

HESCOM

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

1. Sales

A. Sales –other than IP sets

I. Annual Performance Review for FY-18

The Commission, in its Tariff Order, 2016 dated 11.04.2017, had approved total sales to various consumer categories at 10569.56 MU as against the HESCOM's proposal of 10349.12 MU, excluding sales to HRECS & SEZ. The actual sales of HESCOM as per the current APR filing, is 10699.28 MU, indicating an increase in sales to the extent of 129.72 MU as compared with the approved sales. The increase in sales is 141.00 MU in HT-categories and reduction of 11.28 MU in sales to LT-categories. It is noted that, as against approved sales [excluding HRECS sales and supply to SEZ] of 4398.07 MU to categories other than BJ/KJ and IP sets, the actual sales achieved by HESCOM is 4443.96 MU, resulting in the increase in sales to these categories by 45.89 MU. Further, HESCOM has sold 6255.32 MU to BJ/KJ and IP category as against approved sales of 6171.49 MU resulting in increased sales to these categories by 83.83 MU.

The category-wise sales approved by Commission and the actuals for FY18 are indicated in the table below:

Category	Approved	Actuals	Difference (MU)
LT-2a*	1531.53	1456.60	-74.93
LT-2b	20.96	18.5	-2.46
LT-3	470.90	447.73	-23.17
LT-4b	16.79	17.43	0.64
LT-4c	0.98	0.84	-0.14
LT-5	322.30	320.43	-1.87
LT-6	280.24	277.19	-3.05
LT-6	141.40	149.38	7.98
LT-7	26.37	28.25	1.88
HT-1	224.66	234.01	9.35
HT-2a	913.15	1005.39	92.24
HT-2b	130.59	121.8	-8.79
HT-2c	88.59	74.14	-14.45
HT-3a & b	181.27	255.87	74.60

HT-4	13.55	14.59	1.04
HT-5	34.80	21.81	-12.99
Sub total	4398.07	4443.96	45.89
BJ/KJ	197.11	201.2	4.09
IP	5974.38	6054.12	79.74
Sub total	6171.49	6255.32	83.83
Grand total**	10569.56	10699.28	129.72

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

***Excludes sale to HRECS and SEZ.*

From the above table it is noted that the major categories is contributing to the increase in sales as compared with the estimate are IP sets (79.94 MU) , HT-2a(92.24 MU) and HT-3 (74.60 MU). Further, the reduction in sales is mainly in HT 2c (14.45 MU), LT-2a (74.93 MU) and LT-3(23.17 MU).

HESCOM has stated that the variance in sales cannot be explained, in view of diversified nature of HESCOM area. However, HESCOM has stated that, increase in sales to HT-2a category is due to consumers opting for Open Access and that in FY17 under OA, they have consumed 424.67 MU.

The Commission notes that, if consumers opt for OA, there will be decrease in the sales rather than increase in the sale. The reasons for increase in HT-2a sales may be due to some other reasons, which needs to be analysed by HESCOM. Probably, the increase may be due to 70 more installations added to this category than what was approved. **HESCOM shall compute the sale to new the installations during FY18, to justify the increase.** Further, in the case of LT-2a & other categories, the decrease may be due to reduced specific consumption and use of energy efficient appliances like LED bulbs, EE fans etc. **HESCOM, henceforth, shall analyse the impact of DSM programs quantifying the energy and cost savings due to such programmes.**

Further to validate the sales, HESCOM shall furnish the following information:

- a) HESCOM has furnished the overall sales under OA/wheeling for FY12 to FY19(upto Sep, 2018). In order to analyze reduction in HT sales, HESCOM shall furnish the breakup of sales data of HT2(a), HT2(b), HT 2(c) and HT-4 categories along with the consumption from open access / wheeling for the period 2015-16 to 2017-18 in the following format:

HT2A

Year	Sales by HESCOM	Energy procured by HT Consumers under open access / wheeling	Total of HESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				
2017-18				

HT2B

Year	Sales by HESCOM	Energy procured by HT Consumers under open access / wheeling	Total of HESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				
2017-18				

HT2C

Year	Sales by HESCOM	Energy procured by HT Consumers under open access / wheeling	Total of HESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				
2017-18				

HT4

Year	Sales by HESCOM	Energy procured by HT Consumers under open access / wheeling	Total of HESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				
2017-18				

