CESC

Preliminary Observations on the Applications filed by the CESC for approval of APR for FY18, ARR for FY20 to FY22 & Retail Supply Tariff for FY20 under MYT Framework

1. Observations on Sales:

A. Sales- Other than IP sets:

I. Annual Performance Review for FY18

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 proposal of 6506.22 MU. The actual sale 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 with respect to 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. It is noted 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 for FY 18 are indicated in the table below:

Energy in MU

CATEGORY	APPROVED	ACTUALS	DIFFERENCE -MU
LT-2a*	1030.81	993.91	-36.90
LT-2b	9.73	9.62	-0.11
LT-3	297	289.24	-7.76
LT-4b	0.8	0.73	-0.07
LT-4c	14.84	19.87	5.03
LT-5	143.77	140.6	-3.17
LT-6	216.56	236.83	20.27
LT-6	111.53	111.2	-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	73.27	-11.24
HT-4	5.93	3.61	-2.32
HT-5	5.08	3.25	-1.83
Sub total	3368.54	3160.82	-207.72
BJ/KJ	106.17	92.23	-13.94

IP	2386.77	2540.15	153.38
Sub total	2492.94	2632.38	139.44
Grand total	5861.48	5793.18	-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 has noted the above replies of CESC. The observations of the Commission on FY18 sales are as under:

a) The Number of BJ/KJ installations is indicated as 443394 at page-47, whereas at page 39 and in D-2 Format, it is indicated as 495724. CESC shall furnish the reconciled figure.

CESC Replies:

The sum of the number of BJ/KJ installations consuming less than 40 and Installations consuming more than 40 units and billed under LT-2a is 495724 (467971+27753) as stated in page 39 and in D-2 format of the application for APR for FY-18. The number of BJ/KJ installations consuming less than 40 units is 443394 as indicated in page 47 relates to the live BJ/KJ installations for which subsidy claimed.

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 may furnish the reasons for the same.

CESC Replies:

The specific consumption in respect of HT-1 installations for FY-17 is 3.345 million units per annum and for FY-18 is 2.871 million units per annum. There has been a decrease of 14% on sales for FY-18 over FY-17. Also, during FY-18, the various tanks, lakes and ponds were filled up to tide over the water crisis. This has resulted in the increased consumption in respect of LT6 water supply installations to an extent of 20.27% over the approved sales. However both the 3 year CAGR and 5 year CAGR in respect of HT-1 installations are positive at 0.65% and 5.70% respectively.

II. Category wise sales for the control period-FY20-FY22:

a. CESC in its filing has stated that as per the KERC Load Forecasting Regulations, it has made projections upto 2023-24 and for the current control period the forecast upto 2021-22 would be relevant. It is stated that the estimates are based on CAGR for the period FY 15 to FY 18, CAGR for the period FY 13 to FY 18 and trend analysis of 10-

year data (linear & logarithmic trends). Wherever, there is negative growth, CESC has adopted 1% growth rate as a conservative estimate.
It is also stated that comparison has been made with forecast reports of 19th EPS, PRDC report and Feedback Infra report and that the projections as per above reports are not considered, as they are way off the mark. Further, it is submitted that based on half-year data, the FY19 estimates have been revised.

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

a) Even though, the CESC has made projections upto FY24, the Commission in the current proceedings has confined its observations to the Control period FY20-FY22 and observations are made accordingly.

b) It is observed that CESC has estimated the sales for second half of FY19, by applying CAGR, which is not correct, as CAGR is annual growth rate, CESC should have computed the same considering the growth rate during the second half of the year of FY18 over FY17 or should have computed the same on prorata basis.

c) The reduction in sales in some of the categories like LT-2a,2b etc., during first half of FY18 over first half of FY17 is attributed to heavy rains, which is not justified by any facts and figures.

d) LT (1) – BJ/KJ category:

It is observed that even though the number of installations has been retained at FY19 level at 493733, **the quantum of sales has been increased every year during the control period. Hence, CESC shall clarify the increase in sales without corresponding increase in the number of installations.**

Further, break up of installations consuming less than or equal to 40 units/month and those consuming more than 40 units/ month for the control period **FY20- FY22, shall be furnished** in the following format:

PARTICULARS	NO. OF INSTALLATIONS	CONSUMPTION IN MU
Installations Consuming upto 40 Units		
Installations consuming more than 40 units and build under LT 2a		

<u>CESC Replies:</u>

The proposed energy sales for the control period i.e., FY-20 to FY-22 have been increased to 142.57MU, 155.78MU, 170.21 MU from 130.48 MU in FY-19 duly considering a CAGR of 9.27% as there is a growth in this category year on year as both the 3 year CAGR and 5 year CAGR are positive for the period FY-13 to FY-18.

The breakup of installations consuming less than or equal to 40 units/month and those consuming more than 40 units/ month for the control period FY20- FY22 is detailed below;

PARTICULARS	FY-20			FY-21			FY-22		
	No. of Installations	Consumption in MU	Specific Consumption per annum	No. of Installations	Consumption in MU	Specific Consumption per annum	No. of Installations	Consumption in MU	Specific Consumption per annum
Installations Consuming upto 40 Units	468484	113.40	242.05	468736	123.90	264.33	468986	135.38	288.67
Installations consuming more than 40 units and build under LT 2a	25249	29.17	1155.40	24997	31.88	1275.20	24747	34.83	1407.44

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

CATEGORY	PERCENTAGE GROWTH RATES			
	2012-13 to 2017-18 CAGR	2014-15 to 2017-18 CAGR	FY18 growth over FY17	Growth rate proposed by CESC for control period
LT-2a*	4.06	4.03	3.11	4.03
LT-2b	5.00	5.04	2.39	5.06
LT-3	6.04	6.25	4.73	6.25
LT-5	5.04	5.35	3.81	5.34
LT-6	9.34	7.56	8.76	7.56
LT-6	3.44	4.30	4.20	4.30
HT-1	12.81	8.77	18.40	8.33
HT-2a	5.05	6.66	9.70	5.08
HT-2b	4.87	7.28	7.77	4.86
HT-2(c)	-	14.40	8.02	8.04
HT-3a &b	4.45	5.21	2.22	4.95
HT-4	-21.28	-8.55	8.33	6.67

It is noted that the growth rate considered HT-1 is on the lower side and for HT-4, it is higher, when compared to the CAGR. CESC may consider revising the figures for this categories.

CESC Replies:

The above data does not pertain to CESC.

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

CATEGORY	PERCENTAGE GROWTH RATES			
	2012-13 to 2017-18 CAGR	**2014-15 to 2017-18 CAGR**	**FY18 growth over FY17**	**Growth rate proposed by CESC for control period**
LT-2a*	5.88	4.39	2.27	5.88
LT-2b	10.73	10.09	7.25	10.74
LT-3	6.65	5.56	5.39	5.56
LT-5	1.37	0.44	0.01	1.36
LT-6	10.31	18.88	7.54	18.87
LT-6	7.65	7.15	7.43	7.65
HT-1	5.70	0.65	0.92	0.65
HT-2a	-2.53	-3.48	5.42	1.00
HT-2b	2.20	3.87	3.66	3.86
HT-2(c)	-	10.82	3.70	10.83
HT-3a &b	24.16	13.22	10.97	13.23
HT-4	-15.51	-14.72	-3.49	0.93

g) The sales growth rate considered for LT-6 WS is higher, keeping in view the growth rate of installations of 7.56% proposed by CESC. CESC may consider revising the sales.

h) The Commission notes that even though the CAGR and previous year growth rate is negative, CESC has considered a positive growth rate for sales to HT-2a and HT-4 categories, stating that it has considered a conservative growth rate of 1%. The Commission has noted the reply furnished by CESC.

i) For HT2(a) category, the sales estimate based on the analysis of open access impact shall be considered. 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 CESC in

FY18 to the total sales of FY18 including OA/wheeling sales. CESC may compute HT-2a sales on the above method and furnish the data.

CESC Replies:

The sales on open access and wheeling transaction differ every month. As on 31/12/2018, there are 19 numbers of open access consumers. The percentage of energy consumed by these consumers in respect to their total energy consumption also differs month on month. The details for FY-19 up to Nov-18 are as follows;

PARTICULARS	APR-18	MAY-18	JUN-18	JUL-18	AUG-18	SEP-18	OCT-18	NOV-18
No. of Open access Consumers	17	18	18	18	18	18	19	19
Total Consumption in Mus	44.08	45.74	49.25	49.22	48.56	45.36	42.27	41.24
Open access units scheduled in Mus	17.31	13.36	21.23	19.73	18.50	8.33	1.95	12.54
Open access units consumed in Mus	16.90	12.50	20.93	19.20	18.24	8.20	1.91	12.42
In % wrt total Consumption	59.21	52.18	61.87	59.70	58.55	45.48	36.38	53.50

In view of the above, it is not possible to project the data regarding the energy consumed on Open access/wheeling transactions by the deemed Open access consumers.

Moreover, the projections in respect of HT2a tariff category have been made only on the consumption from CESC.

j) Others: CESC has indicated auxiliary consumption of KPCL in D-2 format as sales from FY 18 onwards, which was not being indicated in sales earlier. CESC shall furnish the reasons for the same.

CESC Replies:

CESC has furnished the details of the details of auxiliary consumption data for the period 2005-06 to 2016-17 at page 39 & 40.

B. Sales to IP sets for FY18:

a. The Commission notes that, the overall sales have increased by 153.38 MU (6.43%)as against the approved sales of 2,386.77 MU as per the Tariff Order dated 11th April 2017, for the FY18. **The CESC shall explain the reasons for increase of 6.43% in sales to IP sets for the FY18.**

CESC Replies:

The increase in the sales of IP sets in the LT4a category for FY-18 over the approved sales is 153.38 MU which works out to **6.43% increase over the approved sales.** As per the directions of the Hon'ble Commission, the consumption of IP sets has been calculated based on the consumption of segregated IP feeders. The number of segregated IP feeders during FY-18 was 563. The specific consumption in respect of 230280 IP sets connected to IP feeders works out to 6794 units per annum. Power supply has been arranged to the IP feeders on an average of 7 Hrs per day as per directions of GoK.

