

HESCOM

Preliminary Observations on the Applications filed by the HESCOM for approval of APR for FY21 and ARR of FY23-FY25 & Retail Supply Tariff for FY23 under MYT Framework

A Observations on Annual Performance Review for FY21

1. Sales to different categories other than IP Sets for FY21:

- a. The Commission, in its Tariff Order, 2020 dated 04.11.2020, had approved total sales to various consumer categories for FY-21, at 12348.77 MU as against the HESCOM's proposal of 13230.18 MU, excluding sales to HRECS & SEZ. The actual sales of HESCOM as per the current APR filing [D-2 format], is 10974.35 MU, indicating decrease in sales to the extent of 1374.42 MU as compared with the approved sales.
- b. The category-wise sales approved by Commission and the actuals for FY21 are indicated in the table below:

Category	Sales in MU		
	Approved	Actuals	Difference (Actuals-Approved)
LT-1 BJ/KJ above 40 units/month	43.91	70.49	26.58
LT-2a	1556.28	1638.55	82.27
LT-2b	23.06	14.83	-8.23
LT-3	520.78	462.51	-58.27
LT-4b	16.40	14.64	-1.76
LT-4c	0.90	0.85	-0.05
LT-5	337.09	311.10	-25.99
LT-6	385.95	335.62	-50.33
LT-6	158.89	152.20	-6.69
LT-7	39.40	31.73	-7.67
HT-1	315.10	331.99	16.89
HT-2a	1307.45	945.43	-362.02
HT-2b	138.29	101.71	-36.58
HT-2c	100.18	59.67	-40.51
HT-3a & b	443.76	321.58	-122.18
HT-4	14.90	16.72	1.82

HT-5	32.46	26.93	-5.53
Sub total	5434.80	4836.55	-598.25
BJ/KJ	199.94	198.98	-0.96
IP	6714.03	5938.82	-775.21
Sub total	6913.97	6137.80	-776.17
Grand total**	12348.77	10974.35	-1374.42

****Excludes sale to HRECS and SEZ.**

- c. The Commission notes that except in case of BJ/KJ, LT-2a, HT-1 and HT-4 categories there is reduction in sales in all other categories. The major categories contributing to the decrease in sales as compared to the estimates are LT-3, LT-4a, LT-5, LT-6, HT-2a, HT-2b, HT-2c and HT-3 categories.
- d. HESCOM has stated that the variance in the number of installations cannot be explained, in view of diversified geographical nature of area under HESCOM. The Commission notes that HESCOM at page-96 has stated that there is 'increase' in number of installations, though there is reduction in number of installations. This shall be rectified.
- e. Regarding reduction in sales, HESCOM in its filing has attributed the reduction in sales in the above categories to Covid -19 pandemic which is noted by the Commission. The Commission also notes that the sales in domestic category has increased probably due to work from home situation and use of gadgets owing to covid-19 lockdown.
- f. 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 2019-20 to 2020-21 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
2019-20				
2020-21				

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
2019-20				
2020-21				

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
2019-20				
2020-21				

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
2019-20				
2020-21				

2. Sales to IP Sets for FY21:

- a. The Commission, in the APR for FY20, vide its tariff order 2021 has approved the total sales to IP sets as 5,985.90 MU with a specific consumption of 6,394.25 unit per IP set per annum for FY20 for 9,41,725 (after deducting 16,113 numbers of dried-up installations) numbers of IP set installations. HESCOM in its current filing has indicated the sales to IP sets as 5,938.82 MU for FY21 with a specific consumption of 6,197.42 [mid-year installations 9,58,273 $\{(941725 + 974820) / 2\}$] units per IP set per annum. The Commission notes that there is a decrease in sales by 47.08 MU (5985.90 – 5938.82) and

decrease in the specific consumption by 196.83 (6394.25 – 6197.42) units per IP set per annum for FY21 as compared to FY20 actuals when there is an increase in number of consumers by 33,095 (9,74,820 – 9,41,725). The reasons for the decrease in sales and the specific consumption for FY21 needs to be explained.

- b. The details of sales to IP sets for FY21 as approved by the Commission in its Tariff Order 2020 and the actual sales as furnished by HESCOM in its Tariff Filing for FY22 are as follows;

Particulars	As approved by the Commission in ARR for FY21 in the TO	As submitted by HESCOM for APR of FY21 in the TF
Number of installations	9,90,551	9,74,820
Mid-year number of installations	9,75,551	9,58,273
Specific consumption in units / installation / annum	6,882.73	6,197.42
Sales in MU	6,714.03	5,938.82

- c. HESCOM has to furnish the reasons for, decrease in sales by 775.21 MU and decrease in specific consumption by 685.31 units per IP set per annum. It is also observed that there is a decrease in the number of IP se installations added to the system by 15,731 (990551 – 974820) as compared to the approved figures for FY21.
- d. As per the month-wise data submitted by HESCOM in the Commission's prescribed format, the total sales to IP sets is stated to be 5938.49 MU, whereas in the accounts D2 format and filing page No 95, it is 5,938.82 MU, with a difference of 0.33 MU. In page No 97 of Tariff Filing it is 5985.90 MU. Also, the number of IP installations as furnished in the month-wise data is 9,58,801. Whereas, the number IP installations as furnished in the Tariff Filing page Nos 95, 96 and D2 format is 9,74,820 giving a difference of 16,019 number of IP installations. HESCOM has to furnish the reasons for this variance.
- e. Distribution losses considered for assessment of sales to IP sets varies from 0% in the month of April 2020 for few feeders to 3% and to 12% in the month-wise data of sales to IP set installations furnished. Distribution losses

considered for a specific feeder in each month for FY21 is also different. HESCOM shall furnish the rationale for considering such inconsistent distribution losses for assessment of sales to IP sets for FY21.

