain as to why It has not installed timer switches in Mysuru city and other places during 2016-17 as stated in the previous tariff filing.
	Directive on Load shedding	The progress of initiating a system of informing the consumers/public through SMS in case of load shedding due to any reasons, is the same as last year. The CESC shall submit the reasons for inordinate delay in

5		this regard.
6	**Directive on establishing a 24X 7 fully equipped centralized consumer service centers**	The CESC has not furnished the details of number of service stations established by providing all the infrastructural requirements along with required men. In this regard, the CESC shall furnish the details of the number of service stations established and the number of service stations required to be established in the subdivisions/Sections and the likely time required for establishing such service stations for addressing consumer complaints effectively.
7	**ENERGY AUDIT**	**Energy Audit of cities / towns** the CESC shall furnish the energy audit details up to Nov 2106 along with the details of measures initiated to reduce loss levels wherever the same are at higher levels. **DTCs Energy Audit**: Out **of 30,411 total DTCs metered, only 6,868 metered DTCs are being audited leaving 23,543 metered DTCs unaudited. The the CESC shall submit the reasons for not taking up the energy audit of DTCs provided with meters.** the CESC shall also furnish the remedial measures initiated to reduce losses in those DTCs wherever the losses are at higher level and the timeline by which all the remaining 24651 DTCs will be metered.
8	**Implementation of NJY**	The CESC is required to submit the details of number of feeders taken up in DDUGJY scheme (phase 3) and targeted date of commissioning of feeders under phase 3.
9	**Electrification of un-electrified Households**	The CESC shall furnish details such as total number of households identified which are not electrified in its jurisdiction, the total number of households electrified up to November, 2017 under various schemes and the timeline for completion of all such works. There is inconsistency in the number of balance households to be electrified in Mysuru and Mandya districts, the same needs to be clarified.
10	**Prevention of Electrical Accidents**	the CESC is required to furnish details of the number of hazardous locations/installations identified in its distribution network and the number of such installations rectified in the FY18 up to November, 2017.

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