Further, the specific consumption in respect of IP sets from FY-12 to FY-18 considering the mid year installations is as follows

YEAR	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18
Sales In MU	2115.94	2358.66	2349.01	2294.33	2306.87	3143.13	2540.15
Number of installations	230874	251979	262249	291205	312399	324468	348301
Specific consumption	9165	9361	8957	7879	7384	9687	7293

As could be seen from the above the specific consumption was on the higher side during FY-12, FY13, FY-14 and FY-17 and there was a fall in specific consumption during the years FY 15, FY 16 and FY 18.

b. Further, the Commission had approved a specific consumption of 6,461 units / installation / annum for the FY18. As per the consumption reported in the Tariff application, the specific consumption works out to 7,075 units / installation / annum for the FY18. This indicates an increase of 614 units / installation / annum (9.5%) in the specific consumption for the FY18. The CESC shall submit the clarification in increase of total sales to IP sets and also the specific consumption for FY18.

CESC Replies:

The approved specific consumption of LT4a category for FY-18 is 6728 units / installation / annum.

The specific consumption of LT4a category for FY-18 is calculated as below.

Sales—2540.15 MU

Number of Installations—359021 as at the end of FY-18.

Specific consumption –7075 units per annum

Considering the mid-year installations during FY-18, the specific consumption is as follows:

Sales—2540.15 MU.

Number of Installations as on Sept'18 —348301.

Specific consumption –7293 units per annum.

c. The actual number of installations for the FY18 has decreased by 10,381 to the approved number of installations of 3,69,402. **The CESC should explain and justify with valid reasons as to why the sales have increased despite the reduction in number of installations 10,381 in the FY18.**

CESC Replies:

The increase in the sales of IP sets in the LT4a category for FY-18 over the approved sales is 153.38 MU which works out to **6.43% increase over the approved sales.** As per the directions of the Hon'ble Commission, the consumption of IP sets has been calculated based on the consumption of segregated IP feeders. The number of segregated IP feeders during FY-18 was 563. The specific consumption in respect of 230280 IP sets connected to IP feeders works out to 6794 units per annum. Power supply has been arranged to the IP feeders on an average of 7 Hrs per day as per directions of GoK.

Further, the specific consumption in respect of IP sets from FY-12 to FY-18 considering the mid year installations is as follows

YEAR	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17	FY-18
Sales In MU	2115.94	2358.66	2349.01	2294.33	2306.87	3143.13	2540.15
Number of installations	230874	251979	262249	291205	312399	324468	348301
Specific consumption	9165	9361	8957	7879	7384	9687	7293

As could be seen from the above the specific consumption was on the higher side during FY-12, FY13, FY-14 and FY-17 and there was a fall in specific consumption during the years FY 15, FY 16 and FY 18. **The number of LT4a installations in FY-18 has increased by 6.01% over FY-17. 20339 numbers of LT4a installations have been serviced during 2018.**

d. In page number 41 of the CESC APR for FY18, it has been submitted that of the 4,11,157 number of IP sets for which the GPS survey is completed, 4,427 (3675 + 752) number of IP sets have been declared as not-in-use / dried up installations. The CESC should clarify as to why the number of IP installations surveyed is not taken for calculation of actual assessment and whether the not-in-use / dried up installations are considered while submitting the actual assessment for the FY18 (from April, 2017 to March, 2018). **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 FY18, taking into account the GPS survey data** or else furnish the rationale in submitting the IP assessment for FY18.

CESC Replies:

The consumption of IP sets for FY-18 has been calculated based on the consumption of IP sets on agricultural feeders. The same has been submitted to the Hon'ble

Commission vide letter No: TL/COM/COM/2018-19/14124 dated 26.10.2018. A copy of the same has been enclosed as Annexure-B**.** The dried up installations in each division month-wise have been deducted. Overall, the numbers of dried up installations for FY-18 that have been deducted are 2212 numbers.

In page number 41 of the CESC APR for FY18, it has been submitted that of the 4,11,157 number of IP sets for which the GPS survey is completed, 4,427 (3675 + 752) number of IP sets have been declared as not-in-use / dried up installations as on Sep-2018.

e. The Commission in its Tariff Order dated 14th May, 2018 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 not submitted the consumption data for FY18 and FY19 till September 2018. CESC shall submit the IP sets consumption for the FY18 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) by providing the data month-wise in order to consider its IP sales.**

CESC Replies:

CESC Mysore has arrived at the IP consumption for FY-18 and FY-19 till Sep-2018 only as per the energy recorded on the segregated feeders taking into account the difference between Final reading and Initial reading multiplied by the Constant. The dried up installations in each division month-wise have been deducted and monthwise consumption details of all the agricultural feeders segregated under NJY scheme in the specified format for FY-18 is emailed to KERC on 24.12.2018 and the same is enclosed as annexure-C and for FY-19 till Sep-2018 is under preparation and this will be submitted separately at the earliest.

f. The **CESC shall furnish month-wise data in support of its claims of IP consumption for the FY18 duly considering the above issues, as per the format given in the subsequent paras.**

CESC Replies:

The month-wise IP consumption data in the specified format for FY-18 is emailed to KERC on 24.12.2018 and the same is enclosed as annexure-C and for FY-19 till Sep-2018 is under preparation and this will be submitted separately at the earliest.

C. Validation of Sales for the control Period:

1. To validate the sales, category wise information in the following format shall be furnished:

a. No. of Installations:

	2016-17 ACTUALS		2017-18 ACTUALS		2018-19	
Category	**As on 30th Nov 2016**	**As on 31st March 2017**	**As on 30th Nov 2017**	**As on 31st March 2018**	**As on 30th Nov 2018**	**As on 31st March 2019 (Estimate)**
LT-2a*	1744361	1772844	1810046	1827944	1864895	1930456
LT-2b	2889	2971	3011	3042	3097	3241
LT-3	221241	226005	233438	236690	242580	256258
LT-4(b)	196	195	198	206	213	214
LT-4©	6656	6906	7465	7806	8352	9206
LT-5	38074	38835	39854	40315	41264	43191
LT-6WS	23434	24228	25556	26350	27407	29141
LT-6PL	20801	21194	21757	22085	23097	23892
LT-7	32703	34307	36742	38535	42715	45997
HT-1	122	125	140	148	157	168
HT-2(a)	863	876	938	961	985	1023
HT-2(b)	552	566	585	610	641	659
HT-2c	230	237	254	256	269	286
HT3 a & b	88	90	92	92	97	101
HT-4	12	12	12	13	14	15
HT-5	15	18	20	24	20	33
Sub total other than BJ/KJ and IP sets	**2092237**	**2129409**	**2180108**	**2205077**	**2255803**	**2343881**
BJ/KJ<= 40 units	365875	367500	460991	467971	463023	467058
BJ/KJ> 40 units	130988	129289	35264	27753	30559	26675
IP	327786	338682	350492	359021	368795	390338
Sub total of BJ/KJ and IP sets	**824649**	**835471**	**846747**	**854745**	**862377**	**884071**
Total	**2916886**	**2964880**	**3026855**	**3059822**	**3118180**	**3227952**

b. Energy Sales

	2016-17 ACTUALS		2017-18 ACTUALS		2018-19	
Category	**1st April 2016 to 30th Nov 2016 (cumulative)**	**1st Dec 2016 to 31st March 2017 (cumulative)**	**1st April 2017 to 30th Nov 2017 (cumulative)**	**1st Dec 2017 to 31st March 2018 (cumulative)**	**1st April 2017 to 30th Nov 2018 (cumulative actuals)**	**1st Dec 2018 to 31st March 2019 (cumulative Estimate)**
LT-2a*	641.77	301.09	659.70	304.61	662.17	364.08
LT-2b	5.86	3.11	6.30	3.31	6.42	3.64
LT-3	183.78	90.67	195.42	93.82	198.54	106.45
LT-4(b)	0.60	0.42	0.34	0.39	0.42	0.26
LT-4©	10.59	6.97	11.68	8.20	10.44	6.83
LT-5	93.74	46.84	92.20	48.39	96.04	49.06
LT-6WS	135.55	84.67	153.57	83.26	164.20	103.09
LT-6PL	65.04	38.47	72.42	38.78	77.59	41.40
LT-7	9.12	5.20	10.33	5.75	10.97	6.51
auxiliary				4.92	2.00	3.02
HT-1	282.19	136.05	280.49	141.60	295.43	147.90
HT-2(a)	437.26	197.47	437.80	231.34	544.64	322.04
HT-2(b)	79.08	38.16	81.48	40.05	87.84	47.43
HT-2c	32.69	15.37	33.44	16.41	35.63	21.18
HT3 a & b	45.78	20.24	36.91	36.36	60.59	5.04
HT-4	2.54	1.20	2.37	1.23	2.82	1.46
HT-5	2.61	0.81	2.43	0.82	1.50	1.14
Sub total other than BJ/KJ and IP sets	**2028.22**	**986.74**	**2076.89**	**1059.24**	**2257.24**	**1230.53**
BJ/KJ<= 40 units	23.78	11.41	59.19	33.05	66.46	37.08
BJ/KJ> 40 units	44.79	22.20	21.48	8.13	17.38	9.56
IP	1987.36	1155.76	1395.86	1144.29	1597.47	894.13
Sub total of BJ/KJ and IP sets	**2055.94**	**1189.38**	**1476.52**	**1185.46**	**1681.31**	**940.76**
Total	**4084.16**	**2176.12**	**3553.41**	**2244.70**	**3938.55**	**2171.30**

2. Sales to IP Sets for the FY20, FY21, FY22:

a) The Commission in its Tariff Order dated 14th May, 2018 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 not submitted the consumption data for FY19 till September, 2018 towards the claims submitted towards the IP assessment for FY19 and projections for FY20 to FY22.

b) Therefore, the CESC shall submit the month – wise consumption of all the agricultural feeders segregated under NJY Scheme for the FY18 and also for the FY19 (from April to September 2018) 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 (TOTALDRIED 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*9c
April 2017 To Mar18	Subdiv-1 Subdiv-2 Subdiv-3 Subdiv....															
Total																
April 2018 To Sept18	Subdiv-1 Subdiv-2 Subdiv-3 Subdiv.															

CESC Replies:

The month-wise IP consumption data in the specified format for FY-18 is emailed to KERC on 24.12.2018 and the same is enclosed as Annexure-C and for FY-19 till Sep-2018 is under preparation and this will be submitted separately at the earliest.

2. Power Purchases:

(a) Observations on Power purchase- APR for FY18:

I. The details of station-wise / Source-wise power purchased quantum & cost in the format as in Annexure-II of Tariff Order 2017, (with the same order and the same contents), shall be furnished.

CESC Replies:

Enclosed as Annexure-D.

II. A separate statement showing the variable cost in the ascending order from different sources of power shall be attached. Any deviation from merit order scheduling should be explained fully.

CESC Replies:

Enclosed as Annexure-E.