B. Sales to IP sets for FY18:

- a. The Commission notes that, the overall sales to IP sets for FY18 at 6,054.12 MU have increased by 79.74 MU (1.33%), as against the approved sales of 5,974.38 MU as per the Tariff Order dated 11th April, 2017 for the FY18. **The HESCOM shall explain for increase in sales over the approved figures.**
- b. Further, the Commission had approved the specific consumption of IP sets as 8,244 units / installation / annum for the FY18. As per the consumption reported in the filing, the specific consumption works out to 8,690 units / installation / annum for the FY18. This indicates an increase of 446 units / installation / annum in specific consumption. Further, the actual number of installations for the FY18 has decreased by 38,131 numbers as against the approved number of installations of 7,34,778. **The HESCOM shall furnish the detailed reasons for increase in specific consumption as well as total IP-consumption despite decrease in number of installations, for the FY18.**
- c. During the KPTCL and the ESCOM's Review meeting held on 16.11.2018, the HESCOM has submitted that out of 7,98,615 number of IP sets for which GPS survey was completed, 18,045 (15967+2078) have been declared as not-in-use / dried up installations. That means 18,045 number of installations shall have to be deducted from the number of installations for the FY18 (from April, 2017 to March, 2018). **Accordingly, month-wise and total IP consumption should have to be revised. The HESCOM shall submit the revised consumption based on the number of installations for the FY18, taking into account GPS survey data.**
- d. The Commission, in its Tariff Order dated 14th May 2018, had directed the HESCOM to furnish feeder-wise IP-set consumption based on feeder energy meter data by deducting the actual energy losses prevailing in 11kV line, distribution transformers and LT line, to the Commission, every month in respect of agriculture feeders segregated under NJY. Vide e-mail dated 03.12.2018, the HESCOM has submitted the consolidated consumption details for the FY18. According to which the total number of consumers as at

the end of March 2018 are 6,16,865 and the consumption / sales to IP sets is 5940.1 MU. There are inconsistencies in the number of IP set installations furnished in the MYT filing, GPS survey data and the month-wise, feeder-wise data furnished by the HESCOM in the e-mail. Therefore, the HESCOM is required to revise the IP consumption for the FY18, as per the energy recorded on the segregated feeders duly indicating the energy input to the feeders on the basis of energy meters reading data **(initial reading-final reading* constant)**.

The HESCOM shall furnish month-wise data in support of its claims of IP-sets consumption for the FY18 duly considering the above issues, as per the format given in preceding tariff orders.

C. Category-wise sales for the Control Period FY20-FY22:

- a) The HESCOM, in their filing have stated that the number of installations for FY19 & for the control period FY20-FY22, is estimated considering the five-CAGR for the period from FY14 to FY18, except in the case of BJ/KJ, HT-3(a)(ii) and HT-4, for which the CAGR is negative. For BJ/KJ, and HT-4 categories 1% growth is considered and for HT-3(a)(ii), HESCOM has proposed addition of one-installation per year.

Also, the Commission has noted that for energy sales estimate, CAGR for the period FY14 to FY18 is considered, except in the case of HT-3b, which has negative growth. For this category, absolute percentage is adopted, considering positive growth in first half of FY19.

- b) The observations of the Commission on sales forecast for FY20 are as follows:
1. LT(1) – BJ/KJ Category:
HESCOM has considered additions in installations in this category. Is there any GoK scheme under which BJ/KJ is being proposed?
 2. In case of LT-3(a)(iii), though the additions in installation is considered, negative growth is considered for sales. HESCOM shall explain this.

3. The table indicating the growth rates for the number of installations is furnished as 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 HESCOM for control period
LT-2a	3.27	4.37	4.58	4.38
LT-2b	8.15	8.57	7.15	8.71
LT-3	5.31	5.41	5.39	5.47
LT-5	6.00	5.67	5.36	5.65
LT-6 WS	11.17	10.77	11.48	10.88
LT-6 SL	4.32	5.09	5.93	4.60
HT-1	12.18	12.39	15.64	12.08
HT-2 (a)	8.91	10.14	11.61	9.50
HT-2 (b)	3.87	7.60	12.45	5.87
HT-2 (c)	-	11.62	9.52	15.85
HT-3(a)& (b)	14.09	11.27	14.60	13.51
HT-4	-12.11	-1.02	6.67	3.13

c) It is noted that, the growth rate considered for HT-1 and HT-2b is lower than the previous year's growth rate and the CAGR for the period 2014-15 to 2017-18. Therefore, the HESCOM may consider revising the data for these categories.

d) The table indicating the growth rates for the energy sales is furnished as 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 BESCO for control period
LT-2a	3.57	4.34	2.00	5.18
LT-2b	21.25	10.58	10.05	12.90
LT-3	5.84	6.46	5.17	7.20
LT-5	1.71	0.49	1.29	1.59
LT-6 WS	10.18	10.89	1.96	9.97
LT-6 SL	4.04	3.91	1.81	5.60

HT-1	5.50	6.09	8.62	6.06
HT-2 (a)	0.29	2.78	19.14	3.14
HT-2 (b)	2.89	2.07	0.98	3.44
HT-2(c)	-	16.10	11.79	21.70
HT-3(a)& (b)	13.70	23.04	19.00	15.17
HT-4	-6.04	-2.41	0.62	1.02

It is noted that, the growth rate considered for LT- 2(a), LT-3, LT-6 SL, HT-2a, HT-2b and HT-2c categories is higher, considering the CAGR. HESCOM may consider revising the data for these categories.