- f. HESCOM has to observe, rectify and re-submit the entire calculation sheet substantiating its claim of sales to IP installations for FY21. In the absence of proper calculation, the Commission will not approve the sales for FY21.
- g. HESCOM has considered 1995 number of segregated agricultural feeders for assessment of sales to IP set installations in April 2020. Whereas, the number of segregated agricultural feeders considered for assessment of sales to IP set installations in March 2021 is 2090 feeders. HESCOM shall furnish the reasons for not considering all the segregated IP feeders throughout the year.
- h. As per the actual specific consumption for FY21 i.e., 6,197.42 units per IP per annum, the average consumption per IP per month should have been 516.45. From the month wise, feeder wise data submitted by HESCOM, it could be seen that, in some of the feeders, the average consumption per IP per month is as huge as 94,830 units per IP per month, negative and zero in few feeders. Such a variation is seen throughout the year.
- i. HESCOM has to re-submit the data by fixing all such error and the reasons for such abnormal consumptions recorded throughout shall be explained furnishing suitable reasons.
- j. Large inconsistency in feeder wise, month wise data is observed. HESCOM has to furnish the consistent data in excel sheets in respect of assessment of sales to IP sets for FY21.
- k. HESCOM has to furnish the data of GPS as on 31.03.2020 and 31.03.2021 by reconciling survey data with the number of installations in the DCB.

Based on the above observations, HESCOM shall submit the data towards assessment of sales to IP sets for FY21 in the following format by considering the Commission approved values, duly furnishing clarity on the data. If the consistent data is not received, the Commission will not consider the data submitted and would take necessary action as deemed appropriate.

Particulars	FY-17		FY-18		FY-19		FY-20		FY-21	
	April 2016 to Sept 2016	Oct. to Mar 2017	April 2017 to Sept 2017	Oct. to Mar 2018	April 2018 to Sept 2018	Oct. to Mar 2019	April 2019 to Sept 2019	Oct. to Mar 2020	April 2020 to Sept 2020	Oct. to Mar 2021
LT4a – Installations (Nos)										
Midyear installations (Nos)										
LT4a – sales (MU)										
Specific consumption in units / IP/ annum										

3. Observations on Capex for the FY21:

1. In the Tariff Order 2020, Commission had recognized the Capex proposal of Rs.1205.51 Crores for HESCOM and decided to reckon Rs.1085.00 Crores for purpose of determination of tariff for FY21. HESCOM in its filling has indicated a capital expenditure of Rs.1193.6 Crores in Table, on Page No.102, whereas in Format D-17, the Capital expenditure is shown as Rs. 1217.10 Crores. The HESCOM shall indicate the capex incurred for FY21 correctly vis-à-vis the Commission approved capex.
2. HESCOM has not indicated any expenditure against R-APDRP exclusively for modem and meters, shifting of existing transformer to load center, providing covered conductor for villages to prevent theft / accident and hazardous condition, replacement of OH by UG cables in Dharwad and Vijayapur cities, Establishing ALDC and SCADA, smart metering and DSM projects. This needs to be clarified.
3. In view of the inconsistency in furnishing the details, HESCOM shall furnish the details of approved and actual figures as **per Annexure-1**, besides furnishing the following details:

- a) reasons for comparing the actual Capex incurred for FY21 with HESCOM Board approved Budget and Capital Budget for FY21, whereas, capex incurred need to be compared only with Commission approved amount.
- b) Division-wise abstract of Pump-sets energized under Ganga Kalyana Schemes, amount spent of Rs.59.27 Crores, amount of capital grants received from the Government of Karnataka and the balance amount to be received from the Government of Karnataka.
- c) details of sources of funding (like grants, debt, equity and internal sources) for the capex incurred during the FY21, against each of the category of works. Amount of grant received and the balance to be received.
- d) Division-wise abstract of works in progress pertaining to UNIP for the capex incurred of Rs.128.83 Crores.
- e) Division-wise abstract of number of BPL beneficiaries serviced under DDUGJY and Soubhagya scheme for having incurred capex of Rs.95.59 Crores and Rs.27.47 Crores respectively and grants received and the balance grants to be received from the Govt.
- f) List and abstract of works carried out under replacement of 11KV OH feeders by UG cable in Hubballi and Belgaum cities for the capex of Rs.139.71 Crores, incurred.
- g) List and abstract of works carried out under refurbishing works on HT / LT / DTC in O & M divisions for the capex of Rs.34.93 Crores incurred.
- h) Details of total no of water supply works carried out during FY21 and amount received from respective departments.
- i) Division-wise abstract of details of replacement of faulty transformers by new transformers with reasons for having incurring a huge amount of Rs.153.46 Crores, during FY21.

4. Observations on Power Purchase -APR for FY21

1. The contents/details of D-1 format for FY21 shall be in line with Annexure-2 of Tariff Order 2020, to facilitate comparison by the Commission. Further, source-wise comparison with Audited Accounts and D-1 Format shall be in line with Annexure-2 of Tariff Order 2020, to facilitate comparison by the Commission.
2. 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.
3. The abstract of comparison of Power Purchase Cost approved for FY21 by the Commission with Audited Accounts (in Page no-104) shall be in line with Table-5.11 of the Tariff Order 2020, for facilitating comparison.
4. When source-wise energy and cost is compared with the audited figures (Page no-104) and figures in D-1 Format, there is mismatch of energy in some cases. The same needs to be corrected and submitted.