SLDC is the nodal agency for optimum scheduling and dispatch of electricity under merit order through safe, secure and economic operation of the State Grid. The SLDC is responsible for scheduling and dispatch of Electricity from various sources in accordance with power purchase agreements entered into by the ESCOMs with such sources. The SLDC not only monitors the quantum of energy transmitted to the ESCOMs, it also keeps the account of such energy transmitted.

III. The PGCIL Charges have increased by around 104%. The reason for such an increase in the charges should be explained with reasons. This has been increasing year after year which is resulting in huge burden on the end consumers. Whether, CESC Mysore has taken any initiative to address this issue of abnormal increase in the PGCIL POC charges, may be informed to the Commission.

CESC Replies:

The transmission charges payable to M/s PGCIL is based on various CERC orders. Since the implementation of the 3 rd amendment of CERC regulations-2015, transmission charges of PGCIL, which has been renamed as POC charges has gone up and ESCOMs have to pay these charges as per the terms of TSA. Further the inclusion of UPCL LTA and NTPC Kudgi TPS in the Regional Transmission account of SRPC has inflated the transmission charges of PGCIL. Many issues pertaining to the transmission charges of PGCIL are pending in the legal forums and till such time the current transmission charges which is based on the regional Transmission Account of SRPC has to be paid by the ESCOMs in proportion to their share.

IV. The CESC has considered 663.77 MU and Rs. 272.14 Crores as inter-ESCOMs energy charges for Energy balancing, as indicated in D1-Format. The basis for payment of this amount needs to be furnished besides submission of a reconciliation statement for the energy balancing among the ESCOMs.

CESC Replies:

ESCOMs are paying for the energy received from various generators in accordance with the allocations made by the GOK every year .These allocations are made as per ARR of the ESCOMs during tariff filing. But the actual quantum of energy received in any particular year is either higher or lower than the allocated quantum of energy. This increase over the allocated quantum or decrease below the allocated quantum is reconciled at the end of every financial year and ESCOM wise energy overdrawal or underdrawal will be calculated during this reconciliation. The over drawing ESCOM has to pay the under drawing ESCOM for the energy so overdrawn at the approved average power purchase cost of that under drawing ESCOM.

The energy reconciliation for FY 18 was finalized on 09.08.2018 and as per this reconciliation; CESC has overdrawn 663.77 MUs of energy from other four ESCOMs. The cost of energy overdrawn by CESC from other ESCOMs has to be paid at the approved average power purchase cost of the respective ESCOMs and the cost so worked out is Rs.272.14 Crores.

Reconciliation statement for the energy balancing among ESCOMs done at the O/o SEE, TBC, KPTCL, Bangalore for the year 2017-18 on 09.08.2018 is enclosed as Annexure-F for perusal.

V. In respect of the following Hydro and thermal stations, indicated in the D1 Format, the per unit total cost paid to the generators is on a higher side as compared to the per unit cost paid by the BESCOM. The CESC shall examine the same and recover excess payments, if any, from the generators, under intimation to the Commission, while explaining the reasons for the difference:

SL. NO	SOURCE	AVG. P.P COST AS PER CESC (RS/KWH)	AVG. P.P COST AS PER BESCOM (RS/KWH)	CESC'S AVG. P.P. COST IS HIGHER BY (RS/KWH)
	KPCL-Hydel			
1	Sharavath	0.52	0.42	0.10
2	Bhadra Power house	4.28	3.52	0.76
3	Munirabad	0.99	0.77	0.22
4	Ghataprabha(GDPH)	2.04	1.42	0.62
5	Kadra Dam	2.39	0.95	1.44
6	Kodasalli Dam	1.70	0.72	0.98
7	Gerusoppa/STRP	2.10	0.93	1.17
8	Almatti	1.66	1.36	0.30

	KPCL-Thermal			
1	RTPS 8	4.33	4.26	0.07
2	BTPS-Unit 1	5.27	4.61	0.66
3	BTPS-Unit 2	5.15	5.05	0.10
4	BTPS-Unit 3	6.02	5.51	0.51
5	Yermurus	8.21	7.00	1.21
	CGS			
1	NTPC-Ramagundam 3	3.10	2.75	0.35
2	NTPC-Simhadri Unit-2	4.49	4.25	0.24
3	NTPC-Kudligi 1&2	6.26	5.45	0.81
4	NLC TPS 2-Stage 2	3.65	3.37	0.28
5	NLC TPS 2-Expn	5.85	5.27	0.58
	other			
1	TB Dam	1.21	1.04	0.17

CESC Replies:

KPCL is raising monthly invoices on the basis of PPA's and tariff orders issued by the commission from time to time. The bills from April to March of a particular financial year are raised /claimed by KPCL on the estimated values which will be revised at the end of the year on the basis of the actual values for that year. If the revised values of the KPCL bills are received before the closure of the final accounts the same will be incorporated in the accounts for that year or else it will be accounted in the succeeding year. Any prior period claim is accounted as current year cost in the accounts of CESC as per the directions of statutory/AG auditors.

However CESC is deducting the cost related to excess moisture content of the coal received by KPCL in order to arrive at the weighted average cost of the coal in respect of thermal stations. Hence, except for thermal stations of KPCL, CESC is admitting the bills of KPCL as per the tariff orders of the KERC. In case of thermal stations, the KPCL bill amount is reduced to the extent of reduction in cost of coal due to moisture correction.

The cost admitted by CESC during 2017-18 is inclusive of the year end revision by KPCL. The detailed calculation of each station is given in the final bill of KPCL.

The KERC in the tariff order for 2017 has approved 2434.98 MUs of energy in respect of KPCL Hydel stations and the approved cost of this energy is Rs.153.76 Crores consisting of Rs.25.23 Crores as Capacity charges and Rs.128.52 Crores as energy charges. But the actual energy received during 2017-18 in respect Hydel stations of KPCL is 1409.985 MUs and the cost paid by CESC for this energy is Rs.114.981 Crores consisting of Rs.29.46 Crores as Capacity charges and Rs.85.521 Crores as energy charges.

From the above it could be seen that there is a reduction of 1025 MUs of energy than the approved energy while the capacity charges has increased by Rs.4.23 Crores. This decrease in energy and increase in cost resulted in higher rate per unit of Hydel stations.

In case of RTPS-8 unit, BTPS units 1 to 3 of KPCL, CESC has admitted the bills duly deducting the moisture correction factor of coal cost.

In case of YTPS unit, the firm has revised cost for 2017-18 and as per this revision CESC was given a credit of Rs.10.49 Crores during Sept 2018. If this cost is deducted from YTPS cost of CESC for 2017-18, the average cost per unit will be Rs.7.05 which is on par with cost of BESCOM. Since the accounts of CESC for 2017-18 has been finalised before the receipt of this credit amount, the same could not be accounted in the year 2017-18.
In respect of CGS stations, the bills have been processed by CESC as per terms of the PPA and respective tariff orders. However the bill calculations in respect of the above stations will be examined duly obtaining bill calculations from BESCOM and action will be taken to recover excess payments if any with due intimation to the commission.

VI. In respect of BTPS Unit-1 to 3, YTPS Unit-1&2, UPCL, NLC II Expansion, NLC Tamilnadu (Tuticorn), NTPC- Kudgi, M/s NTPC Tamilnadu Energy Ltd (Vallur), MAPS, NPCIL – Kaiga, the tariff indicated in the D1 Format is higher than the Commission reckoned tariff for FY18. The CESC Mysore shall furnish the basis thereof.

<u>CESC Replies:</u>

The tariff consisting of annual fixed charges and energy charges in respect of Thermal stations viz BTPS units, YTPS units, UPCL, NLC, NLC Tamilnadu Power Ltd, NTPC Kudgi, NTPC Tamilnadu Energy Company Ltd (Vallur) are regulated by KERC/CERC tariff orders. The annual capacity charges for each year during a control period remains unaltered while the rate of energy charges is totally dependent on the cost of Coal. The prevailing higher rate of coal along with GST and other charges contributes heavily to the higher energy charges being paid to these generators. The hike in energy charges of coal/lignite based generating stations has been already acknowledged by the Commission in the quarterly FAC filings of the CESC. Further the payment of compensation charges during reserve Shut Down, higher FERV rate of foreign currencies through which many of these generators make payments of loans also contribute to higher rate of energy charges.
In respect of nuclear plants of NPCIL like Madras Atomic Power Station and Kaiga Generating Station, the tariff is determined by the notifications issued by the department of Atomic Energy, from time to time. During FY 18, the tariff of these stations was revised as per notification dated 22.03.2018 which resulted in the payment of higher tariff.

VII. The power purchase made under Medium Term and payment made towards KSEB needs to be explained.

<u>CESC Replies:</u>

Medium Term Power purchase

The power purchase made from Co gen generators under Medium Term is for a period of 5 years commencing from 2016 to 2021.Even in the last year's tariff filing, the actual power purchased under Medium term for FY 17 and the projection for FY 18 was submitted to the Commission and the same was approved. This medium term power purchase from Co-generation plants is being done in accordance with the GOK order No.EN 16 PPT 2016 dated 11.11.2016 and GoK Letter No:EN 16 PPT

2016/P2 dated 17.02.2018. Further the tariff being paid to these generators has been approved by the commission vide order dated 11.04.2017.

KSEB Power purchase

CESC is procuring power from KSEB in order to provide electricity to 3 remote villages in Kodagu Dist. bordering Kerala state since 2005-06. Due to difficulty in arranging power supply to these villages through its own grid, CESC has resorted to getting power supply from KSEB, which has the infrastructure and the source to supply electricity to these villages. The commission has approved the power purchase from KSEB in all the previous years in the respective tariff orders.

(b) Observations on Power purchase for FY20 – FY22:

1. CESC has furnished the CAGR projection, to estimate the quantum of energy considered, for the control period FY20 to FY 22. The projection filed for the control period FY20 to FY22 in respect of the quantum of energy is different from the projection made in the perspective plan earlier submitted. The CESC shall furnish the reasons for the modified quantum of energy and also furnish the Generator-wise, Month-wise projections-wise capacity and energy (in terms of MW and in terms of MU). In respect of Renewable Energy (RE), month-wise break up of source-wise capacity and energy may be furnished. This is essential to analyze the month-wise variations of requirement of energy and availability from different sources.

