

CHAPTER – 4

ANNUAL PERFORMANCE REVIEW FOR FY18

4.0 HESCOM's Application for APR for FY18:

The HESCOM had filed its application on 30th November, 2018, for Annual Performance Review (APR) for FY18 as per the audited account and the Annual Revenue Requirement (ARR) for the control period FY20 to FY22, along with revision of Retail Supply Tariff for FY20, in terms of the MYT Regulations.

The Commission in its letter dated 18th December, 2018, had communicated its preliminary observations on the application of HESCOM. In its letter dated 28th December, 2018, HESCOM has furnished the replies to the preliminary observations of the Commission.

The Commission in its Tariff Order dated 11th April, 2017, had approved HESCOM's revised Annual Revenue Requirement (ARR) of Rs.6791.15 Crores along with the retail supply for FY18.

The revised Annual Revenue Requirement (ARR) of HESCOM as per annual performance review of HESCOM for FY18, based on the Audited Accounts, is discussed in this chapter.

4.1 HESCOM's Submission:

The HESCOM has submitted its proposals for revision of ARR under APR for FY18 based on the Audited Accounts as follows:

TABLE – 4.1
ARR for FY18 – HESCOM's Submission

Sl. No	Particulars	Amount in Rs. Crores	
		As Approved 11.04.2017	FY18 As Filed on 30.11.2018
1	Energy at Gen Bus in MU	13283.89	12716.05
2	Transmission Losses in %	3.37%	1.29%
3	Energy at Interface in MU	12508.36	12552.36
4	Distribution Losses in %	15.50%	14.76%
	Sales in MU		
5	Sales to categories other than BJ/KJ	4398.08	4443.96

Sl. No	Particulars	As Approved 11.04.2017	FY18
			As Filed on 30.11.2018
6	Sales to BJ/KJ	197.10	201.20
7	Sales to IP	5974.38	6054.12
	Total Sales	10569.56	10699.28
	Revenue at existing tariff		
8	Revenue from tariff and Misc. Charges	3053.89	3042.97
9	Tariff Subsidy for BJ/KJ	128.74	120.22
10	Tariff Subsidy for IP	3608.53	3724.35
	Total Existing Revenue	6791.16	6887.54
	Expenditure		
11	Power Purchase Cost	4966.95	5803.83
12	Transmission charges of KPTCL	535.48	535.48
13	SLDC Charges	5.39	5.54
	Power Purchase Cost including cost of transmission	5507.81	6344.85
14	Employee Cost		687.72
15	Repairs & Maintenance		58.48
16	Admin. & General Expenses		127.88
	Total O&M Expenses	744.36	874.08
17	Depreciation	130.04	149.03
	Interest & Finance charges		
18	Interest on Loans	180.23	291.27
19	Interest on Working capital	126.71	38.57
20	Interest on belated payment on PP Cost	0.00	115.42
21	Interest on consumer deposits	49.01	43.30
22	Other Interest & Finance charges	0.00	0.00
23	Less interest capitalized	0.00	0.00
	Total Interest & Finance charges	355.94	488.56
24	Other Debits	0.00	25.49
25	Net Prior Period Debit/Credit	0.00	0.00
26	Extraordinary Items	0.00	102.90
27	Return on Equity	0.00	0.00
28	Provision for taxation	0.00	0.00
29	Funds towards Consumer Relations/Consumer Education	0.50	0.01
30	Other Income	-170.73	-120.07
31	Deficit for FY16 carried forward	223.23	0.00
	ARR	6791.15	7864.85

Considering the revenue of Rs.6887.54 Crores against a net ARR of Rs.7864.85 Crores, HESCOM has reported a gap in revenue of Rs.977.31 Crores for FY18.

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

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

TABLE – 4.2

Financial Performance of HESCOM for FY18

		Amount in Rs. Crores
Sl. No	Particulars	
	Revenue in Rs. Crores	
1	Revenue from tariff and Miscellaneous Charges	3042.98
2	Tariff Subsidy to BJ/KJ	120.22
3	Tariff Subsidy to IP	3724.35
4	Total Existing Revenue	6887.55
	Expenditure in Rs. Crores	
5	Power Purchase Cost	6344.85
6	Employee Cost	687.72
7	Admin & Other Expenses	195.44
8	Depreciation	149.03
9	Interest & Finance charges	488.56
10	Prior period income	-56.16
11	Prior Period expenses	16.42
12	Exceptional item	102.90
13	Regulatory Income	-837.03
14	Other Income	-63.91
15	ARR Total	7027.83

As per the Audited Accounts, HESCOM has incurred loss of Rs.140.28 Crores in FY18. The profits / losses reported by HESCOM in its audited accounts in the previous year including FY18 are as follows:

TABLE – 4.3

HESCOM's Accumulated Profit / Losses

Particulars	Amount in Rs. Crores
Accumulated losses as at the end of FY10	-659.08
Losses incurred in FY11	-64.70
Profits earned in FY12	39.75
Profits earned in FY13	40.69
Losses incurred in FY14	-576.25
Profits earned in FY15	30.26
Losses incurred in FY16	-372.73
Losses incurred in FY17	-943.41
Losses incurred in FY18	-140.28
Accumulated losses as at the end of FY18	-2645.75

As seen from the above table, the HESCOM has accumulated losses to an extent of Rs.2645.75 Crores as at the end of FY18.

Commission's analysis and decision:

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

4.2.1 Sales for FY18:

A. Sales -other than IP Sets:

The Commission, in its Tariff Order,2017 dated 11.04.2017, had approved total sales to various consumer categories at 10569.56 MU as against the HESCOM's proposal of 10349.12 MU, excluding sales to HRECS & AEQUS 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 there is reduction of 11.28 MU in sales to LT-categories. The Commission had 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 had 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 as filed for FY18 are indicated in the following Table:

TABLE – 4.4
Category-wise sales approved by Commission and the actuals for FY18

Energy in MU			
Category	Approved (MU)	Actuals (MU)	Difference (MU)
LT-2a*	1531.53	1456.60	-74.93
LT-2b	20.96	18.50	-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	121.80	-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	201.20	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 sales to HRECS.