Source of Power	As per Audited Accounts			As per D1 Format		
	Energy in MU	Cost in Rs. Crs.	Per Unit Cost Rs. Crs.	Energy In MU	Cost in Rs. Crs.	Cost Per Unit In Rs.
KPCL Hydel	2836.79	309.75	1.09	2829.32	309.34	1.09
CGS Energy	3490.39	1800.57	5.16	3490.39	2286.49	6.55

5. The PGCIL Charges have increased by around 121%. The same needs to be explained.
6. The HESCOM shall explain the reasons for paying high average cost per unit for the following generating station/schemes:
 - a) BTPS Unit-1
 - b) BTPS Unit-3
 - c) NTPC Vallur
 - d) Kudgi
 - e) UPCL
 - f) NTPC VVNL Solar

7. The HESCOM has indicated Inter ESCOM Energy Exchange of 344.87 MUs with total cost of Rs195.05 Crores in D1-Format. The basis for payment of this amount needs to be furnished besides submitting a reconciliation statement for the energy balancing among the ESCOMs.
8. The per unit cost recovered from IEX Sale is Rs. 2.72. HESCOM shall explain how the energy of 245.33 MU sold through IEX at Rs. 2.72 per unit will earn profit to HESCOM taking into consideration the merit order dispatch.
9. HESCOM has indicated in the D-1 statement the UI charges of Rs. (18.38) Crores with energy of (50.57) MU. The details for this needs to be furnished.
10. The HESCOM in D-1 statement has indicated the capacity charges as Rs. 39.78 Crores and variable cost as Rs. 269.56 Crores for KPCL Hydro. The details of the payment for this fixed charges amount, needs to be furnished.
11. In respect of Priyadarshini Jurala Hydro Project, fixed charges of Rs.10.63 Crores is claimed, the same needs to be explained.

5. RPO Compliance for FY21:

- a. The Commission notes that HESCOM has submitted the RPO data for both solar and non-solar compliance for FY21. As per the submissions made, HESCOM has complied with Non-solar RPO to the extent of 28.70% against the target of 11% and solar RPO to an extent of 17.51% against the target of 8.50%.

Excluding, hydro the input energy for FY21 as per D1-format should be 10478.27 MU FY21 [13352.14-2829.32(KPCL hydro)-37.04MU(Jurala)-7.47 MU(TBHE), whereas HESCOM has indicated the same as 10474.18 MU at page 116 & 117 for RPO calculations. In D-1 format the energy for shimsha is not indicated.

Further as per D-1 format the energy purchased is 13352.14 MU against 13327.12 MU indicated at page-116. Similarly, KPCL Total at Page 105 does not tally with D-1 data. The source-wise data shall be reconciled as per audited accounts.

Also, HESCOM shall indicate the hydro energy accounted in energy balancing separately and consider power purchased from Shimsha for compliance of Non-solar RPO.

- b. The Non-solar energy as per D-1 format and as per pages 106 to 115 is indicated below:

Source	D-1 Format	Million Units
		Pages 106 to 115
Wind	2090.83	2139.14 (2090.83 PPA +37.16+11.15 banked)
Mini-Hydel	80.26	80.26
Co-generation	890.74	890.74
Biomass	0.00	0.00
Total	3061.83	3100.14

As per D-1 format the total Non-solar energy is 3061.83 MU and as per data at Pages 106 to 115, it is 3100.14 MU, whereas HESCOM has considered 3005.82 MU. The non-solar energy source-wise as above shall be reconciled tallying with FY21 accounts data.

- c. The Solar energy as per D-1 format and as per pages 111 to 115 is indicated below:

Source	D-1 Format	Million Units
		Pages 106 to 115
KPCL	1.79	1.79
NTPC VVNL	18.28	18.28
NTPC NSM	237.69	237.69
Solar-others	1570.99	(1715.58-18.28-237.69+86.35 + banked energy of 0.56+4.31)
Total	1828.75	1722.24

As per D-1 format the total Solar energy is 1828.75 MU and as per data at Pages 111 to 115, it is 1722.24 MU, whereas HESCOM has considered 1833.61 MU. The Solar energy source-wise as above shall be reconciled tallying with FY21 accounts data.

- d. 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 for FY21 [indicating each item distinctly]:

a. Non-solar RPO:

No.	Particulars	Quantum in MU	Cost- Rs. Crs.
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. Crs.
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 [No2+ No.3+No.4+No.5+No.7+No.9+No.10]		
12	Solar energy accounted for the purpose of RPO [No.11- No.5-No.6-No.8]		
13	Solar RPO complied in % [No12/No.1]*100		

6. Cross subsidy surcharge:

For FY23 HESCOM has proposed the following CSS based on MYT Regulations adopting methodology specified in Tariff Policy-2016:

Voltage level	HT-1	HT-2a	HT-2b	HT-2C	HT-4	HT-5
66kV & above	92	176	245	191	159	276
HT-11kV or 33 kV	0	176	245	191	116	276

HESCOM shall file CSS for each of the HT- tariff sub-categories separately, as per the KERC Regulations, wherein the computations as per Tariff Policy,2016 is adopted. Further, if the CSS computed is negative, it shall be made zero. HESCOM shall furnish working details for cost of supply at HT level and EHT level.