2. CESC shall furnish the basis for considering the FC and the VC for BTPS unit -3, and YTPS.
3. CESC shall furnish the basis and calculation sheet for considering the FC and the VC for UPCL
4. CESC shall furnish the necessary write up for justifying the proposed energy purchase as per D-1 Format.
5. CESC has considered the same amount in respect of PCKL charges payable for FY20-22 for each of the years of the control period. The CESC shall furnish the reasons for considering the same amounts for all the years of the control period, ignoring the likely inflation/ revision of charges during the control period.
6. CESC shall furnish the basis to consider, the increase in the KPTCL transmission charges for every year and increase in the PGCIL charges for the control period FY20 to FY22.
7. CESC shall furnish the capacity and quantum of energy to be procured in respect of new RE projects for which it has executed the PPAs.

CESC Replies:

1. CESC, Mysore had actual figures of FY-18 (upto March-18) for preparing load forecast studies. With FY-18 as base year, CAGR for 5 year and 3 years were

calculated. A report had been submitted to the Commission vide Letter no: CESC/ GM(Com)/ DGM(RA1)/ AGM(RA4)/1/18-19/11402 dated:18.09.2018. However during filing projections for the control period FY20 – FY22, the actual sales and installation data for first half year of FY-19 i.e. up to September 2018 has been considered for projecting for the second half year of FY-19 and then revising projection for FY-19 and for the 5th control period.
Regarding the generator wise, month wise projections indicating generator wise / sources wise capacity and energy for the power procurement plan proposed by CESC for the control period, it is to be submitted that PCKL has made available the generator wise / sources wise data relating to the control period and hence, PCKL has been requested to furnish the same. On receipt of the same, CESC will submit to the Hon'ble Commission.

2,3&4.: CESC has obtained the source wise / station wise power procurement details from PCKL. As such, write up furnished by PCKL is enclosed as Annexure-G.

5. Information regarding PCKL charges has not received from PCKL for the control period. Hence the existing charges are retained for the Control period FY-20-22. Any addition / reduction in the cost will be brought to the notice of the Commission for Truing up and revised ARR for the Control period FY20-22.

_6. **KPTCL transmission charges**:
CESC has adopted the data shared by KPTCL; copy of the same is enclosed as Annexure-H.

PGCIL Charges:

Hon'ble Commission has rightly observed that the PGCIL charges are increasing year on year which is resulting in huge burden on the end consumers. This situation is being faced by majority of the States. As such, all the affected States, including Karnataka, have approached Ministry of Power (MOP) GOI, for modification of POC Charges, bringing the following discrepancies in the computation of POC charges.

- The Load flow studies are said to be totally not accurate and do not mirror the actual usage of each for assigning element.
- There is no scope for truing up for actuals under sharing regulations.
- The Grid sub stations cost should be apportioned to the State/Regions where they are located, as per CERC Tariff Regulations. But it is added in transmission line cost and shared in the same proportion among all Beneficiaries.
- The POC Charges are not reflecting the actual usage of transmission system by the Beneficiary.

On the above background, MOP had constituted a committee where in the Additional Chief Secretary to Government (ACS) GOK is one of the members in the Committee. ACS, GOK had entrusted, to study and report the POC issues, to PCKL. The draft Report on POC with available data for the year 2016-17 was prepared and submitted to the MOP by the Committee.

Further, the LTA quantum of UPCL considered in Regional Transmission Account by SRPC is 939 MW which includes the capacity transmitted in 220 KV Kemar lines also. The capacity transmitted in Kemar line is to be relinquished and cost of 400 KV Hassan-Mysore line is to be shared by all Beneficiaries as it is system strengthening asset but not by ESCOMs alone. These issues are pending before APTEL in the Appeal filed by ESCOMs/PCKL. The transmission charges of DVC and transmission charges of bundled coal power of NTPC under NSM have contributed increase in transmission charges of PGCIL.

7. Details pertaining to power purchase from new RE projects for which PPAs haven executed is furnished in Anenxure-I.

3. Capital Expenditure:

a) Capital Expenditure for the FY18:

i. In the Tariff Order 2017, the Commission had approved capex of Rs.552 Crores for CESC Mysore for FY18. Now, the CESC Mysore has indicated a capital expenditure of Rs.535.18 Crores in the table on page No.48, whereas in format D17, the total capital expenditure is shown as Rs. 999.09 Crores. The CESC Mysore shall explain the reasons for the variation in capex figures.

CESC Replies:

The total capital expenditure shown in D17 as Rs.999.09 Crores includes opening balance-Rs.260.19Crores, interest and finance charges capitalized-Rs.5.08 Crores, Turnkey Contractors control account –RS.55.94 crores and Self execution works and others- Rs.75.40 crores.

ii. It is to be noted here that, the CESC Mysore has exceeded the approved capex in some of the works which include, NJY, R-APDRP, Tools & Plants, Civil Engineering Works. Further, the CESC has not achieved the capex in respect of Extension & Improvement works, IPDS, DDUGJY, Replacement of failed Transformers, Rural Electrification and providing meters DTC BJ/KJ etc. CESC has incurred capital expenditure for RGGVY and software Development and smart grid project, which were not included in the Capex. It shows that CESC is not planning its capex as per the Capital Expenditure Guidelines. It is necessary for CESC Mysore to take up works which are approved by the Commission and which are essential and same shall be completed in time bound manner for effective utilization of the funds.

<u>CESC Replies:</u>

CESC obeys Hon'ble Commission's directions.

iii. The CESC shall 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 category of works.

<u>CESC Replies:</u>

Details of sources of funding are shown below;

Grants of Governament 2017-18

SL. NO	NAME OF GRANTS	BORROWINGS IN CRORES	REMAKRS
1	GK	7.10	
2	SDP	20.05	
3	CAPEX	120.00	
4	IPDS	18.85	
5	IPDS(Smart Grid)	4.88	
6	DDG	5.30	
7	DDUGJY	30.25	
Total		206.43	

Fresh Borrowings:

SL. NO	NAME OF BANK	BORROWINGS IN CRORES	REMAKRS
1	PFC	58.96	RAPDRP Part B
2	REC	35.64	NJY Phase 2
3	Sy Bank/BOI	144.48	CAPEX
4	Sy Bank	97.42	RUIP
Total		336.50	

Internal resources:

SL. NO	NAME OF PAYMENTS	AMOUNT IN CRORES	REMAKRS
1	Civil	18.36	
2	LC Bill	16.61	
3	GK	22.55	
4	Others	2.04	
Total		59.56	

b) Capital Expenditure for the FY20-22:

In the Tariff Order 2018, the Commission had approved capex of Rs.972.25 Crores for CESC Mysore for FY19 subject to Prudence check during the APR of FY19. Now, the CESC Mysore has indicated a capital expenditure of Rs.105.729 Crores upto September

2018 for FY19 in the table on page No.113 and 114, whereas in Format D-17, the total capital expenditure is shown as Rs. 1,243.89 Crores. The CESC Mysore shall explain the reasons for the difference in capex figures and confirm the correct status of capex incurred for FY19.

CESC Mysore shall provide necessary justification on each of the works in terms of its purpose, requirement, physical progress, cost and timelines of completion along with the no. of works to be taken up in each of the years for FY19 and for FY20 to FY22.

CESC Replies:

The total capital expenditure shown in D17 as Rs.1243.89 Crores includes opening balance-Rs.271.64 Crores and total capital expenditure proposed for FY-19 as 972.25. Whereas in page no.113 and 114 the actual capital expenditure incurred upto Sep-2018.

CESC in its proposal for FY19 and FY20 to FY22 included following works for which Capex budget is planned as follows;

1. E and I Works: For FY-19 It is proposed to install about 2000 nos. of additional transformers, as well as 500 nos of transformers of different capacities for capacity enhancement works. CESC has planned to continue various new works under System improvement work (E&I head). It is proposed to install additional transformers and also capacity enhancement works. Provision is made for New link lines to be constructed for evacuation of power from New sub-stations as well as to reduce HT/ LT ratio.

2. IPDS: The GoI has introduced the Integrated Power Development Scheme in urban areas. In CESC, 33 towns are included under this scheme. The work is awarded and DPR amount is Rs.170.00 crores and it is planned to complete the work during 2018-19. Hence Budget provision is made for Rs.100 crores for FY-19. Budget provision of Rs.30crores for FY-20 and Rs 20 cr for FY21 is made as project will be at completing stage in these years and provision is made for bill payment.

3. DDUGJY: Under Deen Dayal Upadyay Grameena Jyothi Yojana (DDUGJY) improvement works will be taken up in rural areas of five districts in CESC jurisdiction. For these works are awarded and planned to be completed during 2018-19. Hence, the provision is made for Rs.150 crores for FY-19. Budget provision of Rs.75 crores for FY-20 and Rs 70 cr for FY21 is made as project will be at completing stage in these years and provision is made for bill payment.

4. Replacement of failed Transformers: Budget provision of Rs.5 crores has been made for FY-20, FY-21 and FY-22 for replacement of failed and to be scraped transformers.

5. Service Connection Works: Under this budget provision is made for Drinking Water supply works, Providing Infrastructure to Ip set other than Gangakalayana works and

New service connection works which are having social obligation and continuous process.
Providing Infrastructure to IP sets: All the IP sets which were identified before GOK circular No EN 09/PSR 2011 Dated: 11.03.2011 as Un authorize are provided with Infrastructure. After the EN 41/PSR 2014 Dated: 14.07.2014 circular, all IP sets are treated as General IP and budget provision is made under service connection head. Hence Budget provision of Rs. 140 Cr, 150 Cr and 160 cr are made for FY-20, FY-21 and FY22 respectively.

6 &7. TSP/SCP: TSP &SCP are GoK programmes for which budget provision of Rs. 10.5 Cr, 11.5 Cr and 12.25 cr are made for FY-20, FY-21 and FY22 respectively.

8. Gangakalyana works: Under this Energisation of IP sets registered under Gangakalyana Scheme are covered. Budget provision of Rs. 84 Cr, 93 Cr and 105 cr are made for FY-20, FY-21 and FY22 respectively.

9. Tools & Plants:- Under this, Budget provision is made for providing safety T&P equipment to all Linemen for carrying out works efficiently and makes the work accident free. Hence it is proposed to provide the same wherever required and also to replace the existing old and default safety devices. Budget provision of 6 cr, 7 cr and 8 Cr are made for FY-20, FY-21 and FY22 respectively.

10. Civil Engineering works:-

The list of works for FY18 is enclosed in annex-1. CESC has planned to have own accommodation for all offices in a phased manner. It is proposed to construct approximately 30 numbers of new buildings for section/subdivision/division offices. New office buildings are to be constructed and Further the Sanitary system in many colonies needs to be improved.
Hence for civil engineering Budget provision of Rs. 12 Cr, 13 Cr and 14 cr are made for FY-20, FY-21 and FY22 respectively. The work wise details proposed are enclosed in annexure-2.