For HT2(a) category, the sales estimate based on the analysis of open access impact shall be considered. HESCOM 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 HESCOM in FY18 to the total sales of FY18 including OA/wheeling sales. HESCOM may compute HT-2a sales on the above method and furnish the data.

e) Sales to IP Sets the FY20 to FY22:

- i. The HESCOM was directed to furnish feeder-wise IP- set consumption based on the feeder energy meters' data to the Commission, every month in respect of agriculture feeders segregated under NJY. But, the data submitted by HESCOM vide e-mail dated 06.12.2018 is inconsistent in respect of the number of feeders, IP installations etc.,
- ii. HESCOM has not taken into account the actual number of IP installations added and consumption of IP installations during the period April, 2018 to September, 2018 and projected the consumption for FY19 and onwards.

Therefore, HESCOM is required to justify its projection of the No. of IP-installations and consumption for the FY19 to FY22 and submit the revised projections based on the energy recorded on the segregated agricultural feeders only.

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

a. No. of Installations

Category	2016-17 Actuals		2017-18 Actuals		2018-19	
	As on 30 th Nov 2016	As on 31 st March 2017	As on 30 th Nov 2017	As on 31 st March 2018	As on 30 th Nov 2018	As on 31 st March 2019 (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<=40						
BJ/kJ > 40 units/month						
IP sets-LT-4a						
Sub Total (BJ/KJ and IP)						
Grand Total						

b. Energy Sales

Category	2016-17 Actuals		2017-18 Actuals		2018-19	
	1 st April 2016 to 30 th Nov 2016 (cumulative)	1 st Dec 2016 to 31 st March 2017 (cumulative)	1 st April 2017 to 30 th Nov 2017 (cumulative)	1 st Dec 2017 to 31 st March 2018 (cumulative)	1 st April 2017 to 30 th Nov 2018 (cumulative actuals)	1 st Dec 2018 to 31 st March 2019 (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<=40units/month						
BJ/kj > 40 units/month.						
IP sets LT 4a						
Sub Total (BJ/KJ and IP)						
Grand Total						

D. Sales to HRECS:

HESCOM has indicated the energy sold to HRECS for FY18 as 332.61 MU at page 69 of the filing. Though the HRECS in its filing has indicated the same as 332.71 MU, it has stated that the above includes energy requirement of AEQUS of 18.43 MU also.

For FY19 to FY-22, HRECS has considered the following quantum of purchase from HESCOM (including AEQUS sales):

	FY19	FY20	FY21	FY22
HRECS Estimate-MU	365.80	396.22	433.99	479.43

HESCOM shall confirm, whether the above quantum of HRECS is considered, while arriving at the overall power requirement for HESCOM.

2. Power Purchases:

a) APR: Power Purchase Cost 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.
- ii. A separate statement showing the variable cost in the ascending order from different sources of power shall be attached. Any deviation from the merit order scheduling should be explained fully.
- iii. The PGCIL Charges have increased by around 100%, the reason for such an increase in the charges shall be explained with details. This has been increasing year after year which is resulting in huge burden being passed on to the end consumers. Whether, HESCOM has taken any initiative to address this issue of abnormal increase in the PGCIL POC charges, may be informed to the Commission.
- iv. The HESCOM has considered 1015.38 MU and Rs. 421.93 Crores as inter-ESCOMs' energy charges for Energy balancing, as indicated in D1-Format. The basis for payment of this amount should be furnished besides submitting a reconciliation statement for the energy balancing among the ESCOMs.
- 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 (in between compared with MESCOM/CESC-Mysore). The HESCOM 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 HESCOM (Rs/kWh)	Avg. P.P Cost as per BESCOM/ MESCOM /CESC-Mysore (Rs/kWh)	HESCOM's Avg. P.P. Cost is higher by (Rs/kWh)
	<u>KPCL-Thermal</u>			
1	RTPS Unit I to VII	4.27	3.91	0.36
2	BTPS Unit I	5.41	4.61	0.8
3	BTPS Unit II	5.57	5.05	0.52
4	BTPS Unit III	6.33	5.51	0.82
5	Raichur Power Corporation Ltd (Yermarus)	10.80	7.00	3.8
	<u>KPCL-Hydel</u>			
1	Sharavathi Hydro Electric Project	0.54	0.42	0.12
2	Varahi Hydro Electric Project	1.45	1.17 (CESC-Mysore)	0.28
3	Kadra Power House	2.19	0.95	1.24
4	Kodasalli Power House	1.78	0.72	1.06
5	Gerusoppa Power House	2.16	0.93	1.23
6	Ghataprabha Power House	2.10	1.42	0.68
7	Bhadra	5.00	3.23 (MESCOM)	1.77
8	Almati Power House	1.77	1.36	0.41
9	MGHE	0.90	0.77 (MESCOM)	0.13
10	VVNL Hydel Munirabad	0.99	0.77	0.22
	<u>CGS</u>			
	NTPC-Talcher	7.90	2.05	5.85
	NTPC-Simhadri	4.59	4.25	0.34
1	NLC TPS-Stage 1	4.31	4.11	0.2
2	NTPL	5.81	5.18	0.63
3	MAPS	2.95	2.79	0.16
4	Kudankulam	4.52	4.15	0.37
5	NTPC- Kudugi	6.37	5.45	0.92
6	Damodar Valley Corporation	3.93	3.71	0.22
	NTECL Vallur	5.33	5.00	0.33
	<u>Major IPPs</u>			
1	M/S UPCL, Padubidri	5.24	5.02	0.22
	<u>Others</u>			
1	Priyadrashini Jurala Hydro Project	8.10	7.13	0.97

vi. In respect of the following Generating Stations, the rates as per D-1 Format are higher than the rates approved by the Commission. The per unit cost in respect of NCE and Short term/Medium term are higher as compared with

the rates approved by the Commission for FY18. The HESCOM shall furnish the basis and reasons thereof:

Sharavathi, Kalinadi(Nagajari), Kadra Power House(KPH), Kodalalli Power House(KDPH), Gerusoppa Power House(GPH), Ghataprabha Hydro Electric Project(GHEP), Bhadra Power House (BPH), Almatti Power House(ADPH), MGHE Jogfalls, Shivasamudram, Munirabad, BTPS U-I to III, Yermarus, NTPC - TSTPS-2D(Talcher), NTPC-SMTPS-2D(SIMHADRI), NTPC Kudgi Stn 1, NLC TPS I EXP, NLC TPS 2 (Stage1&2+TPS 2 EXP), NLC TPL, MAPS (NPCIL), Kaiga (NPCIL) Unit 1 & 2, Kudamkulam, DAMODAR VALLEY CORPORATION, NTECL Vallur, Priyadrashini Jurala Hydro Project and UPCL.

b) Observations on Power purchase for FY20 – FY22:

1. HESCOM has furnished the CAGR projections to estimate the quantum of energy considered for the control period FY20 to FY 22. The projection made for the Control Period FY20 to FY22 for the quantum of energy is different from projection made in the Perspective Plan earlier submitted to the Commission. HESCOM shall furnish the reasons for the changed quantum of energy and also furnish the Generator-wise, Month-wise projections- in capacity and energy (in terms of MW and in terms of MU) for the Control Period. 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. HESCOM shall give separate details for the quantum of energy requirement for Hukkeri and AEQUS.
3. HESCOM shall furnish the basis for considering the Fixed Cost (FC) and the Variable Cost(VC) in respect of BTPS unit -3, YTPS.
4. HESCOM shall furnish the basis and computation sheet for considering the FC and VC for UPCL.
5. HESCOM has considered the same amount in respect of POSOCO charges payable for each of the years of the Control period (FY21-22) ignoring the

likely inflation/ revision of charges during the control period. The HESCOM shall furnish the reasons for same. Also the correct amounts to be considered for the ARR may be furnished.

6. Basis to consider the increase in the PGCIL charges for every year for the control period FY20 to FY22 may be furnished.
7. The HESCOM shall furnish the reasons for not considering KPTCL, PCKL, SLDC charges in the D-1 Format.
8. HESCOM shall furnish the capacity and quantum of energy to be procured in respect of new RE projects for which it has executed the PPAs.

3. RPO Compliance :

a. FY18:

The Commission notes that HESCOM has submitted the RPO data for both solar and non-solar compliance for FY18. **Excluding, hydro the input energy (12716.05-1222.64 MU as per table at Page-62-69) should be 11,493.41 MU whereas HESCOM has indicated the same as 11975.22 MU at page 75. Further as per D-1 format the energy purchased is 12731.11 against 12716.05 MU indicated at page-69. The data shall be reconciled.**

As per the power purchase details furnished for FY18, it is noted that the total solar energy purchased including NTPC VVNL is 445.13 MU [KPCL:3.01 MU, W & B KBJNL;0.07 MU, banked & infirm energy Athavan solar:0.04 MU and at SI.NO.39 pg-57, total solar including NTPC VVNL & farmers scheme:442.01 MU], whereas HESCOM has indicated it as 460.08 MU for RPO. HESCOM shall reconcile the figures with audited data and resubmit the RPO statement.

Similarly, the Non-solar energy purchased would be 2116.34 MU [Wind energy 1806.46 MU, banked energy 16.81 MU, infirm energy page-67 – 4.91, mini-hydel 54.19 MU, co-gen 233.97 MU], whereas HESCOM has indicated it as 2430.13 MU for RPO. HESCOM shall reconcile the figures with audited data and resubmit the RPO statement.

- b. For validating the RPO compliance and to work out APPC, HESCOM 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. Crores
1	Total Power Purchase quantum from all sources excluding Hydro energy		
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. Crores.
1	Total Power Purchase quantum from all sources excluding Hydro energy		
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 [No.2+ 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 % [No.12/No.1]*100		

4. RPO-FY19 to FY22

HESCOM shall furnish the estimates for complying with solar and non-solar RPO for the period FY 2018-19 to 2021-22.

5. Wheeling Charges

HESCOM has proposed wheeling charges of 26.44 paise/unit and 61.70 paise/unit respectively for HT network and LT network. Further HESCOM has proposed technical losses of 7% for HT and 8% for LT network.

The distribution ARR at page 168 is indicated as Rs. 1158.44 Crs, whereas for computing wheeling charges it is considered as 1047.77 Crs. The same shall be reconciled and the tables shall be accordingly modified.