The Commission had noted that the major categories contributing to the increase in sales as compared with the estimate were 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 FY18 under OA, they have consumed 424.67 MU.

The Commission in its preliminary observations had noted 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 analyzed by HESCOM. Probably, the increase may be due to 70 more installations added to this category than what was approved. Hence, HESCOM was directed to compute the sale to new the installations during FY18, to justify the increase.

The HESCOM in its replies, has indicated that the sales due to new installations in HT-2a category is 161.51 MU. The Commission notes that, HESCOM has arrived at the above figure, by simply taking the difference of FY18 sales to HT-2a category with respect to FY17 sales, which does not reflect the true consumption by the new installations. HESCOM should have arrived at the above figures by considering the consumption by each of the new installations during FY18.

Further, in the case of LT-2a and other categories, the Commission observed that, 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 duly quantifying the energy and savings in cost due to such programmes.

HESCOM in its replies has furnished that in FY18, it has saved 36.33 MU by distributing 298501 LED bulbs. The Commission has noted the reply furnished by HESCOM.

HESCOM had furnished the overall sales under OA/wheeling for FY12 to FY19(upto Sep, 2018). In order to analyze reduction in HT sales, HESCOM was directed to 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 specified format.

HESCOM has submitted the details. The Commission notes that only HT-2a category consumers have opted for OA/wheeling in FY18.

B. Sale to IP sets-FY18:

- a) Specific consumption of IP sets for FY18, as approved by the Commission in the Tariff Order dated 11.04.2017 is 8,244 units / IP / Annum. As per the

NJY feeders' data as furnished by the HESCOM, the specific consumption for FY18 works out to 8,905.36 units / IP / Annum. It is observed that there is an increase in specific consumption by 661.36 units / IP / Annum, accounting for an increase by 8.02% in spite of decrease in the number of consumers.

- b) Total sales to IP sets approved by the Commission for FY18 in the Tariff Order is 5,974.38 MU for 7,34,778 number of IP installations. As reported by the HESCOM in the D-2 Format of tariff filing, the actual consumption by 6,96,647 number of IP set installations is 6,054.12 MU, indicating an increase of 79.74 MU, i.e., the sales have increased by 1.33%.
- c) As reported by HESCOM, the number of IP set installations during FY18 are 6,96,647 as against the approved numbers of 7,34,778 corresponding to a decrease of 38,131 number of installations i.e., the number of IP installations are less by 5.18%.

HESCOM was directed to explain and justify with proper reasons as to why the sales and the specific consumption have increased by 1.33% and 5.41% respectively, in spite of decrease in number of installations by 38,131 numbers i.e. by 5.18%.

- d) The Commission in its Tariff Order dated 11th April, 2017, had directed the HESCOM to furnish feeder-wise IP-set consumption, based on the 11 kV feeders' energy meter reading data, every month, to the Commission, in respect of exclusive agricultural feeders segregated under NJY, considering that the energy consumed by the IP sets can be measured at the 11 kV level at the substations after deducting the losses prevailing in the distribution system.
- e) Accordingly, the HESCOM was directed to furnish the details of IP-set consumption, month-wise and 11 kV feeder-wise meters' reading data in respect of agriculture feeders segregated under NJY, duly deducting the distribution system losses prevailing in 11 kV lines, distribution transformers and LT lines, to the Commission. However, the Commission notes that the HESCOM is not submitting the IP-set consumption data based on the segregated agricultural feeders, regularly, to the Commission.

- f) The Commission, in its preliminary observations, had raised the issue of increase in both specific consumption and quantum of sales and had directed the HESCOM to furnish the required month-wise, 11 kV feeder-wise, IP sets' consumption data, as per the energy recorded in the segregated agricultural feeders, in support of its claims of IP-set consumption considered for the FY18, indicating the energy input to the feeders on the basis of energy meters reading data (initial reading - final reading x multiplying constant) in the prescribed format.
- g) The HESCOM, in its replies to the preliminary observations, has submitted the IP-set consumption data, in respect of the exclusive agricultural feeders segregated under the NJY, as directed by the Commission. While furnishing the above data, the HESCOM has stated that, the consumption of IP-sets has increased as compared to the approved quantum due to the following reasons;
- i. During FY18, the total hours of power supply to IP set category is 7 hours continuously in most part of the HESCOM.
 - ii. Separation of rural loads from IP loads, power supply, without interruption is extended to IP sets.
 - iii. Increase in water table in HESCOM area, owing to filling up of small and big tanks, lakes of hundreds of villages, especially in the Belagavi, Bagalkot and Vijayapura Districts and
 - iv. The presence of unauthorized IP sets in the same area, the consumption by IP sets has increased in FY18.
- h) The Commission has observed certain data gaps in respect of the exclusive agricultural feeders particularly in respect of the details of energy meters' initial & final readings and the net consumption arrived at on the basis of energy meter readings and hence had sought complete details of the meter readings' data of all the exclusive agricultural feeders to verify the claims of overall sales of 6,054.12 MU indicated towards IP consumption for FY18 in the Tariff application, along with the number of defunct IP sets to be deducted from the account.

- i) The Commission has noted the increase in IP consumption, more than the approved quantum, even when there is a decrease of 38,131 numbers i.e., 5.18% of IP sets than the approved numbers in FY18. Hence, the Commission is of the view that abnormal increase in both specific consumption and overall consumption in FY18 may be due to supplying of power more than the scheduled hours of Supply, including supplying on single phase / open-delta system, to the exclusive agricultural feeders.

The Commission is of the view that power supply beyond the specified hours needs to be stopped forthwith, as any attempt to give supply to IP sets more than the scheduled hours of power supply will result in increased consumption, which in turn result in higher subsidy burden on the Government. Therefore, the HESCOM is directed to restrict the hours of power supply made to the agricultural feeders segregated under NJY and also strictly adhere to the number of hours of scheduled power supply as fixed by the Government. Further, HESCOM is directed to have strict vigilance in respect of power drawn for IP sets under single phase / open-delta system and take action on such consumers as per law.