11. Metering programme: Budget provision is made for Providing Meters to DTC, BJ/KJ, Street Light for replacement of electromechanical meters, providing modems to meters for communication. Budget provision of Rs. 15 Cr, 16 Cr and 18cr are made for FY-20, FY-21 and FY22 respectively.

12. IT initiatives: IT initiatives like MMS/FMS//DTLMS/ data center others are being implemented as a tool to improve the system operations and management as a whole. It is necessary to provide computers to all offices up to grass root level. Hence a Budget provision of Rs. 20 Cr, 25 Cr and 30cr are made for FY-20, FY-21 and FY22 respectively for any new IT programmes.

13. GOK Budget announcement “BELAKU GRAMA” works:

As per the GOK budget announcement “BELAKU GRAMA” works , it has been directed to take up 5 villages in rural area from each MLA constituency and one village per MLA constituency for each MP for taking up various improvement works including additional DTC works, Re conductoring etc. (As per the GOK : EN 70 VSC 2017 Bengaluru Dated: 24.05.2017). DPR is prepared for an amount of 58.63 Crs and tendering is under progress. Hence budget provision of Rs 70 Cr is made for FY 20 and works are to be completed within 2019-20.

14. Model Sub-division works:

It is planned to convert Overhead distribution system to UG Cable system in Mysuru City area under Model Subdivision project. These works are under progress. It is planned to take up the works of Rs 100 Cr in each financial year. Hence a Budget provision of Rs. 112 Cr, 100 Cr and 80cr are made for FY-20, FY-21 and FY22 respectively including for bill payment.

15. DSM Activities:

AgDSM works: It is proposed to take up a pilot project in smart Grid area in CESC jurisdtiction for replacement of old pumpsets by Energy efficient pumpsets during 2018-19. Hence a provision of Rs 5.00 Cr is made for FY-19.

Hence a Budget provision of Rs. 10 Cr, 15 Cr and 15 Cr are made for FY-20, FY-21 and FY22 respectively for any upcoming new projects.

16. New Project (Any central or State Govt Programmes):

CESC has given budget provision for New Projects in future based on the following points:

New schemes or projects that may be envisaged by Central Govt or State Govt for betterment of public life by giving Quality supply.

Works which involves increasing the aesthetic value of cities coming under its jurisdiction.

Smart cities concepts, UG cable concepts even at small taluk level in future.

These are proposals which CESC may have to take up in future hence No of works and timeline will be decided as and when it is executed.

Hence a Budget provision of Rs. 17.42 Cr, 150Cr and 200 Cr are made for FY-20, FY-21 and FY22 respectively for any **upcoming new projects.**

4. RPO Compliance

CESC furnishing the details of RPO compliance for FY-18, has stated that it has met both solar and non-solar RPO.

The observations of the Commission on RPO are as under:

1. The solar energy purchased from NTPC for FY-18 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 shall reconcile the figures and furnish the final data.

CESC Replies:

The solar energy purchased from NTPC for FY-18 indicated as 48.30 MU at pg-54 is inclusive of NTPC NSM Solar energy whereas in D1 format, NTPC solar energy indicated as 13.86 MU which is only NTPC VVNL (Solar) energy. NTPC NSM Solar energy is included under NTPC NSM bundled power and total NTPC NSM energy is mentioned as 76.64 MU.

The breakup of NTPC VVNL & NTPC NSM bundled power is as given below;

SL.NO.	PARTICULARS	COAL ENERGY IN MU	SOLAR ENERGY IN MU	TOTAL ENERGY IN MU
1	NTPC VVNL	51.55	13.86	65.41
2	NTPC NSM	42.20	34.44	76.64
	Total NTPC Solar Energy		**48.30**	

Hence solar energy purchased from NTPC (VVNL+NSM) for FY 18 indicated as 48.30 MU is correct and there is no need for reconciliation.

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 shall reconcile the figures and furnish the final data.

CESC Replies:
Total Non-solar energy under PPA mentioned as 427.83 MU in D1 format is exclusive of co-gen energy purchased under Medium term. The co-gen energy purchased under Medium term is 132.91 MU. The total Non-solar energy purchased for FY18 is 560.74 MU.
However in CESC Tariff order for FY 17, the Non-solar energy purchased during April.17 & May.17 amounting to 27.41 MU has been set off against Non-Solar Obligation of FY17. A copy of the same is enclosed for perusal.
Hence the total non-solar energy under PPA for FY18 is 533.33 MU (560.74-27.41).

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

CESC Replies:

a. **Non-solar RPO:**

NO.	PARTICULARS	QUANTUM IN MU	COST- RS. CRS.
	Total Power Purchase quantum from all sources excluding Hydro energy.	5308.99	2828.97
	Non Solar renewable energy purchased under PPA route at generic tariff. (including co-gen energy purchased under medium term and excluding April.17 & May.17 non-solar energy amounting to 27.41 MU)	527.56	203.11
	Non solar short term purchase from RE sources, excluding Sec-11 purchase	0.00	0.00

	Non solar short term purchase from RE sources under Sec-11	0.00	0.00
	Non Solar RE purchased at APPC	5.77	2.06
	Non solar RE pertaining to green energy sold to consumers under green tariff	0.00	0.00
	Non solar RE purchased from other ESCOMs	0.00	0.00
	Non solar RE sold to other ESCOMs	0.00	0.00
	Non solar RE purchased from any other source, like banked energy purchased at 85% of generic tariff	0.00	0.00
	Total Non solar RE energy purchased (No.2+No.3+No.4+No.5+No.7+No.9)	533.33	205.17
	Non Solar RE accounted for the purpose of RPO (No.10-No.5-No.6-No.8) Plus Excess solar energy available after meeting Solar RPO	(527.26+122.73) =650.29	(203.11+68.99) =272.10
	Non Solar RPO complied in % (No.11/No.1)*100	12.25	

b. Solar RPO:

NO	PARTICULARS	QUANTUM IN MU	COST-RS.CRS
1	Total Power Purchase quantum from all sources excluding Hydro energy.	5308.99	2828.97
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 Sec-11 purchase	0.00	0.00
4	Solar energy purchased from RE under Sec-11	0.00	0.00
5	Solar RE purchased at APPC	0.00	0.00
6	Solar RE pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Solar RE purchased from other ESCOMs	0.00	0.00
8	Solar RE sold to other ESCOMs	0.00	0.00
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	0.00	0.00
11	Total Solar energy purchased (No.2+No.3+No.4+No.5+No.7+No.9+No.10)	268.73	151.06
12	Solar energy accounted for the purpose of RPO (No.11-No.5-No.6-No.8)- Restricted to RPO obligation.	145.99	82.07
13	Solar RPO complied in % (No.12/No.1)*100	2.75	

Note : Excess Solar energy transferred to Non-solar category for the calculation of RPO.

4. CESC shall furnish the estimates for complying with solar and non-solar RPO for FY 2018-19 to FY2021-22, including any cost implication for purchasing RECs, if any.

CESC Replies:

SL.NO.	PARTICULARS	FY19	FY20	FY21	FY22
1	Total Energy of CESC	7229.70	7496.13	7779.6	8088.33
2	KPCL Hydel	2587.56	2346.36	2346.36	2346.36
3	Priyadarshini Jurala	10.19	10.57	10.57	10.57
4	TB Dam	4.22	2.09	2.09	2.09
5	**Total energy excluding Hydro (1-2-3-4)**	**4627.73**	**5137.11**	**5420.58**	**5729.31**
A	**Non-Solar RPO Target in %**	**12**	**12**	**12**	**12**
6	Medium Term	43.43	142	142	0
7	NCE- Co-gen	23.14	51.7	51.7	51.7
8	Bio-Mass	14.93	12.95	12.96	12.96
9	Mini Hydel	389.54	165.67	165.67	165.67
10	Wind mill	292.83	197.5	197.5	197.5
11	**Total Non-solar energy purchased (6 to 10)**	**763.87**	**569.82**	**569.83**	**427.83**
12	**Non Solar RE accounted for the purpose of RPO Plus Excess solar energy available after meeting Solar RPO**	**763.87 (Excess solar energy not considered)**	**(569.82+ 278.47) =848.29**	**(569.83+ 250.87) =820.70**	**(427.83 + 110.05) =537.88**
13	**Non-solar RPO that will be complied in % (No.12/No.5)*100**	**16.50**	**16.51**	**15.14**	**9.39**

B	**SOLAR RPO TARGET IN %**	**6**	**7.25**	**8.5**	**10.5**
14	NTPC-VVNL	17.71	13.86	13.85	13.86
15	NTPC-NSM	148.53	144.93	144.93	144.93
16	Solar PV Plants	543.47	324.76	324.76	324.76

17	Solar Power @ Pavagada	-	144.4	195.61	195.61
18	Farmer's Scheme -1 to 3	-	-	-	-
19	Solar Power under VGF scheme	-	18.31	18.31	18.31
20	Solar Power under Taluk wise scheme	-	4.65	14.15	14.15
21	SRTPV	0.44	-	-	-
22	**Total Solar energy purchased (14 to 21)**	**710.15**	**650.91**	**711.61**	**711.62**
23	Solar energy accounted for the purpose of RPO - Restricted to RPO obligation.	**710.15(Not restricted.)**	**372.44**	**460.74**	**601.57**
24	**Solar RPO complied in % (No.23/No.5)*100)**	**15.34**	**7.25**	**8.5**	**10.5**

As shown in the above table, CESC will comply with the stipulated Solar RPO target for the years FY19 to FY22. In respect of Non-Solar RPO, CESC will comply with the stipulated Non-solar RPO targets for the years FY19 to FY21 after considering the excess solar energy available in that year. However in respect of FY22 , there is shortfall in achieving Non-solar RPO to an extent of 149.63 MU even after considering excess solar energy available after meeting Solar RPO. CESC hopes to achieve the stipulated Solar and Non-Solar RPO target. But if in case target is not achieved, then CESC seeks approval of Hon'ble commission to carry forward the excess energy of 170.23 MU (Solar energy) available after meeting the stipulated Solar and Non-Solar RPO targets in FY21 to FY22 so as to achieve the stipulated target.

5. Wheeling charges:

a. Consequent to issue of the Order dated 14.05.2018, the para referring to the earlier Order dated 04.07.2014 on W& B charges shall be deleted.

b. CESC has proposed wheeling charges of 34.40 paise/unit and 80.26 paise/unit respectively for HT network and LT network. Further it is stated that proposed technical loses of 3.92% at HT level and 7.25% at LT level are applicable.

c. CESC shall clarify as to whether the above wheeling charges are proposed to RE sources also. If not, CESC's proposal in the matter may be submitted.