7. Additional Surcharge (ASC):

HESCOM has worked out additional surcharge of 119 paise per unit based on FY-21 actuals and 126 paise/unit based on proposed ARR for FY23. The Commission in its previous tariff order, has considered the data as approved for the year for which tariff is determined. Therefore, **HESCOM shall confirm the ASC to be levied for FY23.**

15. HESCOM shall furnish the breakup of EHT and HT sales under HT categories for FY-23, FY24 and FY25 respectively.

8. Interest on belated payment of power purchase cost for FY21:

HESCOM has claimed Rs.624.40 Crores towards interest on belated payment of power purchase cost for FY21, which is not provided for under the provisions of MYT Regulations. HESCOM shall note that the Commission is allowing Interest on working Capital as per the provisions of the MYT Regulations.

This claim has resulted in excess projection of ARR and revenue gap for FY21. HESCOM shall submit the reason for claiming this amount, though the same is not provided for in the MYT Regulations.

B Observations on ARR for FY23-25

1. Category-wise sales for FY23-FY25 other than IP sets:

a) The HESCOM, in their filing have stated that the estimates depend upon population, government policies & schemes, hours of supply etc. Further, it is submitted that HESCOM has analyzed data from FY16 to FY21 and has also considered dismantled installations.

HESCOM has worked out 5-year and 3-year CAGR and has submitted that it has considered lower of CAGRs for the period FY16 to FY21 and FY18 to FY21 for estimating the number of installations.

Further, the Commission has noted that for energy sales estimate for FY22 and FY23-25, lower of the CAGR for the period FY16 to FY21 and FY18 to FY21 is considered by HESCOM. However, where the growth is negative or low, certain modifications are made as follows:

- a. In case of LT-2b, LT-3, HT-2b and HT-2c categories, FY15 to FY20 CAGR is considered
- b. For LT 4b & 4c, specific consumption of FY21 is considered,
- c. in case of LT-5 growth rate of FY19 at 2.53% is considered
- d. in case of HT-2a growth rate of FY19 at 15.38% is considered

b) The observations of the Commission on sales forecast are as follows:

1. In case of LT-2b, LT-5, HT-2a, HT-2b and HT-2c categories, though there is increase in the number of installations, sales are decreasing during the control period.

2. The table indicating the growth rates for the number of installations is furnished as below:

Category	Percentage Growth Rates					
	2015-16 to 2020-21 CAGR	2017-18 to 2020-21 CAGR	FY21 growth over FY20	Growth rate proposed by HESCOM for FY23	Growth rate proposed by HESCOM for FY24	Growth rate proposed by HESCOM for FY25
LT-2a	4.88%	5.13%	3.54%	4.88%	4.88%	4.88%
LT-2b	5.37%	3.38%	3.06%	3.38%	3.39%	3.36%

LT-3	5.21%	5.00%	5.47%	5.00%	5.00%	5.00%
LT-5	4.40%	3.47%	4.26%	3.46%	3.47%	3.46%
LT-6 WS	9.51%	6.89%	4.22%	6.89%	6.89%	6.89%
LT-6 SL	5.43%	4.86%	5.46%	4.86%	4.86%	4.86%
HT-1	11.28%	9.54%	8.85%	9.61%	9.36%	9.65%
HT-2 (a)	9.50%	8.50%	6.52%	8.51%	8.51%	8.50%
HT-2 (b)	7.94%	7.20%	5.48%	7.21%	7.21%	7.18%
HT-2 (c)	8.77%	7.65%	5.07%	7.46%	7.64%	7.74%
HT-3(a)& (b)	8.99%	7.97%	5.50%	8.26%	7.89%	7.80%
HT-4	0.64%	0.00%	0.00%	0.00%	3.13%	0.00%

It is noted that, the growth rate considered for HT-2c is lower as compared to the normal growth rates. Further for HT-4 category 3.13% growth rate is considered for FY24, whereas for other two years no growth is considered. Therefore, the HESCOM may consider revising the data for this category.

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

Category	Percentage Growth Rates					
	2015-16 to 2020-21 CAGR	2017-18 to 2020-21 CAGR	FY20 growth over FY19	Growth rate proposed by HESCOM for FY23	Growth rate proposed by HESCOM for FY24	Growth rate proposed by HESCOM for FY25
LT-2a	4.02%	5.08%	4.73%	4.02%	4.02%	4.02%
LT-2b	0.31%	-7.11%	11.07%	9.43%	9.40%	9.42%
LT-3	2.26%	1.09%	6.03%	5.84%	5.84%	5.84%
LT-5	-0.14%	-0.98%	-1.30%	2.53%	2.53%	2.53%
LT-6 WS	9.19%	6.58%	5.34%	6.58%	6.58%	6.59%
LT-6 SL	3.39%	0.63%	-0.84%	0.63%	0.62%	0.63%
HT-1	9.53%	12.36%	3.48%	9.53%	9.53%	9.53%
HT-2 (a)	0.32%	-2.03%	-4.96%	15.38%	15.38%	15.38%
HT-2 (b)	-3.18%	-5.83%	0.19%	2.58%	2.59%	2.58%
HT-2 (c)	0.58%	-6.98%	-0.97%	10.26%	10.27%	10.25%
HT-3(a)& (b)	14.43%	7.92%	-	7.92%	7.92%	7.92%
HT-4	2.71%	4.65%	10.39%	2.68%	2.72%	2.71%

The Commission notes that the CAGR as well as FY21 growth rate for energy sales in most of the categories is negative, due to reduction in sales during FY21 on account of Covid-19. Thus, comparing with FY20 growth rate, the Commission observations are as follows:

- a. Growth rate is lower for LT-2b, LT-3 & HT-4 and
- b. Growth rate is higher for LT-5, LT-6 SL & HT-1, HT-2a (too much high), HT-2b and HT-2c (too much high)

2. Projected Sales to IP Sets for FY23-25:

- i. Sales as per actuals during the period April 2021 to September 2021 is not found considered for projection of IP sales for the control period FY23 to FY25. But HESCOM has considered only the number of IP installations incurred in the system.
- ii. HESCOM has considered the specific consumption of 6394.25 units per IP set per annum while projecting the sales to IP set installations for the control period FY23 to FY25. HESCOM has not submitted the details of calculation for arriving at the specific consumption of 6394.25 units per IP set per annum.
- iii. **The HESCOM, in its tariff application for FY22 has not furnished total IP consumption for the period April to September 2021 without furnishing the month-wise break-up, as per the prescribed formats. In the absence of clear data, the Commission will not accept the sales for FY23 to FY25.**

3. Sales to HRECS:

For FY22 to FY-25, HRECS has considered the following quantum of purchase (interface points) from HESCOM (including AEQUS sales):

	FY22	FY23	FY24	FY25
HRECS Estimate-MU	290.07	306.77	324.84	344.63

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

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

a. No. of Installations:

Category	2019-20 Actuals		2020-21 Actuals		2021-22	
	As on 30 th Nov 2019	As on 31 st March 2020	As on 30 th Nov 2020	As on 31 st March 2021	As on 30 th Nov 2021	As on 31 st March 2022 (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						
BJ/KJ<=40units/						
BJ/kJ > 40 units/month.						
IP sets-LT-4a						
Sub Total (BJ/KJ and IP)						
Grand Total						

b. Energy Sales

Category	2019-20 Actuals		2020-21 Actuals		2021-22	
	1st April 2019 to 30th Nov 2019 (cumulative)	1st Dec 2019 to 31st March 2020 (cumulative)	1st April 2020 to 30th Nov 2020 (cumulative)	1st Dec 2020 to 31st March 2021 (cumulative)	1st April 2021 to 30th Nov 2021 (cumulative actuals)	1st Dec 2021 to 31st March 2022 (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)						

	2019-20 Actuals		2020-21 Actuals		2021-22	
HT-2 (b)						
HT2C						
HT-3(a)& (b)						
HT-4						
HT-5						
Sub Total (Other than BJ/KJ and IP sets)						
BJ/KJ<=40units/month						
BJ/kJ > 40 units/month.						
IP sets LT 4a						
Sub Total (BJ/KJ and IP)						
Grand Total						

5. Capital Investment Plan for FY23-FY25:

1. HESCOM has proposed the Capex of Rs.1469.52 Crores, Rs.1549.14 Crores and Rs.1688.64 Crores for FY23, FY24 and FY25 respectively for the control period, under MYT regime. The total capex proposed for the control period is Rs. 4,707.3 Crores.
2. HESCOM shall provide necessary justification on proposed capex towards each of the works in terms of its purpose, requirement, physical progress, cost and timelines of completion along with the no. of works proposed to be taken in each of the year of the Control Period in tune with the actual requirement duly backed up by justifiable data regarding load growth, loss reduction, improvement in the system reliability etc., keeping in view the financial capability of HESCOM to meet the debt servicing obligations and also the tariff impact on the end consumers.
3. HESCOM shall also furnish the following details:
4. Division-wise abstract of no. of beneficiaries and works pertaining to creation of infrastructure to UAIP to be carried out for the proposed capex of Rs.280.00 Crores, Rs.325.00 Crores and Rs.350.00 Crores for FY 23 to FY25 respectively.
5. During the 1st Quarter Review Meeting, HESCOM has submitted that it has completed all the feeder separation works under NJY scheme. In view of this HESCOM shall justify the proposal of NJY scheme of Rs.6.00 Crores (each

of the year Rs.2.00 Crores) and bifurcation of NJY feeders of Rs.6.00 Crores (each of the year Rs.2.00 Crores) for the control period in compliance with GoK directions.

6. Complete details of works to be carried out under replacement of 11KV OH feeders by UG cables for the proposed capex of Rs.10.00 Crores, Rs.15.00 Crores and Rs.20.00 Crores for FY 23 to FY25 respectively.
7. Division-wise abstract of work pertaining to DTC's metering (other than APDRP) for proposed capex of Rs.12.00 Crores (each of the year Rs.4.00 Crores) for the control period.
8. Division-wise, work-wise abstract pertaining to preventive measures to reduce the accidents for proposed capex of Rs.77.40 Crores, Rs.81.27 Crores and Rs.85.34 Crores for the control period. HESCOM shall also furnish the details of amounts spent on this account and the progress achieved in terms of reduction in accidents, in the previous control period till date.
9. Details of Civil engineering works for the proposed capex of Rs.150.00 Crores, Rs.100.00 Crores and Rs.100.00 Crores for FY23 to FY25 respectively.
10. HESCOM shall furnish the details of sources of funding (like grants, debt, equity and internal sources) for the proposed capex along with the details of the tariff impact on consumers for the proposed capex to be met from borrowing.