- j) On analysis of the feeder wise, month wise data of consumption by IP sets submitted by the HESCOM, it is observed that, the consumption / sales to IP sets for FY18 is 5940.10 MU and the number of IP consumers is 6,16,865. Where as in the D-2 Format of the tariff filing, the sales is, 6054.12MU and the number of IP consumers is 6,96,647.
- k) While replying to the preliminary observations, HESCOM has submitted that:
- i) There are 6,16,865 number of IP consumers in Exclusive IP feeders and the sales corresponding to these consumers is 5940.1 MU.
- ii) There are 61,737 metered IP consumers in Uttara Kannada District and the sales corresponding to these consumers is 114.98 MU.
- iii) There are 18,045 number of dried up / defunct IP sets, as per the GPS survey data.
- By adding (i), (ii) and (iii) above, the total number of IP consumers in HESCOM will be 6,96,647 and the corresponding sales is 6055.08 MU.

- l) HESCOM has submitted, that it has not deducted 18,045 number of dried up / defunct IP sets, based on the GPS survey data, while computing the assessment of sales to IP installations.
- m) In view of the above discussions, it could be seen that the sales to IP sets as per D-2 Format is 6054.12 MU and as per the data submitted in the replies to the preliminary observations as explained in para (k) is 6055.08 MU. The Commission has observed a difference in sales to IP set installations, to an extent of 0.96 MU as per the submissions made by HESCOM.
- n) In the light of the above discussion, the Commission decides to approve 6054.12 MU towards sales to IP-sets on the basis of the submissions by the HESCOM.

Keeping in view the above facts, the Commission approves total sales for FY18, excluding sales to HRECS as indicated in the following table:

TABLE-4.5
Approved category-wise Sales under APR for FY18
Energy in MU

Category	FY-18 Actual Sales
LT-2a*	1456.60
LT-2b	18.50
LT-3	447.73
LT-4b	17.43
LT-4c	0.84
LT-5	320.43
LT-6	277.19
LT-6	149.38
LT-7	28.25
HT-1	234.01
HT-2a	1005.39
HT-2b	121.80
HT-2c	74.14
HT-3a & b	255.87
HT-4	14.59
HT-5	21.81
Sub total	4443.96
BJ/KJ	201.20
IP	6054.12
Sub total	6255.32
Grand total**	10699.28

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

**Excludes sale to HRECS.

4.2.2 Distribution Loss for FY18:**HESCOM's Submission:**

The Commission in its Tariff Order dated 11thApril,2017 had approved the distribution loss for FY18 as follows:

Range	FY18
Upper limit	16.00%
Average	15.50%
Lower Limit	15.00%

The HESCOM, in its annual accounts, has reported the distribution loss at 14.76% for FY18:

1	Energy at Interface Points in MU	12,552.36
2	Total sales in MU	10,699.28
3	Distribution loss as a percentage of input energy at IF points	14.76%

Commission's analysis and decisions:

The Commission notes that, the distribution loss of 14.76 per cent reported by the HESCOM as per the audited accounts, is based on the total sale of 10699.28 MU for FY18. Since, the actual loss of 14.76% is below the targeted lower limit of losses fixed by the Commission by 0.24% percentage point, HESCOM is entitled to incentive for the better performance of loss reduction during FY18 as follows:

TABLE-4.6
Incentive for distribution loss reduction for FY18

Actual Input energy at IF points accounted in MU	12551.96
Retail Sales as per audited account in MU	10,699.28
Percentage of Distribution losses	14.76%
Lower limit of targeted loss	15.00%
Reduction in loss Percentage Points	-0.24%
Input at Target Loss for actual sales in MU	12587.38
Savings in input energy at IF point due to reduction in loss in MU	35.43
Average cost of power as per actuals-Rs./unit	4.9837
Incentive for savings in power purchase cost due to reduced losses Rs. In Crores	17.66
50% of savings to be included in the APR18 balance 50% being the share of consumers-Rs. In Crores	8.83

The Commission as per the MYT Regulations decides to allow incentive of Rs.8.83 Crores and included in revised ARR under APR for FY18.

4.2.3 Power Purchase for FY18:**HESCOM's Submission:**

The Commission in its Tariff Order dated 11th April, 2017, had approved power purchase quantum of 13283.89 MU for HESCOM, indicating source-wise quantum and cost of power purchase for FY18. HESCOM, in its application has submitted the details of actual power purchase for FY18 for the purpose of Annual Performance Review as under:

TABLE-4.7
Power Purchase for FY18- Approved and Actuals

Source of Generation	Approved for 2017-18			Actuals for 2017-18			Difference			% increase (+)/decrease (-) over approved figures	
	Energy in MU	Amount in Cr	Avg. cost in Rs/kWh	Energy in MU	Amount in Cr	Avg. cost in Rs/kWh	Energy in MU	Amount in Cr	Avg. cost in Rs/kWh	Energy	Amount
	1	2	3	4	5	6	7=4-1	8=5-2	9=6-3	10	11
KPCL Hydel Stations	2046.94	175.10	0.86	1218.85	137.06	1.12	-828.09	-38.04	0.26	-40.46	-21.73
KPCL-Thermal Stations	3255.65	1410.64	4.33	2918.79	1465.66	5.02	-336.86	55.02	0.69	-10.35	3.90
CGS	4284.48	1530.11	3.57	4717.86	1894.41	4.02	433.38	364.30	0.45	10.12	23.81
Major IPPs	1880.23	921.31	4.90	1627.16	852.62	5.24	-253.07	-68.69	0.34	-13.46	-7.46
Minor IPPs(RE Projects)	1595.20	642.96	4.03	3049.85	1393.78	4.57	1454.65	750.82	0.54	91.19	116.78
Other State Hydro Projects	24.18	10.04	4.15	22.20	14.89	6.71	-1.99	4.85	2.56	-8.21	48.34
Short/Medium , UI & Sec 11	197.21	79.09	4.01	514.78	212.15	4.12	317.57	133.06	0.11	161.03	168.23
Transmission Charges (KPTCL/PGCIL)	0.00	732.50		0.00	928.84		0.00	196.34	0.00		26.80
SLDC Charges/Tangedco	0.00	6.07		0.00	5.62		0.00	-0.45	0.00		-7.41
PCKL Rev Exp/LC Charges	0.00	0.00		0.00	3.64		0.00	3.64	0.00		
Misc. Energy	0.00	0.00		-1015.38	-421.93	4.16	-1015.38	-421.93	4.16		
Reactive Energy Charges	0.00	0.00		-0.24	-0.11	4.41	-0.24	-0.11	4.41		
IEX	0.00	0.00		5.82	2.11	3.63	5.82	2.11	3.63		
South Western Railways	0.00	0.00		4.04	0.29	0.72	4.04	0.29	0.72		
Total	13283.89	5507.82	4.15	13063.72	6489.03	4.97	-220.17	981.21	0.82	-1.66	17.81

Commission's analysis and decisions:

1. The actual power purchase for FY18, as per the annual accounts submitted by HESCOM is 13063.72 MU amounting to Rs. 6489.03 Crores, as against the approved quantum of 13283.89 MU at Rs 5507.82 Crores. This indicates that there is a decrease in the quantum of power purchased to an extent of 220.17 MU and there is also an increase in the cost by Rs. 981.21 Crores.
2. As against the approved cost of energy amounting to Rs 5507.82 Crores, the actual cost of power purchased by HESCOM is Rs 6489.03 Crores for FY18, which accounts for an increase of 17.81% over the approved cost.
3. On an analysis of the source-wise approved and actual power purchases, it is observed that, there is deviations in the quantum of energy purchased and its cost. There is shortfall in the supply from sources of power from State Owned Hydel projects and Thermal projects and also Major IPPs and due to under drawal of energy under Energy Balancing as indicated below:

TABLE-4.8**Source wise Generation for FY18**

Source of Generation	Approved Energy for FY18 in MU	Actual Energy for FY18 in MU	Shortfall Energy in MU
KPCL Hydel Stations	2046.94	1218.85	828.09
KPCL-Thermal Stations	3255.65	2918.79	336.86
Major IPPs	1880.23	1627.16	253.07
Misc. Energy/Energy Balancing		-1015.38	1015.38
Total	7182.82	4749.42	2433.40
Actual total consumption is less than the Approved consumption by 220.32 MU	-220.17	0.00	-220.17
Grand Total	6962.65	4749.42	2213.23

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

Source of Generation	Approved Energy for FY18 in MU	Actual Energy for FY18 in MU	Excess Energy in MU
CGS	4284.48	4717.86	433.38
Short/Medium , UI & Sec 11	197.21	514.78	317.57
Minor IPPs(RE Projects)	1595.20	3049.85	1454.65
Total	6076.89	8282.49	2205.60

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

- a) The PGCIL Transmission charges have increased by 100% to Rs.393.36 Crores, as against approved cost of 197.02 Crores.
- b) The power from the new thermal projects like Kudgi STPS, BTPS U#3 and YTPS was considered as infirm power. The actual cost per unit of energy has increased, consequent to achievement of Commercial Operation of these thermal plants due to applicability of provision tariff, for which tariff is yet to be determined.
- c) The increase in power purchase quantum, the change in the source-wise mix of supply and the reconciliation of energy and its cost among ESCOMs, have resulted in increase in average power purchase cost of HESCOM.

The explanation furnished provided by HESCOM that due to addition of capacity and addition of Transmission lines, PGCIL Charges have been increased to an extent of 100% as compared to the approved cost i.e. from 197.02 Crores to 393.36 Crores, is not satisfactory. The Commission takes note of the abnormal contribution from the State towards payment of PGCIL transmission charges. Due to this there will be a large financial impact, resulting in an increase in the retail supply tariff to the end consumers. The Commission, therefore, directs ESCOMs/PCKL to take appropriate action immediately, to resolve the issues with the appropriate authorities regarding the PGCIL transmission tariff. Henceforth, ESCOMs/PCKL shall constitute a dedicated team to study the pros and cons of any

methodologies/amendments proposed to PGCIL's Transmission tariff or in any such other relevant matters, and appropriately communicate the same to the concerned authorities, at the draft stage itself in order to safeguard the ESCOMs and consumers' interest. The Commission will not allow such tariff in future, if it considers that ESCOMs/ PCKL have not taken effective and prompt steps to ensure that the PGCIL's transmission tariff is fair and equitable to the State.

- The Commission notes that the per unit total cost paid to some of the State, Central and IPP, Power Stations including Hydel and Thermal sources, indicated in the D-1 Format, is on a higher side as compared to the per unit cost paid by the BESCO. The Commission directs the HESCOM to examine the same in detail and recover excess payments, if any, from the generators, under intimation to the Commission, besides explaining the reasons for the such excess payments, if any.

In the above circumstances, the Commission hereby decides to approve the actual power purchases of 13,063.72 MU at a cost of Rs 6,489.03 Crores, inclusive of 332.61 MU at the cost of Rs. 143.21 Crores related to Hukeri RECS' power purchase quantum and cost, for the purpose of Annual Performance Review for FY18, subjected to recovery of excess payments made to generators, if any, as stated in sub para-6 above.