<u>CESC Replies:</u>

Wheeling charges proposed may be continued for RE sources also.

6. Cross Subsidy Surcharge:

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	HT-4	HT-5
66kV & above	71.03	160.71	202.57	181.28	132.15
HT-11kV &33 kV	-	160.71	202.57	181.28	46.73

The Commission in its Regulations has adopted the surcharge formula as per Tariff Policy,2016. As such CESC shall compute the CSS as per Tariff Policy-2016 and indicate the CSS, HT-sub category-wise.

CESC Replies:

The CSS computed as per Tariff Policy-2016 is as furnished below:

PARTICULARS	**HT-1 WATER SUPPLY**	**HT-2A INDUSTRIES**	**HT-2B COMMERCIAL**	**HT2 ©II**	**HT3(A) LIFT IRRIGATION**	**HT3(B) IRRIGATION AND AGRICULTURAL FARMS**	**HT-4 RESIDENTIAL APARTMENTS**	**HT5 TEMPORARY**
Average Realisation rate-Paise/unit @ existing rate	545.13	802.64	1011.93	905.48	385.5685	659.8286	691	1581.53
proposed tariff hike	0.9056	0.9056	0.9056	0.9056	0.9056	0.9056	0.9056	0.9056
Average Realisation rate-Paise/unit	546.03	803.54	1012.83	906.39	386.47	660.73	691.91	1582.44
Cost of supply @ 66kV and above level	475.00	475.00	475.00	475.00	475.00	475.00	475.00	475.00
Cross subsidy surcharge paise/unit @ 66kV	71.03	328.54	537.83	431.39	-88.53	185.73	216.91	1107.44

and above level								
20% of the tariff applicable to the category of the consumers	109.21	160.71	202.57	181.28	77.29	132.15	138.38	316.49
Cross subsidy surcharge limited to 20% of the tariff applicable	**71.03**	**160.71**	**202.57**	**181.28**	**-88.53**	**132.15**	**138.38**	**316.49**
Cost of supply @ HT level	614.00	614.00	614.00	614.00	614.00	614.00	614.00	614.00
Cross subsidy surcharge paise/unit @ HT level	-67.97	189.54	398.83	292.39	-227.53	46.73	77.91	968.44
20% of the tariff applicable to the category of the consumers	109.21	160.71	202.57	181.28	77.29	132.15	138.38	316.49
Cross subsidy surcharge limited to 20% of the tariff applicable	-67.97	160.71	202.57	181.28	-227.53	46.73	77.91	316.49

VOLTAGE LEVEL	HT-1	HT-2A	HT-2B	HT-2C	HT-3B	HT-4	HT-5
66 kV & above	71.03	160.71	202.57	181.28	132.15	138.38	316.49
HT level-11 kV/33kV	-	160.71	202.57	181.28	46.73	77.91	316.49

7. Observations on Losses, expenses & Revenue for APR FY 18 & ARR for FY 20-22:

1. Distribution Loss: CESC in its application, as per the audited accounts for FY18, has reported the actual distribution loss of 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 is not satisfactory. CESC shall 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. MESCOM shall also furnish the status of distribution loss achieved in the FY19 as at the end of November, 2018.
Further, CESC has projected the distribution losses of 12.70%, 12.65% and 12.60% for FY20-22. The Commission notes that the projected losses by CESC is very insignificant, with the mere reduction of 0.05 to 0.10 percentage points, even with the proposed substantial investment in Capex to tune of Rs.761.92 Crores, Rs.835.60 Crores and Rs. 812.25 Crores for FY20-22 respectively, This is very significant. The CESC may reconsider the projected reduction in distribution losses for FY20-22.

CESC Replies:

The sales analysis of all tariff categories has been furnished in pages 100 to 105 of the application for the 5th control period i.e., FY-20 to FY-22.

The distribution loss for FY-16, FY-17 and FY-18(As on Nov-2017) is furnished below.

PARTICULARS	FY-17	FY-18	FY-18 AS ON NOV-2018
Input at Distribution level	7204.35	6679.50	4368.82
Total sales in MU	6260.28	5798.11	3938.55
Total Distribution loss in MUs	944.07	881.39	430.27
% Distribution Loss	13.10%	13.20	9.85

YEAR	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
% Distribution loss.	16.20	15.07	14.73	13.88	13.60	13.10	13.20

CESC Mysore is successful in bringing down the distribution loss to 13.10% during FY 17 from 16.20% in FY 12. A lot of Capex in respect of E&I is required to bring down the distribution loss by even 0.1%. Also, not all E&I works result in loss reduction. CESC jurisdiction is predominantly rural based and is having a vast forest area with a huge elephant and wildlife population. Most of the E&I works have been taken up to provide safety to elephants and other wild animals, ensure better reliability of power supply and ensure reduction in interruptions. Therefore, without being over ambitious, CESC Mysore has projected only realistic figures of distribution loss for FY-20 to FY-22. CESC Mysore requests the Hon'ble Commission to kindly accept the distribution loss figures of 13.2% for FY18 and projected the distribution losses of 12.70%,12.65% and 12.60% for FY20-22.

The data of energy audit for Towns and cities is furnished as below.

ENERGY AUDIT OF CITIES AND TOWNS							
Sl No.	Name of the Town/City	The FY 18 (April 17- Sep-17)			The FY 19 (Cumulative as at the end of Sep-2018)		
		Energy Input in MU	Energy Sold in MU	% Distribution Losses	Energy Input in MU	Energy Sold in MU	% Distribution Losses
1	Mysore	490.02	449.63	8.24	489.35	454.71	7.08
2	Chamarajanagara	16.04	14.43	10.03	15.41	13.86	10.06
3	Kollegala	17.42	14.53	16.59	25.35	22.80	10.08
4	Mandya	42.20	35.45	15.98	40.01	34.86	12.86
5	Hassan	57.62	50.81	11.82	59.61	52.38	12.13

2. Pay Revision Arrears: CESC in its APR filing, has claimed an amount of Rs.315.41 Crores and Rs.415.70 Crores as employee cost for FY17 and FY18. The CESC, in its audited account for FY18 under note 29.6.6 has informed that the pay scale revision to its employees has been given effect to. The CESC shall 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 Replies:

Actual amount of pay revision arrears paid to the employees for the period from 01.04.2017 to 31.03.2018 is detailed below;

SL.NO.	NAME OF THE UNIT	PAYSCALE ARREARS IN LAKHS	REMARKS
1	CESC	1464.93	1st installment
2	CESC	1458.31	2nd installment
3	CESC	1416.36	3rd installment
4	CESC	1613.34	4th installment
Total		5952.94	

3. Terminal Benefits: CESC its filings of APR for FY18 and ARR for FY20-22 has claimed Rs.68.54 Crores, Rs.75.19 Crores, Rs.82.50 Crores, Rs.90.75 Crores and Rs.99.39 Crores respectively towards terminal benefits under employee cost. The CESC shall furnish the computation sheet for the same along with the relevant Actuarial Valuation Report.

CESC Replies:

KPTCL and ESCOMS pension and gratuity Trusts letters are enclosed as Annexure-J.

4. Capex for Civil Engineering Works: MESCOM in its ARR filings for FY18 has claimed Rs.17.36 Cores as against an approved amount of Rs.5 Crores towards the capital expenditure on civil Engineering works. The CESC shall furnish the break up details for the same. Further, CESC also projected Rs.10 Crores for FY 19 Crores, Rs.12 Crores, Rs.13 Crores, and Rs.14 Crores towards civil engineering works for FY 20 to FY 22 respectively. CESC shall furnish the details of the works proposed under the head for FY19 to FY22.

CESC Replies:

The Hon'ble Commission in its Tariff order-2017 dated:11.04.2017 directed CESC that, ***it should meet any additional capex required during FY-18, only through re-appropriation of approved amounts for the prioritized category within the overall capex and not to seek the approval of the Commission in the middle of the year for additional/ higher capex***. Accordingly CESC has re-appropriated the capital expenditure towards civil engineering works without exceeding overall capex. The same has been approved in the 64th meeting of the Board of Directors of CESC, Mysore.

The details of works carried out during FY-18 and Tentative List of works proposed for FY-19, FY-20, FY-21,FY-22 are enclosed as Annexure-K.

5. Regularization of un-authorized IP sets: CESC in its application for approval of APR for FY18, has claimed Rs.19.62 Crores as against Rs.34 Crores approved by the Commission as the capital expenditure incurred for regularisation of un-authorized IP set (UNIP) installations for FY18. Further, CESC has not proposed any amount of capital expenditure for regularisation of UNIP installation for FY20-22. CESC shall furnish the Division wise details of number of unauthorized IP sets existing, regularized during FY18 and the balance of UNIP installation yet to be regularized as at the end of the March, 2018. If there is any balance work, CESC shall furnish the division-wise action plan for regularization of UNIP installations with both number of UNIP installations and the amount of capex required and accordingly revise and submit the Capex programme for FY19-22.

CESC Replies:

All the IP sets which were identified before GOK circular No EN 09/PSR 2011 Dated: 11.03.2011 as Un authorize are provided with Infrastructure. After the EN 41/PSR 2014 Dated: 14.07.2014 circular, all IP sets are treated as General IP and budget provision is made under service connection head. Hence Budget provision of Rs. 140 Cr, 150 Cr and 160 cr are made for FY-20, FY-21 and FY22 respectively.

The division wise unauthorized IP sets existing, regularized and balance as at the end of March2018 is as detailed below;

SL.NO	DISTRICT	IP NOS REGULARISED/ REGISTERED	INFRASTRUCTURE CREATED	BALANCE INFRASTRUCTURE TO BE CREATED
1	N.R.Mohalla	1623	1476	147
2	V.V.Mohalla	1416	1337	79
3	Nanjangud	9824	7114	2710
4	**Hunsur**	**23414**	**16453**	6961
	Total	36277	26380	9897
5	Ch.Nagar	3738	2738	1000
6	**Kollegala**	**4318**	**3745**	573
	Sub-Total	8056	6483	1573
7	**Madikeri**	**2913**	**2637**	276
	Total	**10969**	**2924**	8045
8	Maddur	10021	7628	2393
9	Mandya	6643	5985	658
10	Pandavapura	3220	2688	532
11	K.R.Pet	3501	2625	876
12	**Nagamangala**	3823	3186	637
	Total	**27208**	**22112**	5096
13	Hassan	10936	9537	1399
14	Sakaleshpura	3520	2118	1402
15	C.R.Patna	5672	5217	455
16	Arasikere	4186	3937	249
17	**H.N.Pura**	**9844**	**7679**	2165
	Total	**34158**	**28488**	5670
Grand Total		**108612**	**86100**	22512

6. Details of Long-term and Short-term Loans: CESC shall furnish the Bank / Financial Institution-wise details in the D9 format **for long term and short term loan separately** for FY18 and the actuals up to November,2018 and the projections for the remaining period of FY19 and the projection for FY20 to FY22. The details include the opening balance, receipt, repayment, term of loan, rate of interest, purpose of loan, interest amount and the closing balance of loans.