HESCOM has stated that the wheeling charges is applicable to all open access/wheeling transactions except for energy wheeled from NCE sources to the Consumers in the State. However, HESCOM has not indicated, in its petition, the charges applicable to RE sources. The same should be furnished with reference to the relevant Orders of the Commission.

6. Cross subsidy surcharge:

For FY19 HESCOM has proposed the following CSS:

Voltage level	HT-1	HT-2a	HT-2b	HT-2C	HT-4	HT-5
66kV & above	39.35	230.01	372.83	214.04	160.69	1112.94
HT-11kV or 33 kV	-17.17	173.49	316.31	157.53	104.17	1056.43

HESCOM shall clarify as to whether the CSS has been computed as per the MYT Regulations wherein, the methodology specified in the Tariff Policy, 2016 is

adopted. If not, HESCOM shall file CSS as per the above Regulations. Further, if the CSS computed is negative, it shall be made zero.

7. Capital Expenditure:

a) APR for FY18:

In Tariff Order 2017, the Commission decided to consider the MYT approved capex of Rs.743.55 Crores only, subject to prudence check and directed that, HESCOM should meet any additional capex required during FY18, only through re-appropriation of approved amounts within the overall capex and not to seek the approval of the Commission in the middle of the year for additional/higher capex. However, HESCOM has incurred, a capital expenditure of Rs. 1102.19 Crore for FY18. Item wise difference between the above components with the Commission approved Capex is shown as below:

Sl. No.	Scheme	KERC Approved Capex for FY 18	Achievement Financial	Difference b/w KERC approved and Achievement Financial
1				
a	Gangakalyan IP sets	25.00	88.59	63.59
b	Special Development Plan for backward Talukas under Nanjundappa scheme(SDP)	20.00	15.24	-4.76
c	Electrification of Hamlets(Not covered under RGGVY)	1.00	0.01	-0.99
d	Electrification of HB/DB/JC/AC (Habitations) under SCP (Not covered under RGGVY)	0.50	11.27	10.77
e	Electrification of TC(Habitations) under TSP (Not covered under RGGVY)	0.50	38.21	37.71
f	Electrification of BPL Households (Not covered under RGGVY)	1.00	-	-1.00
g	Water works	5.00	0.24	-4.76
h	RGGVY	3.00	6.26	3.26
i	DDGUVY	100.00	16.55	-83.45
j	DDG (Phase-1 & Phase-2)			
k	Rehabilitation of flood affected villages(special programme).	-	-	-
i	Sub - total	156.00	176.37	20.37

2				
a	E & I works.	25.00	52.59	27.59
b	Energisation of IP sets under general.	-	60.89	60.89
	Energisation of IP sets as per GOK	125.00	123.12	-1.88
c	Service connections other than IP/BJ/KJ/Water works.	30.00	54.28	24.28
d	Construction of new 33 KV stations and lines.	4.00	4.13	0.13
e	Augmentation of 33 KV stations.	3.00	11.20	8.20
f	Construction of 11 KV lines for 33 KV / 110 KV sub-stations.	5.00	16.74	11.74
g	Nirantar Jyoti Yojana.	80.00	77.66	-2.34
	Providing prepaid meters to temporary installations		3.97	3.97
	Providing numerical relays to provide power supply to farm houses	-	-	0.00
	Providing 16KVA Transformers for A/P/S to farm houses in Chikkodi Division	-	-	0.00
h	R- APDRP.	20.00	2.52	-17.48
i	R-APDRP exclusively for Modem and meters	1.00	-	-1.00
	IPDS IT imitative Phase II	-	-	0.00
	IPDS	50.00	14.22	-35.78
ii	Sub - total	343.00	421.32	78.32
3				
a	Providing meters to un-metered IP sets.	0.05	-	-0.05
b	Providing meters to un-metered BJ/KJ installations.	-	1.75	1.75
c	Replacement of faulty / MNR energy meters by static meters.	5.00	5.93	0.93
d	Replacement of more than 10 year old electromechanical energy meters by static meters.	50.00	-	-50.00
	Fixing of boxes to Single Phase Meters	-	-	0.00
e	DTC's metering (Other than APDRP)	25.00	20.15	-4.85
f	Replacement of 33 KV lines Rabbit conductor by Coyote conductor.	5.00	0.52	-4.48
g	Replacement of 11 KV lines Weasel conductor by Rabbit conductor.	10.00	6.44	-3.56
h	Replacement of age old LT conductor by Rabbit conductor.	6.00	10.34	4.34
i	HVDS (Pilot project for 1	1.00	-	-1.00