4.2.4 Renewable Purchase Obligation (RPO) compliance by HESCOM for FY18:

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

TABLE-4.9
Non-Solar RPO Compliance by HESCOM:

Sl. No.	Particulars	Quantum in MU	Cost- Rs. Crores
1	Total Power Purchase Quantum	11975.22	6758.65
2	Non- Solar Renewable Energy Purchased under PPA route at Generic Tariff including Non-Solar RE purchased from KPCL	2196.16	944.10
3	Non- Solar Short - Term purchase from RE sources only	233.97	118.58
4	Non -solar Short-Term purchase from RE sources under sec-11 of EA,2003	0.00	0.00
5	Non - Solar RE purchase under APPPC	137.81	49.22

Sl. No.	Particulars	Quantum in MU	Cost- Rs. Crores
6	Non - Solar RE purchase pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Non - Solar RE purchased from other ESCOMs	0.00	0.00
8	Non - Solar RE sold to other ESCOMs	0.00	0.00
9	Non - Solar RE purchased from any other source	0.00	0.00
10	Total Non-Solar RE Energy Purchased (2+3+5)	2567.94	1111.90
11	Non-Solar RE accounted for the purpose of RPO including Excess solar (2+3)	2430.13	1062.68
12	Non-Solar RPO complied in % [No 11/No 1]*100	20.29	15.72

TABLE-4.10
Solar RPO Compliance by HESCOM

Sl. No	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase Quantum from all sources	11975.22	6758.65
2	Solar Energy Purchased under PPA route at Generic Tariff including Solar Energy purchased from KPCL	378.35	227.70
3	Solar energy purchased under Short-Term, excluding sec-11 purchase	0.00	0.00
4	Solar Short-Term purchase from RE under sec-11 of EA, 2003	0.00	0.00
5	Solar Energy Purchased under APPPC	0.00	0.00
6	Solar Energy pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Solar Energy purchase from other ESCOMs	0.00	0.00
8	Solar Energy sold to other ESCOMs	0.00	0.00
9	Solar Energy purchased from NTPC as bundled power	81.73	43.47
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff	0.00	0.00
11	Total Solar Energy Purchased	460.08	271.17
12	Solar Energy accounted for the purpose of RPO [2+9]	460.08	271.17
13	Non-Solar RPO complied in % [No 12/No 1]*100	3.84	0.00

- a. The Commission in its preliminary observations had noted that the HESCOM, as per the data submitted, had complied with both solar and non-solar compliance for FY18. However, excluding, hydro energy, the input energy (12716.05-1222.64 MU as per table at Page-62-69) should be 11,493.41 MU

whereas, the HESCOM had 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. Therefore, HESCOM was directed to reconcile the data.

HESCOM in their replies have confirmed that excluding hydro, they have purchased 11975.22 MU and that in D-1 format the energy purchased includes solar rooftop energy of 15.06 MU.

- b. Further, the Commission had noted that, as per the power purchase details furnished for FY18, 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 Sl.NO.39 page-57, total solar including NTPC VVNL & farmers scheme:442.01 MU], whereas the HESCOM had indicated it as 460.08 MU for RPO.

HESCOM, furnishing details has confirmed that the solar energy purchased is 460.15 MU.

- c. Similarly, the Non-solar energy purchased as per the power purchase details furnished for FY18, 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. Therefore, HESCOM was directed to reconcile the data and resubmit the RPO statement in the specified format.

HESCOM, furnishing details has confirmed that the non-solar energy purchased is 2567.87 MU and that accounted for RPO is 2430.06 MU.

HESCOM has furnished the following revised RPO statement:

TABLE-4.11
Non-Solar RPO Compliance by HESCOM

Sl. No.	Particulars	Quantum in MU	Cost- Rs. Crores
1	Total Power Purchase Quantum	11975.22	6758.65
2	Non- Solar Renewable Energy Purchased under PPA route at Generic Tariff including Non-Solar RE purchased from KPCL	2196.09	944.10

Sl. No.	Particulars	Quantum in MU	Cost- Rs. Crores
3	Non- Solar Short - Term purchase from RE sources only	233.97	118.58
4	Non –solar Short-Term purchase from RE sources under sec-11	0	0
5	Non - Solar RE purchase under APPPC	137.81	49.22
6	Non - Solar RE purchase 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	0	0
10	Total Non-Solar RE Energy Purchased [No 2+ No.3+No.4+No.5+No.7+No.9]	2567.87	1111.90
11	Non-Solar RE accounted for the purpose of RPO [No.10- No.5-No.6- No.8]	2430.06	1062.68
12	Non-Solar RPO complied in % [No 11/No 1]*100	20.29	15.72

TABLE-4.12**Solar RPO Compliance by HESCOM**

Sl. No	Particulars	Quantum in MU	Cost- Rs. Crores.
1	Total Power Purchase Quantum from all sources	11975.22	6758.65
2	Solar Energy Purchased under PPA route at Generic Tariff including Solar Energy purchased from KPCL	378.42	227.70
3	Solar energy purchased under Short-Term, excluding sec-11 purchase	0.00	0.00
4	Solar Short-Term purchase from RE under sec-11	0.00	0.00
5	Solar Energy Purchased under APPPC	0.00	0.00
6	Solar Energy pertaining to green energy sold to consumers under green tariff	0.00	0.00
7	Solar Energy purchase from other ESCOMs	0.00	0.00
8	Solar Energy sold to other ESCOMs	0.00	0.00
9	Solar Energy purchased from NTPC as bundled power	81.73	43.47
10	Solar energy purchased from any other source like banked energy purchased at 85% of Generic tariff	0.00	0.00
11	Total Solar Energy Purchased [No 2+ No.3+No.4+No.5+No.7+No.9+No.10]	460.15	271.17
12	Solar Energy accounted for the purpose of RPO [No 11- No.5-No.6-No.8]	460.15	271.17
13	Non-Solar RPO complied in % [No 12/No 1]*100	3.84	0.00

2. The Commission has noted the replies furnished by the HESCOM. As per the APR, the Commission has approved power purchase quantum of

11833.20 MU (13,063.72-1218.85-22.19+10.52), excluding procurement from hydro sources, based on the audited accounts. The details of Non-solar energy procured are indicated as follows:

Source	Energy in MU
Co-generation (Power Purchase)	569.48
Mini Hydel	54.20
Wind power projects incl. KPCL	1966.10
Bio mass	0.00
Shimsha	10.52
Less Previous year FY17 adjustment as per T.O. 2018	0
Banked energy purchased	0
Less energy under APPC	137.81
Non-solar Energy- Total	2462.49

3. Regarding the Non-Solar RPO, considering the input energy (excluding procurement from hydro sources) of 11833.20 MU, the Non-solar RPO target at 8.50% works out to 1005.82 MU. HESCOM has purchased 2462.49 MU of Non-solar energy. Thus, there is a surplus of 1456.67 MU in meeting the Non-solar RPO. Therefore, the Commission holds that HESCOM has met its Non-Solar RPO target of 8.50% for FY18, in terms of the prevailing Regulations.