CESC Replies:

Details of Long-term and short term loans are enclosed as Annexures-L.

7. Interest on consumer Deposit: CESC shall furnish the computation sheet for having claimed the interest on consumer deposit for FY18 to FY22.

CESC Replies:

Computation data is shown below;

AMOUNT IN CRS				
Statement showing the Details of interest on security deposits				
Sl No	Year	Deposit	Interest rate %	Amount
1	2019	660.94		
2	2020	727.03	6.75%	42.38
3	2021	799.74	6.75%	46.62
4	2022	879.71	6.75%	51.28

8. Computation of O & M expenses: CESC has not furnished the computation sheet as per MYT norms for having claimed the O&M expenses for the FY18 to FY22. CESC shall furnish the same.

CESC Replies:

The Methodology adopted by the commission in its Tariff Order FY17 for computation of normative O&M expenses for FY18 to FY22 is detailed below;

Amount in Crs

PARTICULARS	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**
No. of Installations	**3059822**	**3227952**	**3356626**	**3491702**	**3633521**
Weighted infaltion index		7.50%	7.50%	7.50%	7.50%
Consumer Growth index (CGI) Based on 3 years CAGR	0.00%	4.24%	4.22%	4.50%	4.02%
Normative O&M expenses for 5th control period (FY-20 to 22) excluding P& G Contiubtions	550.07	550.07	603.63	662.33	728.59
O&M index =O&M (t-1)*(1+WII+CGI-x)	550.07	603.63	662.33	728.59	798.01
Addition liability on account of revision in acturial valuation of P&G percentage rates			60.24		
Grand Total	**550.07**	**603.63**	**722.57**	**728.59**	**798.01**

9. Equity Infusion: CESC shall furnish the amount of equity infused by the GoK through various Government Orders and the actual date of receipt during FY 18 and upto November, 2018 during FY 19.

CESC Replies:

The actual date of receipt of equity amount from GoK during FY18 and during FY19 upto November, 2018 is enclosed as Annexure-M.

10. Details of consumer education Fund: CESC shall furnish the break up details for having incurred the expenditure towards consumer's relation/education during FY18 and up to November, 2019 during FY19.

CESC Replies:

The expenditure towards consumer's relation/education during FY18 and up to November, 2019 during FY19 is enclosed as Annexure-N.

11. Subsidy claims: CESC shall furnish the details of subsidy claims submitted to the GoK and the subsidy received in respect of IP and BJ/KJ installations along with energy sales during FY18. CESC shall also furnish the details of subsidy pertaining to the past period received from the GoK during FY18 separately.

CESC Replies:

Subsidy claimed details are already furnished in page no.47. Subsidy received statement is enclosed as Annexure-O.

12. Modification to the Special Incentive Scheme (SIS): The CESC in its filing of ARR for FY20-22, has proposed certain modifications to the Special Incentive Scheme (SIS) approved by the Commission in its Tariff Order 2018 dated 14.05.2018. CESC has not furnished the details about the financial losses incurred in implementation of the Scheme. The CESC shall analyze and submit the report by computing the financial effect of the scheme from the date of its implementation by comparison of the monthly bills (with both demand and energy charges), with and without the application of SIS benefits for all the installations which have opted for the SIS.

CESC Replies:

In CESC only one HT consumer has opted for Special Incentive Scheme in VV Mohalla division. The approval is under process.

However for the case study, M/s Khayathi steels Industries, Nanjangud has been analyzed. The analysis by computing the financial effect of the scheme after implementation by comparison of the monthly bill (with both demand and energy charges), with and without the application of SIS benefits and also as per the proposed modification to SIS is as follows.

WITHOUT THE APPLICATION OF SIS IN RS.	WITH THE APPLICATION OF SIS IN RS.	WITH THE PROPOSED MODIFICATION OF SIS IN RS.
4,12,91,110.00	3,86,79,872.00	3,94,79,021.00

13. Details of Gross Fixed Assets: The details of Gross Fixed Assets and the Net Fixed Assets filed by the CESC in its APR for FY18 under D15 format and D16 Format does not talley with the figures as per the audited accounts submitted for FY18. CESC shall submit the revised D15 and D16 Format by considering the audited accounts figures for FY18, besides recasting the same for FY19-FY22.

CESC Replies:

There is no difference in audited figures and filling figures. It is requested to refer page no.109 of audited annual accounts and page no.280 (D15) and 290 (D17) of filing book.

14. Submission of AG Audited Accounts: The CESC shall furnish the C.A.G.s audited accounts for FY 18.

CESC Replies:

CESC has submitted audited accounts books (11 copies) on 30.11.2018 along with the application of Tariff filling as annexure A. However three copies are enclosed herewith.

8. Additional Surcharge:

The Commission, in its Order dated 14th May, 2018 had approved recovery of additional surcharge from the OA consumers for FY19 based on the actuals for FY17. Order to continue the recovery of additional surcharge, the CESC shall furnish the details of computation of Additional Surcharge as per Annexure enclosed to these observations in Table-1 to Table-3, with reference to the actuals power purchase costs and Revenue realized for FY18 and also as per the estimates for FY20 separately. These details are required to establish the under-recovery of stranded cost in the generation, transmission and distribution activities. The computation of additional surcharge with reference to estimates in the ARR for FY20 is required to demonstrate that the costs continue to be stranded even during the year 2020.

CESC Replies:

The calculation of additional surcharges for the FY-18 and FY-20 is detailed below;

FY-20

PARTICULARS	UNIT	110KV & 66 KV	11 KV	LT	TOTAL
Energy Sales as per flow diagram	MU	739.67	871.90	4723.79	6335.36
Distribution Losses	MU	0	286.65	634.99	921.64
Net IF energy	MU	739.67	1158.55	5358.77	7256.99
Transmission Loss	%	3.19%	3.19%	3.19%	
Net Energy at Gen	MU	764.0430627	1196.72679	5535.351211	7496.12
Dist of Energy input	%	10.19%	15.96%	73.84%	1.00
PP Cost	Rs.in Cr.	2976.05			2976.05
Dist of PP Cost	Rs.in Cr.	303.3342628	475.1148939	2197.600843	2976.05
Dist of energy sales	%	11.68%	13.76%	74.56%	1.00
Other Cost (Transmission & Dist. Network)	Rs.in Cr.	473.54			473.54
Dist. Of other cost	Rs.in Cr.	55.28708227	65.17067924	353.0822385	473.54

Total Cost	Rs.in Cr.	358.6213451	540.2855732	2550.683082	3449.59
Voltage wise per unit Cost	Rs./unit	**4.85**	**6.20**	**5.40**	**5.44**

Particulars	Unit	110kV & 66 kV	11 kV	LT	Total
PP Cost	Rs.in Cr.				2976.05
Dist. Of PP Cost	Rs.in Cr.	303.33	475.11	2197.60	2976.05
% share		10.19%	15.96%	73.84%	
Total Fixed Charges PP	Rs.in Cr.				993.99
Voltage wise Fixed Charge	Rs.in Cr.	101.31	158.69	733.99	993.99
Total Variable Charges	Rs.in Cr.				1982.06
Voltage wise VC	Rs.in Cr.	202	316.43	1463.61	1982.06
other Cost	Rs.in Cr.	36	56	258	350.00
Total Fixed Expenditure (FC+ Other Cost)	Rs.in Cr.	136.99	214.56	992.44	1343.99

	11 kV and above consumers (HT)	LT consumers			
FC	351.55	992.44			
EC	518.45	1463.61			
Total	870.00	2456.05			
FC %	40%	40%			
Ec%	60%	60%			

Proposed fixed charges from HT consumers (D21)= Rs.179.02 Crores.					
Total Fixed Charges to be collected = Rs.458.39 Crores					
Estimated Under recovery from Fixed Charges = Rs.279.37 Crores	279.37				
Additional Surcharge = Rs.1.73(173Paisa)	1.73				

FY-18

PARTICULARS	**UNIT**	**110KV & 66 KV**	**11 KV**	**LT**	**TOTAL**
Energy Sales as per flow diagram	MU	697.21	650.46	4450.46	5798.13
Distribution Losses	MU	0	297.37	584.50	881.87
Net IF energy	MU	697.21	947.83	5034.96	6680.00
Transmission Loss	%	2.68%	2.68%	2.68%	
Net Energy at Gen	MU	716.41	973.93	5173.61	6863.95
Dist of Energy input	%	10.44%	14.19%	75.37%	1.00
PP Cost	Rs.in Cr.	2654.32			2654.32
Dist of PP Cost	Rs.in Cr.	277.04	376.62	2000.66	2654.32
Dist of energy sales	%	12.02%	11.22%	76.76%	1.00
Other Cost (Transmission & Dist. Network)	Rs.in Cr.	324.38			324.38
Dist. Of other cost	Rs.in Cr.	39.01	36.39	248.98	324.38

Total Cost	Rs.in Cr.	316.04	413.01	2249.64	2978.70
Voltage wise per unit Cost	Rs./unit	**4.53**	**6.35**	**5.05**	**5.14**
Particulars	Unit	110kV & 66 kV	11 kV	LT	Total
PP Cost	Rs.in Cr.				2654.32
Dist. Of PP Cost	Rs.in Cr.	277.04	376.62	2000.66	2654.32
% share		10.44%	14.19%	75.37%	
Total Fixed Charges PP	Rs.in Cr.				717.86
Voltage wise Fixed Charge	Rs.in Cr.	74.93	101.86	541.08	717.86
Total Variable Charges	Rs.in Cr.				1936.46
Voltage wise VC	Rs.in Cr.	202	274.77	1459.58	1936.46
other Cost	Rs.in Cr.	37	50	264	350.00
Total Fixed Expenditure (FC+ Other Cost)	Rs.in Cr.	111.46	151.52	804.89	1067.86
	11 kV and above consumers (HT)	LT consumers			
FC	262.97	804.89			
EC	476.88	1459.58			
Total	739.85	2264.47			
FC %	36%	36%			
Ec%	64%	64%			
Proposed fixed charges from HT consumers= Rs.262.97 Crores.					
Total Fixed Charges to be collected = Rs.400.91 Crores					
Estimated Under recovery from Fixed Charges = Rs.137.94 Crores	137.94				
Additional Surcharge = Rs.1.02(102Paisa)	1.02				

9. Observations on Directives:

SL NO	DIRECTIVES ISSUED BY THE COMMISSION	OBSERVATION MADE	CESC REPLIES
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. It is observed from the compliance submitted that the CESC has arranged CIM in 2 number of subdivisions in one day. This might have been one of the reason for poor participation of consumers.	The two sub division adjacent to one another to one another and sub divisions are of same taluk. To the said reason the CIM's will be taken on the same date in Fore noon and after noon.