6. Distribution Loss for FY23-25:

HESCOM in its application has indicated 13.25% as the actual distribution loss for FY21, as against the approved loss of 14.00% and the actual distribution losses of 14.10% for FY20. The actual distribution losses for FY21 is reduced by 0.85% over the target distribution losses of FY20. However, HESCOM has projected the distribution losses of 13.15%, 13.05%, 12.95% and 12.50% for FY22 to FY25, a meager reduction of 0.10% in each year of FY22 to FY25 over the actual distribution loss for FY21. As compared with the actual distribution loss achieved by CESC during the previous year's up to FY21 and the amount of capex already invested and higher amounts of capex proposed for the next control period of FY23 to FY25, the projected distribution losses, with a year on year reduction of mere 0.10% for FY23 to FY25 is not desirable and acceptable.

The Commission notes that, to achieve this level of proposed reduction in the distribution losses, the requirement of capital investment as proposed by HESCOM with various schemes to take up capital works, may not be required. To justify its capital investment, HESCOM shall be required to re-assess and submit revised loss reduction targets for FY23 to FY25.

7. Power Purchase FY23 – FY25:

- a. HESCOM has considered the same parentage of transmission loss for all the years of control period for which HESCOM shall furnish the reasons.
- b. In respect of Renewable Energy (RE), month-wise break up of source-wise capacity and energy shall be furnished. This is essential to analyze the month-wise variations of requirement of energy and availability from different sources.
- c. HESCOM, in its projection has not shown any sale of surplus energy. The planned for sale of surplus energy may be furnished.
- d. In respect of thermal energy, HESCOM has considered high rate of variable cost for the control period. HESCOM shall furnish the detailed analysis for projecting the variable cost source-wise for KPCL thermal, UPCL and CGS duly comparing it with the previous control period.

8. Observations on other items of ARR:

1. Interest on Working Capital:
HESCOM in its application has claimed Rs.188.05 Crores, Rs.198.82 Crores and Rs.210.91 toward interest on working capital at the interest rate of 11% for FY23 to FY25. HESCOM has to keep in view the circular issued by the Govt with regards to reduction of interest burden on the consumers in the light of reducing trend in the interest rates of during last 2 years and re-examine and recast its projection of interest on working capital for FY23 to FY25.
2. Terminal benefits:
HESCOM, in its filing of APR for FY21 and ARR for FY23 to FY25 has claimed/projected Rs.274.54 Crores, Rs.302.58 Crores, Rs.333.08 Crores Rs.368.51 Crores and Rs.409.18 Crores respectively towards Terminal Benefits for FY21 and for FY22 to FY25. HESCOM shall furnish the basis and the

computation details for claiming the amount in respect of employees recruited prior to 31.03.2002 and those employees covered under NDCPS scheme separately.

3. Tariff Subsidy to BJ/KJ and IP set installations for FY 21:

HESCOM, in its filing for FY21, has claimed Rs. 136.42 Crores and Rs.3955.44 Crores towards tariff subsidy from BJ/KJ and IP set installations for FY21 respectively. HESCOM shall submit the details of energy consumption and revenue demand raised as per the audited accounts and claims submitted to the Government of Karnataka to release subsidy for FY21. The details of subsidy released and the balance thereof, may also be furnished.

4. HESCOM as per Format D-21 and D-21(a) has considered the total sanctioned load under each slab for each of the tariff categories. HESCOM shall submit the total sanctioned load under each slab of the tariff category as on 30th September 2021, duly certified along with details of slab-wise consumption to estimate the revenue at both the existing and the proposed tariff.

5. HESCOM has proposed to discontinue both the Special Incentive Scheme and Discounted Energy Rate Scheme approved by the Commission in previous tariff Orders, with a view to increase the sales by considering the availability of surplus power in the State. The other ESCOMs in the State have proposed to continue the Schemes with some modifications in order to increase the sales. In this regard, HESCOM shall submit the a detailed analysis as to how the schemes have impacted the revenues of HESCOM. In case these schemes are withdrawn in HESCOM, more no. of consumers may not opt for HESCOM supply, which would further affect the HESCOM's Revenues. Hence, in the absence of a detailed analysis, the Commission would not be in a position to take a view in the matter.

6. In view of surplus power situation in the State for FY23, HESCOM shall submit its plan of action to sell the surplus power to reduce the fixed charge burden on the company and to the consumers in the State. HESCOM shall also submit its action plan to increase the energy sales within its area of supply to absorb / reduce its massive accumulated revenue losses.

7. BESCO has proposed to levy Fixed / demand charges on the basis of slab-wise sanctioned load. HESCO shall submit its opinion on the proposal. HESCO shall submit the following details certified by the Senior Officers of the Company on the basis of the data available in computerized billing system by considering the existing consumers as on 30th September 2021.

	No. of Consumers	Total Sanctioned Load	Sanctioned Load/consumers
LT2(a) up to 1 KW About 1KW up to 5 KW Above 5 KW up to 25 KW Above 25 KW up to 50 KW Above 50 KW			
LT2(b) Up to 1 KW Above 1 KW to 10 KW Above 10 KW to 50 KW Above 50 KW			
LT3 Up to 1 KW Above 1 KW to 10 KW Above 10 KW to 50 KW Above 50 KW			
HT2 (Separately for (a) (b) (c) Up to 200 KVA Above 200 KVA to 1000 KVA Above 1000 KVA			
HT2(a) Consumption up to 2 lakhs Above 2 lakhs			

9. Compliance to directives issued by the Commission:

No.	Directives Issued by the Commission	Observation made
1	Consumer interaction meeting at Subdivision level.	HESCO was directed to conduct consumer interaction meetings at Subdivision level chaired by the jurisdictional SEE or EE(E) once in a quarter to redress the consumer complaints. HESCO has furnished only the details of CIM conducted in the Commission prescribed format for 1 st and 2 nd Quarter of FY22. HESCO has to furnish the data for all the quarters of FY21. As per the details furnished in Annexure – 1, it is observed that, most of the CIMs are chaired by the Assistant Executive Engineers and not chaired by the jurisdictional Superintending Engineers or Executive Engineers. HESCO shall submit a separate data clearly showing the CIMs chaired by the officers as directed by