	district/year)			
j	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubli and Belgaum cities.	100.00	183.33	83.33
iii	Sub - total	202.05	228.46	26.41
4				
a	IT initiatives, automation and call centre	1.00	8.65	7.65
b	Installation of energy efficient motors	-	-	0.00
c	Smart grid/sprinkler/drip irrigation system	0.50		-0.50
d	Providing solar roof tops to HESCOM office buildings	3.00	-	-3.00
e	Establishing ALDC & SCADA.	1.00	0.07	-0.93
f	Thermal Imaging and GIS Mapping of DTCs	5.00		-5.00
g	Special pilot project for Strategic Business Centre at Shiggaon Sub-Division	1.00	-	-1.00
	Smart City /Smart Meters	-	-	0.00
	DSM Projects	-	-	0.00
iv	Sub - total	11.50	8.72	-2.78
5				
a	Replacement of failed distribution transformers.	5.00	111.58	106.58
b	Replacement of Power Transformers.	2.00	0.50	-1.50
c	Replacement of old and failed equipments and other works of existing 33 KV stations and lines.	3.00	9.04	6.04
d	Preventive measures to reduce the accidents. (Providing intermediate poles replacement of deteriorated conductor, DTC earthing etc.)	5.00	15.93	10.93
e	T&P materials.	1.00	5.24	4.24
f	Creating infrastructure to UAIP Sets	10.00	108.30	98.30
g	Civil Engineering works.	5.00	23.29	18.29
	Corporate Office Reserve for Emergency	-	-	0.00
	Others	-	-6.56	-6.56
v	Sub - total	31.00	267.32	236.32
	Total (i+ii+iii+iv+v)	743.55	1102.19	358.64

It is seen from the above Table that HESCOM has incurred capex exceeding the Commission approved capex by Rs. 359 Crores. It is to be pointed out here that the approved capex is being factored in the fixation of the retail tariff

supply tariff, which enables the ESCOMs to recover the cost of financing of capex from the retail tariff. The Capex incurred without the approval of the Commission (at the time of approval of ARR and the retail supply tariff) will not get reflected in the tariff thus affecting the finances of the ESCOM. Hence HESCOM shall furnish the reasons in detail for exceeding the approved capex and incurring of capex without prior approval. **HESCOM shall note that Commission will be constrained to disallow the expenses not covered under the Approved ARR.**

The HESCOM shall also furnish the details of sources of funding of capex (break-up of amounts utilised from equity, loans, grants from GoK/ Gol, and internal sources like depreciation, retained earnings etc.) for the capex incurred during the FY18, against each of the category of works.

b) Capex for Control Period FY20-22:

HESCOM shall provide necessary justification on each of the works in terms of its purpose, requirement, cost and timelines for completion along with the No. of works to be taken in each of the year for FY19 to FY24. The HESCOM shall also furnish the sources of funding with the break up as indicated in the previous para.

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

1. Distribution Losses: HESCOM in its application, as per the audited accounts, has reported the actual distribution loss at 14.76%, as against 15.50% approved by the Commission, in its Tariff Order dated 11th April 2017, which is within the approved loss level for FY18. Further, HESCOM has projected the distribution losses of 14.90%, for FY19 and 14.80%,14.70% and 14.60% for FY20-22. The Commission notes that considering the actual distribution losses of 16.89% for FY16 and 15.56% achieved by the HESCOM, the projected losses with the meagre reduction of 0.10% in each year for FY20-22 even with the proposed substantial amount of Capex of Rs.1299.02 Crores for FY19 and Rs.1877.75

Crores, Rs.1567.00 Crores and Rs. 1329.64 Crores for FY20-22 is insignificant. HESCOM may reconsider the projected distribution losses for FY20-22.

- 2. O & M Expenses:** HESCOM, in its APR filing, has claimed an amount of Rs. 874.09 Crores as the O&M expenses as against the approved amount of Rs. 744.36 Crores for FY18. The Commission notes that, as per the audited accounts for FY18, the actual employees cost for FY17 and FY18 are Rs.525.44 Crores and Rs.687.72 Crores respectively. Thus, there is an increase in the employees cost by Rs.162.28 Crores for one year. HESCOM, in its audited accounts for FY18, under note, has indicated that the pay scale revision to its employees has been given effect to. HESCOM shall furnish the actual amount of pay revision arrears paid to the employee for the period from 01.04.2017 to 31.03.2018 and included in the audited account for FY18.
- 3. Terminal Benefits:** HESCOM its filings of APR for FY18 and ARR for FY20-22 has claimed Rs.110.31 Crores, Rs.131.30 Crores, Rs.143.42 Crores, Rs.156.66 Crores and Rs.171.12 Crores towards terminal benefits under employee cost. The HESCOM shall furnish the computation sheet for the same along with submission of the relevant Actual Valuation Report.
- 4. Expenditure on Civil Engineering Works:** The HESCOM in its ARR filings for FY18 has claimed Rs.23.29 Cores as the capital expenditure on civil Engineering works as against the approved amount of Rs.5 Crores. HESCOM shall furnish the break-up details for the same. Further, the HESCOM has also projected Rs.42.84 Crores for FY 19 and Crores Rs.40 Crores, Rs.30 Crores and Rs.30 Crores towards civil engineering works for FY 20 to FY 22. HESCOM for having projected substantial amounts under this item, shall furnish the details of the works proposed for FY19 to FY22.
- 5. Energisation of IP sets:** The HESCOM, in its ARR filings has claimed Rs.60.89 Cores as the capital expenditure on energisation of IP sets under general category for FY18, though the Commission has not approved any amount under this item. Further, the HESCOM has also projected Rs.110 Crores for FY19 and Rs.120 Crores Rs.120 Crores, Rs.130 Crores under the same item for FY 20 to FY 22 respectively. The HESCOM for having incurred /projected substantial amounts

under this item, shall furnish the details of the works undertaken/proposed for FY18 to FY22.