<table>
<tr><td></td><td></td><td>The CESC should take suitable measures to conduct the CIMs effectively on different dates in each of the subdivisions and invite the consumers in advance so that the purpose of such meetings is well served. The CESC shall furnish compliance on this.</td><td></td></tr>
<tr><td>2</td><td>Directive on preparation of energy bills on monthly basis by considering 15 minute's time block period</td><td>CESC shall furnish the month-wise details of cost involved in respect of the inadvertently banked energy till September 2018.</td><td>The month-wise details of cost involved in respect of the inadvertently banked energy till September 2018 is enclosed as AnnexureP.</td></tr>
<tr><td>3</td><td>Directive on use of safety gear by linemen</td><td>CESC is not submitting the quarterly compliance report to the Commission. From the statistics furnished in tariff filing, 23.85% (1023 Linemen out of 4288) of the linemen staff are not provided with the safety gear. CESC shall submit the compliance and the definite timeline for providing a complete set of safety gear to all the linemen.

CESC shall also provide the details of training and awareness programs taken upto train the linemen regarding safety aspects during FY18 and FY19 till September 2018.</td><td>Action taken to provide Safety gear to 1023 linemen's.

CESC has provided 617Nos. Training programs and 217 Nos. of awareness programs to the linemen during FY18.

During FY19 till Sep-2018 194 training programs and 100 awareness programs conducted to the linemen.</td></tr>
<tr><td>4</td><td>Directive on providing Timer Switches to Street lights by ESCOMs</td><td>As per the data furnished in the tariff filing, 21,323 SL installations are required to be provided with timer switches. CESC has also not submitted the compliance as to whether LED / energy efficient lamps are being used and timer switches are provided while servicing of new streetlight installations.

CESC shall submit the compliance on the same.</td><td>The CESC has been issued the following circulars for servicing of new streetlight installation and extension/modification of existing streetlight installations with LED/energy efficient lamps and timer switches.
1. CESC/GM(T)/DGM(DSM)/AGM(DSM)/2017-18/cys-127 dated:08.05.2017.
2. CESC/GM(T)/DGM(DSM)/AGM(DSM)/2018-19/cys-248 dated:24.05.2018.
The details of Timer switches existing at the end of November-18 are as follows:

<table>
<tr><th>SN</th><th>Circle</th><th>No. of existing timer switches</th></tr>
<tr><td>1</td><td>Mysore</td><td>548</td></tr>
<tr><td>2</td><td>Chamarajanagara & Kodagu</td><td>114</td></tr>
<tr><td>3</td><td>Mandya</td><td>104</td></tr>
<tr><td>4</td><td>Hassan</td><td>211</td></tr>
<tr><td colspan="2">Total</td><td>977</td></tr>
</table></td></tr>
</table>

5	Directive on Load shedding	CESC is not submitting to the Commission, its projections of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month for approval, regularly. CESC shall submit compliance on the same. The CESC in its tariff filing has informed that it is making use of "URJA MITRA" app developed by MoP for the dissemination of SMS on outage information to citizens by field staff. CESC shall submit the details of the number of consumers' covered under this, and the percentage of the consumer's details available in the system to the total no. of consumers.	CESC is Submitting the Availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month through proper channel without fail to Commercial Section. Note: Please find the attachment of the details submitted from May-2018 to Dec-2018 Total no. of Consumers on dash board of Urja Mitra App : 11.93 Lakhs Total no. of Consumers in CESC Jurisdiction: 31.12 lakhs. Percentage of Consumers Uploaded to the total no. of Consumers : 38.33%
6	Directive on establishing a 24 X 7 fully equipped centralized consumer service centers	The CESC has not furnished the details of the number of service stations it has established till September 2018, by providing infrastructural requirements at the subdivisions / sections and the balance service stations required to be established in the Subdivisions / Sections for effective monitoring of complaints and the likely time to be taken for establishing such service stations. CESC was directed to reduce the consumer downtime to address the complaints. CESC is directed to report average time taken to attend to a complaint as at present and the efforts made to reduce the downtime further in future. The CESC shall furnish compliance in this regard. Comparison of the downtime analysis for FY17 and FY18 shall be furnished.	Out of 62 Sub-Divisions in CESC area already 59 Nos of 24X7 Service Stations are operational at Sub-Division level. Also 13 Nos of Service Stations are operational at Section level. Total 72 Nos at the end of Sep-2018 Remaining Service Stations at 3 Sub-Divisions will be established at the earliest. In FY 17, the average time taken to attend the 38692 no of complaint is 2 hrs. 57 min. In FY 18, the average time taken to attend the 71083 no of complaint is 2 hrs. 23 min. Though No of Consumer Complaints is increased from FY 17 to FY 18 the average time taken to attend the complaint is 2 hrs. 30 min CESC has taken the following actions to reduce the consumer down time. 1. In FY 2017, 29 No of Service stations were established .In addition to the above, now 43 No of Service stations are established during FY 18 at the Sub-Divisions/Sections level to attend consumer complaints.
7	Directives on Energy Audit Energy Audit of cities / towns:	CESC shall furnish details of feeder-wise energy audit month wise up to September 2018. Soft copy of the same shall be submitted for analysis of the reports. CESC shall furnish the comparative statement of losses recorded in Towns & Cities for the FY18 as against the FY17. **DTCs Energy Audit:** CESC was directed to	Month wise Feeder wise energy audit up to Sep-2018 will be e-mailed for analysis. Comparative statement of losses recorded in Towns and Cities for the FY18 as against the FY17 has furnished. Reasons for not taking up the Energy audit of all DTCs where meter having provided are as follows. ➢ Metered DTCs are idle

		furnish the details of energy audit conducted in respect of DTCs for which meters have been fixed and the remedial measures initiated to reduce losses in those DTCs every month to the Commission regularly. CESC has not submitted the details of energy audit conducted in respect of 57,809 DTCs for which meters have been said to be fixed. It has been reported that the energy audit is conducted only for 8490 (Approximate) DTCs. CESC shall submit the details for not conducting energy audit of all the DTCs for which the meters are fixed along with the time line by which all the remaining DTCs will be metered and audited.	without loads. ➢ Display/MNR problems. ➢ Meter burnt out. ➢ CT failures. ➢ Meters are not synchronized in AFT Web Link. ➢ Communication issues in rural area. Problems in establishing communication with modems are being encountered. Tagging of installations to the DTC is underway and Whenever new DTCs are commissioned. Creating new transformer code and transfer installations to these new DTC could not be carried out easily due to software constraint. Now bulk shifting of installations from one DTC to other is made available in the TRM software. DTC metering is under progress under IPDS and DDUGJY projects.
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. CESC in the tariff filing, in its compliance to implementation of NJY has informed that the IP consumption is calculated based on the energy recorded in the meters fixed to the segregated IP feeders and submitted the details vide letter number 14124 dated 26.10.2018. CESC was directed to submit the feeder-wise, subdivision-wise details in respect of the IP assessment. Instead, CESC has submitted the subdivision-wise assessment. CESC shall comply by submitting the month wise, feeder wise, subdivision wise assessment of IP consumption for FY18 and FY19 up to September, 2018 for consideration.	CESC has taken up 58 numbers of feeders under DDUGJY scheme. The works are awarded on total turnkey basis and are under progress. It is targeted to commission these feeders in March-2019. The month-wise IP consumption data in the specified format for FY-18 is emailed to KERC on 24.12.2018 and the same is enclosed as Annexure-C and for FY-19 till Sep-2018 is under preparation and this will be submitted separately at the earliest.
9	Directive on Lifeline Supply to (Electrification of) un - electrified Households	CESC Mysore, had informed that 44,114 number of HH needs to be electrified and will be completed by December 2018, in the ESCOMs review meeting held on 16.11.2018. But, in the tariff filing, CESC is informing that only 1424 numbers of HH needs to be electrified which will be completed before March, 2019. CESC shall submit the exact figures clearly mentioning the target date for	The electrification of rural households under DDUGJY scheme carried out since march-2017. The progress achieved could be updated in the Soubhagya portal and the data updated upto 13.11.2018 was submitted to ESCOMs review meeting held on 16.11.2018 which was 44,114. However the 42690 no of households which were electrified but not updated in the Soubhagya portal, was updated on 15.11.2018 and the

		achieving 100% electrification.	same has been conveyed via e-mail dated:15.11.2018 to the Hon'ble Commission. The balance 1424 no. of households for which DWA has issued will be completed before March-2019.
10	Directive on Implementation of Financial Management Framework	CESC has to submit the compliance in respect of implementation of Financial Management Framework, on quarterly basis regularly to the Commission. CESC shall submit the detailed analysis and the result of Financial Management Framework Model introduced in its divisions / subdivisions towards improvement of their performances.	Instructions are given to the divisions to monitor the subdivisions. In Corporate office division level performances are reviewed frequently.
11	Prevention of Electrical Accidents	CESC is required to furnish the action plan for rectification of balance hazardous locations / installations identified in its distribution network. CESC has to furnish the summary of the analysis made on the reports submitted by Electrical Inspectorate for FY19 up to September, 2018, action taken to prevent such accidents in future.	To rectify the hazardous locations Replacement of damaged/deteriorated RCC, PSC, I-beam, Tubular, ladder, wooden poles are taken up. • Replacement of deteriorated Aluminum conductor enhancement of size of conductor, Replacement of copper conductor are taken. • Providing intermediate poles to the lengthy line, set-righting of slanted poles, shifting of lines and transformers which are closed to the buildings. • Providing Arial bunched cables to the service mains. • Providing LT kits and MCCB's to the transformers . • Arranging training and awareness program to the field staff.

Errata:

The MYT 5th control period filing includes erratum to correct mistakes on page numbers and the corrected page number sheets are enclosed as Annexure-Q.