No.	Directives Issued by the Commission	Observation made
		<p>the Commission, in each sub-division apart from the one chaired by the Assistant Executive Engineers.</p> <p>As directed, the HESCOM has not been furnishing the details of the CIMs conducted once in three months to the Commission. HESCOM shall confirm as to whether the proceedings of such meetings are hosted in its website.</p> <p>The HESCOM shall furnish compliance on the above observations.</p>
3	Directive on Energy Conservation	<p>In the Tariff Filing, HESCOM has not furnished the information on the activities carried for creating consumer awareness during FY21. HESCOM has not furnished in detail the implementation of the directive on energy conservation in its offices, number of offices covered, energy saved etc.,</p> <p>The HESCOM shall submit the compliance as per the said direction.</p>
4	Directive on implementation of Standards of Performance (SoP)	<p>HESCOM shall furnish the details of awareness campaigns in the Hobli levels for educating consumers and orientation programs for educating the officers and field staff up to the level of lineman conducted during FY21 and FY22 upto September 2021.</p>
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 present tariff filing in 19,998 SL installations are required to be provided with timer switches. Whereas, as per the information furnished in the previous year tariff filing, 19,789 number of SL installations are to be provided with the timer switches. This shows that, in spite of the directions of the Commission, HESCOM is servicing the SL installations without timer switches, thereby increasing the inventory of SL installations to be provided with timer switches.</p> <p>HESCOM shall submit the current status of compliance on the same.</p>
7	Directive on Load shedding	<p>HESCOM has submitted that the details of only 37.73 lakhs consumer are uploaded in the URJA MITRA Application out of 50.38 lakhs. In the previous tariff filing also it has informed that the consumer data base uploaded to the application was 37.73 lakhs out of 49.27 lakh consumers. Though there is an addition in the number of consumers to the HESCOM distribution system, HESCOM has not updated the entire database into the application. HESCOM shall submit the action plan for updating the details of 100% of consumers in order to utilize the Application effectively.</p>
8	Directive on establishing a 24 X 7 fully equipped centralized consumer service centers	<p>HESCOM was directed to reduce the consumer downtime to address the complaints. HESCOM is 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>

No.	Directives Issued by the Commission	Observation made
		The HESCOM shall furnish compliance in this regard. Comparison of the downtime analysis for FY20 and FY21 shall be furnished.
9	Directives on Energy Audit	<p><u>Energy Audit of cities / towns</u></p> <p>The HESCOM has not been furnishing the energy audit reports regularly to the Commission. HESCOM shall furnish the comparative statement of losses recorded in Towns & Cities for the FY21 as against the FY20.</p> <p>DTCs Energy Audit:</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 is said to have conducted Energy Audit for only about 24,000 number of DTCs, out of 65,381 number of metered DTCs. It is observed that the energy losses are more than 20%, in about 2,100 audited DTCs during FY22. HESCOM shall furnish remedial measures initiated to reduce losses in those DTCs and the timeline by which all the balance DTCs will be metered, and audited.</p> <p>It has come to the notice of the Commission that, HESCOM has taken initiative and invested huge capital on remote reading of energy meters provided to various DTCs for achieving efficient energy auditing. HESCOM has not mentioned anything about providing communications facilities to these meters and about the action taken to provide 100% communication and to analyse the data towards remedial measures for setting right the issues, conducting energy audit etc., HESCOM shall furnish the details on the number of meters provided to DTCs to have AMI in place, percentage energy audit conducted with the AMI fetched readings etc.,</p> <p>HESCOM is directed to comply with the directives of the Commission issued in all the preceding Tariff Orders, in respect of energy audit of DTCs.</p> <p>HESCOM shall also furnish the details of audit conducted in respect of Towns and Cities and DTCs for FY21 and the action taken to reduce the losses in high loss making towns and cities.</p>
12	Lifeline Supply to Un - Electrified households	As per the data furnished in tariff filing, the Commission has observed that there is difference in rural House Holds (HHs) identified and electrified in RGGVY 12 th Plan scheme and DDUGJY scheme. The HHs electrified is less compared to the identified numbers. HESCOM shall submit the compliance as to the action plan for completing the electrification of all the households identified.

No.	Directives Issued by the Commission	Observation made
13	Implementation of Financial Management Framework	<p>HESCOM has not been submitting the compliance on the directive regularly to the Commission. HESCOM has not submitted the O&M Division-wise target fixed as per the directive, performance analysis etc.,</p> <p>HESCOM has reported arrears to the extent of Rs. 2,326.90 Crores as on 30.09.2021. Commission has also observed a huge gap in recovery from RLB and ULB in the jurisdiction of HESCOM. HESCOM shall submit the action taken towards the recovery of arrears along with the action plan.</p>
14	Prevention of Electrical Accidents	<p>As per the details of hazardous locations furnished, it is found that, as high as 3,890 number of hazardous locations are yet to be rectified as on September 2021. HESCOM shall furnish the stringent action plan for rectifying the hazardous locations.</p> <p>HESCOM has to furnish the summary of the analysis made on the reports submitted by Electrical Inspectorate for FY21 and FY22 up to September, 2021, action taken to prevent such accidents in future.</p>

Break up of actual capital expenditure.