4. Regarding the Solar RPO, considering the input energy (excluding procurement from hydro sources) of 11833.20 MU, the Solar RPO target at 2.75% works out to 325.41 MU. Further, considering the carry forward of 8.72 MU as decided in Tariff Order of 2018, HESCOM has to purchase energy of 334.13 MU (325.41+8.72). HESCOM has purchased 460.07 MU of Solar energy. Thus, HESCOM has purchased 125.94 MU in excess of the required solar energy target specified. Therefore, the Commission holds that HESCOM has met its Solar RPO target of 2.75% for FY18, in terms of the prevailing Regulations.

4.2.5 Operation and Maintenance Expenses:

HESCOM's Submission:

In its application, HESCOM, as per its audited accounts has sought the approval of O&M expenditure of Rs.874.08 Crores for FY18. The break-up of O&M expenses are as follows:

TABLE – 4.13

O & M Expenses – HESCOM's submission

Amount in Rs. Crores	
Particulars	FY18
Employee cost	687.72
Administrative & General Expenses	127.88
Repairs and Maintenance	58.48
Total O & M Expenses	874.08

Commission's analysis and decisions:

The Commission in its Tariff Order dated 11th March, 2017 had approved O&M expenses for FY18 as detailed below:

TABLE – 4.14

Approved O&M Expenses as per Tariff Order dated 11.04.2018

Particulars	FY18
No. of installations as per actuals as per Audited Accts	4621835
Weighted Inflation Index	7.71%
CGI based on 3 Year CAGR	4.16%
Actual O&M expenses for FY16 - in Rs. Crores.	617.65
Total approved O&M Expenses for FY18 – in Rs. Crores.	744.36

The Commission, noted that the O&M expenses claimed by the HESCOM for FY18 exceeds the approved O&M expenses by 129.72 Crores. The Commission further notes that, as per the audited accounts, 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. It is observed that the actual O&M expenses claimed by HESCOM is almost equal to the approved O&M expenses for FY18. HESCOM, in its audited accounts for FY18, under note, has indicated that the pay scale revision to its employees has

been given effect to. Hence, the Commission in its preliminary observation had directed the HESCOM to 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.

Further, HESCOM its filings of APR for FY18 had claimed Rs.110.31Crores, towards terminal benefits under employee cost. The HESCOM was directed to furnish the computation sheet for the same along with the submission of the relevant Actuarial Valuation Report.

The replies furnished by HESCOM is noted. The Commission directs that, the O&M expenses are controllable expenditure in nature, the HESCOM should take necessary action to minimize these expenditures in future to bring down the O&M expenses within the approved level.

The Commission, in accordance with the provisions of MYT Regulations and the methodology adopted while approving the ARR for FY18 and earlier APR's, proceeds with the determination of normative O&M expenses based on the 12-Year data of WPI and CPI besides considering three year compounded annual growth rate (CAGR) of consumers. Considering the Wholesale Price Index (WPI) as per the data available from the Ministry of Commerce & Industry, Government of India and Consumer Price Index (CPI) as per the data available from the Labour Bureau, Government of India and adopting the methodology followed by the CERC with CPI and WPI in a ratio of 80:20, the allowable rate of inflation for FY18 is computed as shown in the following Table:

TABLE – 4.15
Computation of Rate of Inflation

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2006	70.2	122.9	112.36				
2007	73.6	130.8	119.36	1.06	0.06	1	0.06
2008	80.0	141.7	129.36	1.15	0.14	2	0.28
2009	81.9	157.1	142.06	1.26	0.23	3	0.70
2010	89.7	175.9	158.66	1.41	0.35	4	1.38
2011	98.2	191.5	172.84	1.54	0.43	5	2.15

Year	WPI	CPI	Composite Series	Yt/Y1=Rt	Ln Rt	Year (t-1)	Product [(t-1)* (LnRt)]
2012	105.7	209.3	188.58	1.68	0.52	6	3.11
2013	111.1	232.2	207.98	1.85	0.62	7	4.31
2014	114.8	246.9	220.48	1.96	0.67	8	5.39
2015	110.3	261.4	231.196	2.06	0.72	9	6.49
2016	110.3	274.3	241.5	2.15	0.77	10	7.65
2017	114.1	281.2	247.78	2.21	0.79	11	8.70
A= Sum of the product column							40.23
B= 6 Times of A							241.40
C= (n-1)*n*(2n-1) where n= No of years of data=12							3036.00
D=B/C							0.08
g(Exponential factor)= Exponential (D)-1							0.0828
e=Annual Escalation Rate (%)=g*100							8.2760

While determining the normative O & M expenses for FY18, the Commission has considered the following:

- The actual O & M expenses as per the audited accounts for FY 16 as the base year expenses and the approved normative O & M expenses for FY17, excluding contribution to Pension and Gratuity Trust.
- The three year compounded annual growth rate (CAGR) of the number of installations considering the actual number of installations as per the audited accounts up to FY18 of 4.04%.
- The weighted inflation index (WII) at 8.276% as computed above.
- Efficiency factor at 2% as considered in the earlier control periods.