- 6. Regularization of Unauthorised IP sets** The HESCOM in its filing of APR for FY18, has claimed Rs.108.30 Crores as the capital expenditure incurred for regulations of unauthorised IP set (UNIP) installations as against Rs.34 Crores approved by the Commission for FY18. Further, the HESCOM has proposed Rs.15 Crores for FY19 and Rs.20 Crores for FY20 as the capital expenditure for regulations of UNIP installation. The Commission notes from the filing that, about 95746 UNIP installations are yet to be regularised as on 31.07.2018. the HESCOM shall furnish the Division-wise details of the number of unauthorised IP sets existing, regularised during FY18 and in FY19 and the balance number of UNIP installations yet to be regularised. For the balance work, HESCOM shall furnish the division-wise action plan for regularisation, of UNIP installations, both in numbers and, the amount of capex required and, accordingly revise and submit the Capex programme for FY19-22.
- 7.** The HESCOM in its filings under format D9 has clubbed the both the long term capital loans and the short term loans for FY18 to FY22. HESCOM 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 shall include the opening balance, receipt, repayment, term of loan, rate of interest, purpose of loan, interest amount and the closing balance of loans.
- 8.** The HESCOM shall furnish the break-up details of for having incurred the expenditure towards consumer's relation/education during FY18 and up to November, 2018 during FY19.
- 9.** The HESCOM shall furnish the details of subsidy pertaining to the past period, if any, received from the GoK during FY18.
- 10. Submission of AG Audited Accounts:** The HESCOM shall furnish the C.A.G.s audited accounts for FY 18.

- 11. Addl. Equity Infusion by the GoK:** The HESCOM shall furnish the amount of equity infused by the GoK in various Government Orders and the actual date of receipt during FY 18 and up to date during FY 19.
- 12. Replacement of faulty Transformers:** The HESCOM as against the approved amount of Rs.5 Crores, has claimed Rs.111.58 Crores towards replacement of faulty distribution transformers during FY18. Further, The HESCOM has informed in the filings, that for the same work, Rs.71.61 Crores has been incurred up to September,2018 during FY19. Any failed distribution transformer shall have to be replaced with a repaired transformer and the expenditure incurred on the repair to transformer need to be charged as revenue expenditure. HESCOM shall furnish the details with reasons for having incurred such a huge amount with cash outflow for replacement of failed transformers during FY18 and FY19. The HESCOM shall also furnish the details of capacity-wise transformers failure, repaired, repaired transformers issued to the works and the balance of transformers yet to be repaired during FY18 and also the status thereon up to 30.11.2018 during FY19. The
- 13. Revenue Projections for FY20:** In D-21 Format, the HESCOM has considered an abnormal/subnormal average sanctioned load per installation in respect of the following tariff categories. This needs to be examined and the correct sanction load details shall be submitted to the Commission.

Tariff Category	Average load per installation
a) LT4 (c)(ii)- Private Nurseries –Above 10HP	5.71 HP
b) LT 5(a)- Industries	5HP - 40HP -9.85 HP
c) LT5 (b)- Industries	Up to 5 HP - 1.91 HP
d) HT 5 Temporary	1282 HP

14. 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. In order to continue the recovery of additional surcharge, the HESCOM shall furnish the details of computation of Additional

Surcharge as per the 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.

15. Compliance to directives issued by the Commission:

Sl. No.	Directives Issued by the Commission	Observation made
1	Consumer interaction meeting at Subdivision level.	HESCOM was directed to conduct consumer interaction meetings at Subdivision level chaired by the SEE once in a quarter to redress the consumer complaints. HESCOM has submitted the summary of consumer interaction meetings conducted in all the subdivisions during FY18 and 1 st & 2 nd quarter of the FY19 in its filing. If such meetings are conducted on only one day of a month in its entire area covering all subdivisions, it is not clear as to how SEE or EE can attend and chair such meetings. The dates of such meetings in subdivisions should have been spread over in a quarter so that SEE or EE can attend and chair the meetings. The HESCOM shall clarify this and submit the details of CIMs conducted in each of the subdivisions indicating the date and the officers who has chaired the CIMs. The HESCOM shall furnish compliance thereon.
2	Directive on preparation of energy bills on monthly basis by considering 15 minute's time block period	HESCOM shall furnish the month-wise details of number of open access consumers sourcing power from power exchange, open access units scheduled / consumed in MU and illegally banked energy, if any for FY18 along with the details of revenue gain.