Sl. No.	Particular of the works under Major/ Minor heads	Commission approved Capex in Rs. Crores	Expenditure incurred for FY21		Expenditure pertains to spill over works		Expenditure pertains to Fresh/New works		Reasons for exceeding/underutilization of capex
			No. of works	Amount in Rs. Crores	No. of works	Amount in Rs. Crores	No. of works	Amount in Rs. Crores	
	Mandatory works, Social obligation and other works								
1	Gangakalyan IP sets: Dr. B. R Ambedkar Development Corporation								
2	Gangakalyan IP sets: Karnataka State Tribal Development Corporation								
3	Gangakalyan IP sets: Devraju Urs Backward Class Development Corporation								
4	Gangakalyan IP sets :Karnataka Minority Development Corporation								
5	Gangakalyan IP sets :Karnataka Vishwakarma Samudaya Development Corporation								
6	Gangakalyan IP sets :Bhovi Development Corporation								
	Gangakalyan total								
	GOK Sponsored Works								
7	Special Development Plan for backward talukas under Nanjundappa scheme(SDP)								
8	Rural Electrification under SCSP (Not covered under RGGVY)								
9	Rural Electrification under TSP (Not covered under RGGVY)								
10	Energisation of IP sets under Sheegra Samparka								
11	Creating infrastructure to UAIP Sets (Before and after 2014 GOK circular)								
11.a	Arranging Power Supply on HT basis (75:25)								
12	Nirantara Jyoti Yojana.								

12.a	Bifurcation of NJY Feeders								
	Sub - total								
	GOI Sponsored Works								
13	DDUGVY								
14	R- APDRP.								
14.a	R-APDRP exclusively for Modem and meters								
15	IPDS								
16	Soubhagya Yojane								
	Sub - total								
17	Expansion of network and system improvement works.								
a	Additional DTCs								
b	Enhancement of Distribution Transformers								
c	Shifting of existing transformer to load centre								
d	LT line conversion of 1Ph 2 wire or 1Ph 3 wire to 3ph 5 wire								
e	Other E & I Works (DP & GOS)								
f	Construction of new 11 KV lines for 33 KV / 110 KV sub-stations/ link lines for bifurcation of load								
g	11 KV Re-conductoring.								
h	LT Re-conductoring.								
i	Providing covered conductor for villages to prevent Theft/ accident and hazardous condition								
j	Rectification of Hazardous locations .								
	Sub - total								
18	Construction of new 33 KV stations								
	Construction of new 33 KV lines.								
19	Augmentation of 33 KV stations.								
20	Replacement of 33 KV lines Rabbit								

	conductor by Coyote conductor.								
21	Replacement of old and failed equipment and other works of existing 33 KV stations and lines.								
	Sub - total								
	UG Cable								
22	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubli and Belgaum cities.								
23	Replacement of OH by UG cable in Dharwad and Vijayapura cities								
24	Commissioning of 3 Ph 4 wire HT Metering Cubicle with meter, CTs, PTs								
25	Refurbishing works on HT/LT/DTC in O & M Divisions								
	Sub-total								
	Reduction of T & D and ATC loss								
26	Providing meters to un-metered IP sets.								
27	Providing meters to un-metered BJ/KJ installations.								
28	Replacement of faulty / MNR energy meters by static meters.								
29	Replacement of electromechanical energy meters by static meters.								
30	DTC's metering (Other than APDRP)								
	Sub - total								
	General (In House)								
31	Rural Electrification (General)(Not covered under RGGVY)								
32	Electrification of BPL Households (General) (Not covered under RGGVY)								
33	Water works								
34	Service connections								
35	Improvement Works at 5 Nos of Villages in each MLA Constituency & 5 Nos								

	of Villages in each MP Constituency under MADARI VIDUYAT GRAM .								
36	Providing prepaid meters to temporary installations								
37	Providing numerical relays to provide power supply to farm houses								
38	Providing 16KVA Transformers for A/P/S to farm houses in Chikodi Division								
39	T&P materials.								
	Sub - total								
	New initiatives works								
40	IT initiatives, automation and call centre								
41	Providing solar roof tops to HESCOM and other Government office buildings								
42	IPDS IT imitative Phase II								
43	Establishing ALDC & SCADA.								
44	Smart Metering								
45	DSM Projects								
	Sub - total								
45	Immediate Execution (Planned/Unplanned)								
46	Replacement of failed distribution transformers.								
47	Replacement of Power Transformers.								
48	Preventive measures to reduce the accidents. (Providing intermediate poles, Restringing of sagging lines, providing guy & struds,providing guarding, DTC earthing)								
49	Replacement of broken poles / Disaster Management Works								
50	Flood Affected Works								
	Sub - total								
51	Civil Engineering works like								

	Construction of new office buildings/ Sub station civil works, Modernisation/Repairs to existing buildings, regular maintenance to immovable properties								
52	Shifting of IP set in NTPC area (B Bagewadi)								
	R- APDRP.								
	R-APDRP exclusively for Modem and meters								
	HVDS								
	Fixing of boxes to Single Phase Meters								
	Special pilot project for Strategic Business Centre at Gadag Division								
	Smart Grid Initiative								
	The work of Supply of Hardware, Supervisory Manpower (for Technical Support) and Development of Software (End to End Solution including Google Map Subscription for 2 Years, if applicable) to Support Enumeration of IP Sets in HESCOM Jurisdiction (except Bailhongal O & M Division) through GIS Application and Maintenance for 2 Years								
	Corporate Office Reserve for Emergency								
	Total								