Sl. No.	Directives Issued by the Commission	Observation made
3	Directive on Energy Conservation	<p>The HESCOM was directed to service all the new installations only after ensuring that the BEE ***** (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant consumers' premises and to service all streetlight installations with LED / energy efficient lamps.</p> <p>The HESCOM has not submitted compliance regularly on the above directive. Has not informed on the action taken while servicing the installations with EE appliances, especially street lights.</p> <p>HESCOM has not indicated in its compliance, measures taken to ensure use of five star rated equipment in all the existing domestic, commercial and industrial consumers. The HESCOM shall submit the compliance thereon.</p>
4	Directive on implementation of Standards of Performance (SoP)	<p>The HESCOM was directed to display the SoP parameters in all its O&M Subdivisions and O&M Sections and submit the quarterly progress. But the HESCOM is not submitting the compliance periodically. HESCOM shall submit the compliance regularly.</p>
5	Directive on use of safety gear by linemen	<p>HESCOM is not submitting the quarterly compliance report to the Commission.</p> <p>From the statistics furnished in the ESCOMs review meeting held on 16.11.2018, 48.43% of the linemen staff are not provided with the safety gear. HESCOM shall submit the compliance and the definite timeline for providing a complete set of safety gear to all the linemen. Details of the action taken on the erring staff shall also be furnished.</p>

Sl. No.	Directives Issued by the Commission	Observation made
6	Directive on providing Timer Switches to Street lights by ESCOMs	<p>The HESCOM has not submitted the quarterly compliance report in respect of installation of timer switches, to the Commission.</p> <p>As per the statistics furnished in the tariff filing, 19,203 SL installations are required to be provided with timer switches.</p> <p>HESCOM 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.</p> <p>HESCOM shall submit the compliance on the same.</p>
7	Directive on Load shedding	<p>The HESCOM 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. HESCOM shall submit the details of the number of consumers in its jurisdiction, and the percentage of the consumer's (mobile numbers) details available in the system.</p>
8	Directive on establishing a 24 X 7 fully equipped centralized consumer service centers	<p>The HESCOM 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.</p> <p>HESCOM was directed to reduce the consumer downtime to address the complaints. HESCOM is</p>

Sl. No.	Directives Issued by the Commission	Observation made
		<p>directed to report the average time taken to attend to a complaint as at present and the efforts made to reduce the downtime further in future.</p> <p>The HESCOM shall furnish compliance in this regard. Comparison of the downtime analysis for FY17 and FY18 shall be furnished.</p>
9	Directives on Energy Audit	<p><u>Energy Audit of cities / towns</u></p> <p>The HESCOM is not furnishing the energy audit reports regularly to the Commission. HESCOM shall furnish details of feeder-wise energy audit as per the formats prescribed by the Commission vide letter No. KERC/D/137/14/91 dated 20.04.2105 along with the details of measures initiated to reduce loss levels wherever the same are above 15% up to September, 2018.</p> <p>HESCOM shall furnish the comparative statement of losses recorded in Towns & Cities for the FY18 as against the FY17.</p> <p><u>DTCs Energy Audit:</u></p> <p>HESCOM was directed to 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.</p> <p>HESCOM has not submitted the details of energy audit conducted in respect of 59,705 DTCs for which meters</p>

Sl. No.	Directives Issued by the Commission	Observation made
		<p>are said to have been fixed.</p> <p>HESCOM shall submit the details of energy audit conducted for the metered DTCs and the timeline by which all the remaining DTCs will be metered and audited.</p>
10	DSM in Agriculture	<p>Commission had directed HESCOM, to expedite the implementation of DSM project in Nippani and Byadagi subdivisions, complete it and submit the compliance within 3 months from the date of the tariff order dated 14.05.2018.</p> <p>In the MYT filing, HESCOM is informing that it has taken up the project in Nippani and Byadagi as a pilot project and completed replacement of 590 old pump sets by new energy efficient pump sets and addressed a letter No. HESCOM/MD/PS/22492 dated 09.12.2015 to the Additional Chief Secretary, Energy Department, GoK.</p> <p>As directed by the Commission, in the tariff order dated 14.05.2018, HESCOM shall submit the compliance immediately.</p>
11	Directive on Lifeline Supply to (Electrification of) un - electrified Households	<p>In page number 38 of the MYT filing, HESCOM has mentioned that 25 un-electrified villages in Uttara Kannada District and 5 in Belagavi Districts are electrified on 31.12.2018. HESCOM shall submit clarification on the subject.</p> <p>Huge number of un-electrified households, 1,32,362 are found to be existing in HESCOM area with inordinate delay in electrification of these households. HESCOM</p>

Sl. No.	Directives Issued by the Commission	Observation made
		shall adhere to the timeline submitted to complete the task i.e., 31.03.2019.
12	Directive on Implementation of Financial Management Framework	<p>HESCOM has to submit the compliance in respect of implementation of Financial Management Framework, on quarterly basis regularly to the Commission.</p> <p>HESCOM shall submit the detailed analysis and the result of Financial Management Framework Model introduced in its divisions / subdivisions to improve their performances at least for FY18.</p> <p>Also, HESCOM shall submit the reasons for not implementing the directive.</p>
13	Prevention of Electrical Accidents	<p>HESCOM is required to furnish the details of number of hazardous locations / installations identified in its distribution network and the number of such installations rectified in the FY 18 and in the FY19 up to September, 2018, besides giving an action plan to rectify them.</p> <p>HESCOM 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.</p>