Thus, the normative O & M expenses for FY18 are computed as shown in the following Table:

TABLE-4.16

Allowable Normative O & M Expenses for FY18

Particular	FY18
No of installations as per actuals as per Audited Accts	4605598
CGI based on 3 Year CAGR (Using actuals of FY15 to FY18)	4.04%
Inflation index	8.2760%
Base year O&M cost (FY16 as per audited accounts)Rs.in Crores	533.15
Approved normative O&M Expenses for FY17 without P&G and additional HRA (Rs.in Crores)	586.23
Normative O&M Expenses (t-1)x (1+W11+CG1-X) (Rs.in Crores)	646.68

The above normative O & M expenses have been computed without considering the contribution to the Pension and Gratuity Trust for FY 18. The additional amount towards pay revision arrears and contribution to P&G trust are discussed below:

- i. On the preliminary Observation of the Commission, HESCOM in its replies has informed that the employees cost as per audited accounts includes the additional employees cost of Rs.91.98 Crores towards pay revision arrears from 01.04.2017 to 31.03.2018, included under salaries head of accounts, (under employee cost) for FY18 due to the revision of pay to its employees. The Commission notes the Order issued by the KPTCL on the revision of pay to the employees of KPTCL/ESCOMs, effective from 1st April, 2017.

Accordingly, the Commission decides to allow Rs.91.98 Crores as an additional employee cost towards pay revision for FY18, to enable HESCOM to meet the employee cost.

- ii. HESCOM, as per its audited accounts has booked an amount of Rs.110.31 Crores towards terminal benefits for FY18. The Commission notes that, as per the replies furnished by HESCOM, the actual amount of contribution of terminal benefits to P&G Trust includes additional contribution on account of revision of pay and also revision of contribution rates as per Actuarial Valuation Report is Rs.108.82 Crores for FY18. The balance amount is pertaining to the contribution to PF, payment of compensation under KPTCL life cover scheme and family benefit fund contribution, which is treated as normal employee cost. Thus, the Commission decides to allow Rs. 108.82 Crores as an additional employee cost towards contribution of terminal benefits to P & G Trust for FY18.

Thus, the Commission as per the provisions of the MYT Regulations, decides to treat employee costs on account of revision of pay arrears amount and the Contribution to P&G Trust as uncontrollable O&M expenses. This component has been allowed in addition to the normative O&M expenses to enable HESCOM to meet its actual employee costs.

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

Based on the above, the allowable O&M expenses for FY18 are as follows:

TABLE – 4.17
Allowable O & M Expenses for FY18

Sl.No.	Particulars	Amount in Rs. Crores
		FY18
1	Normative O & M expenses	646.68
2	Additional employee cost contribution to P&G Trust (Terminal Benefit)	108.82
3	Additional cost on account of Employee's pay revision	91.98
4	Allowable O & M expenses for FY18	847.48

Thus, the Commission decides to allow an amount of Rs.847.48 Crores as O&M expenses for FY18.

4.2.6 Depreciation:

HESCOM's Submission:

HESCOM in its application as per the audited accounts has claimed an amount of Rs.149.03 Crores as net depreciation after considering the deductions the depreciation amount on account of assets created out of consumers' contributions / grants as per Accounting Standards (AS) – 12 for FY17.

HESCOM in its filing as per the audited accounts has claimed the asset-wise net depreciation as follows:

TABLE – 4.18

Depreciation for FY18 – HESCOM's Submission

Particulars	Opening Balance of Asset as on 01.04.2017	Rs. Crores	
		FY18	
		Depreciation	Closing Balance of Asset as on 31.03.2018
Buildings	83.26	3.51	93.64
Civil	3.53	0.17	3.60
Other Civil	2.96	0.11	3.61
Plant & M/c	853.90	50.39	1032.06
Line, Cable Network	2119.45	93.84	2711.16
Vehicles	6.14	0.18	7.99
Furniture	6.94	0.37	7.25
Office Equipment	4.71	0.27	5.54
Intangible Assets - software		0.20	
Total	3080.89	149.03	3864.85

Commission's analysis and decisions:

In accordance with the provisions of the KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail Sale of Electricity) Regulations, 2006 and amendments thereon, the depreciation for FY18 has been determined by the Commission duly considering the opening and closing balances of gross blocks of fixed assets for FY18 and the depreciation as per the audited accounts. Accordingly, the weighted average rate of net depreciation works out to 4.67%.

The Commission notes the, HESCOM's noting as per the audited account under Note-12, that the depreciation on assets created out of consumer contribution / grants has been considered and deducted at the respective divisional accounting unit level at 5.28%, as per the Accounting Standard AS-12 while accounting the net depreciation of Rs.149.03 Crores for FY18. Accordingly, the Commission considered the same in allowing the depreciation for FY18.

Based on the above, the Commission decides to allow the net depreciation of Rs.149.03 Crores for FY18.

4.2.7 Capital Expenditure:**Annual Performance Review for FY18:**

The HESCOM, in its application for APR for FY18, has indicated a capital expenditure of Rs 1102.19 Crores. The capital expenditure of Rs 1102.19 Crores for FY18 is against the Commission approved capex of Rs 743.55 Crores for the FY18. The HESCOM has furnished the breakup of category-wise expenditure of Rs. 1102.19 Crores for FY18 as shown below:

TABLE-4.19**Capital expenditure of the HESCOM for FY18 (Rs. in Crores)**

Sl. No	Scheme	Capital Budget FY18	Actual Expenditure	% of Budget utilized
1	Mandatory works, Social obligation and other works			
a	Gangakalyan IP sets	25	88.59	354.36%
b	Special Development Plan for backward talukas under Nanjundappa scheme (SDP)	20	15.24	76.20%
c	Electrification of Hamlets (Not covered under RGGVY)	1	0.01	1.00%
d	Electrification of HB/DB/JC/AC (Habitations) under SCP (Not covered under RGGVY)	0.5	11.27	2254.00%
e	Electrification of TC (Habitations) under TSP (Not covered under RGGVY)	0.5	38.21	7642.00%
f	Electrification of BPL Households (Not covered under RGGVY)	1	0	0.00%
g	Water works	5	0.24	4.80%
h	RGGVY	3	6.26	208.67%
i	DDUGJY	100	16.55	16.55%
j	DDG (Phase-1 & Phase-2)	0	0	
k	Rehabilitation of flood affected villages (special programme).	0	0	
2	Expansion of network and system improvement works.			
A	E & I work.	25	52.59	210.36%
b	Energization of IP sets under general.		60.89	
	Energization of IP sets as per GOK	125	123.12	98.50%
c	Service connections other than IP/BJ/KJ/Water works.	30	54.28	180.93%
d	Construction of new 33 KV stations and lines.	4	4.13	103.25%
e	Augmentation of 33 KV stations.	3	11.2	373.33%
f	Construction of 11 KV lines for 33 KV / 110 KV sub-stations.	5	16.74	334.80%
g	Nirantara Jyoti Yojana.	80	77.66	97.08%
h	R- APDRP.	20	2.52	12.60%
i	R-APDRP exclusively for Modem and	1	0	0.00%

Sl. No	Scheme	Capital Budget FY18	Actual Expenditure	% of Budget utilized
	meters			
	IPDS	50	14.22	28.44%
3	Reduction of T & D and ATC loss			
a	Providing meters to un-metered IP sets.	0.05	0	0.00%
b	Providing meters to un-metered BJ/KJ installations.	0	1.75	
c	Replacement of faulty / MNR energy meters by static meters.	5	5.93	118.60%
d	Replacement of more than 10 year old electro mechanical energy meters by static meters	50	0.00	0.00%
e	DTC's metering (Other than APDRP)	25	20.15	80.60%
f	Replacement of 33 KV lines Rabbit conductor by Coyote conductor	5	0.52	10.40%
g	Replacement of 11 KV lines Weasel conductor by Rabbit conductor.	10	6.44	64.40%
h	Replacement of age old LT conductor by Rabbit conductor.	6	10.34	172.33%
i	HVDS (Pilot project for 1 district/year)	1	0	0.00%
j	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubballi and Belgaum cities.	100	183.33	183.33%
4	New initiatives works			
a	IT initiatives, automation and call Centre	1	8.65	865.00%
b	Installation of energy efficient motors	0	0	
c	Smart grid/sprinkler/drip irrigation system	0.5	0	0.00%
d	Providing solar roof tops to HESCOM office buildings	3	0	0.00%
e	Establishing ALDC & SCADA.	1	0.07	7.00%
f	Thermal Imaging and GIS Mapping of DTCs	5	0	0.00%
g	Special pilot project for Strategic Business Centre at Shiggaon sub-Division	1	0	0.00%
5	Replacement and other miscellaneous works			
a	Replacement of failed distribution transformers.	5	111.58	2231.60%
b	Replacement of Power Transformers.	2	0.5	25.00%
c	Replacement of old and failed equipment and other works of existing 33 KV stations and lines.	3	9.04	301.33%
d	Preventive measures to reduce the accidents. (Providing intermediate poles replacement of deteriorated conductor, DTC earthing etc.)	5	15.93	318.60%
e	T&P materials.	1	5.24	524.00%
f	Creating infrastructure to UAIP Sets	10	108.3	1083.00%
g	Civil Engineering works.	5	23.29	465.80%

Sl. No	Scheme	Capital Budget FY18	Actual Expenditure	% of Budget utilized
	Providing prepaid meters to temporary installations	0	3.97	
	Others		-6.56	
	Total	743.55	1102.19	148.23%

Commission's Analysis and Decision:

HESCOM in its replies to the preliminary observations on exceeding the approved capex, has submitted the following reasons:

- Govt. of Karnataka has envisaged a scheme, Model Electricity Village which mainly focuses on development/strengthening of distribution network in the selected village by the legislative member of particular constituencies, and hence provision of Rs.100 crores has been made in the budget.
- The pilot project for implementation of Smart Meters project taken up with an investment plan of Rs. 50 cores which is included in the later date which resulted in increased capital investment for FY-18.
- Solar roof tops to HESCOM/Government office buildings was initiated for which Capital Budget of Rs. 20 Crores was proposed.
- HVDS programme is planned in Bailhongal and Chickadee divisions for which Capital budget of Rs 20 Crores was proposed.
- For arranging power supply to farm houses, it is proposed to provide numerical relays to EIP feeders on par with BESCOM/CESC for arranging continuous power supply to farm houses. In addition to this it is intended to provide 16kVA transformers for A/P/S to farm housed in Chikkodi Division for which total Capital budget of Rs. 12 Crores are proposed.
- HESCOM intends to implement Pre-Paid Meters for Energy Consumption and facilitating the relevant data for billing of temporary installations across Hubballi (Urban), Hubballi (Rural) O&M Divisions and Belagavi (Urban) O&M Division, using Smart Card Technology of HESCOM. It will be helpful in effective and qualitative energy audit installation wise better revenue realization. For which Capital budget of Rs. 5 Crores is proposed.
- HESCOM has taken up extension and improvement work to its existing Corporate office building and construction of new division offices at

Athani/B.Bagewadi/ due to which capital budget towards civil works has been increased from approved R.5.00 Crores to Rs 29.25 Crores.

- h) In case of Ganga Kalyan scheme, taking into account last year's expenditure booked, capex provision was increased to Rs.50 Crores from the approved Capex of Rs. 25 Crores.
- i) Much emphasis has been given to reduction of T&D loss works which include works such as providing additional/enhancement of DTC's (other than provided in service connection/G.K/I.P.set works) providing new feeders/Link lines/express lines from the newly commissioned substations, re-conductoring of HT/LT line, providing intermediate poles. The Capital budget for the said works has been increased to a tune of Rs. 211.88 Crores against KERC approved budget of Rs. 58 Crores.
- j) The Capital budget was revised from Rs 743.55 Crores to Rs. 1199.71 Crores in 78th BOD of HESCOM subsequent to this effect approval was sought to Hon'ble KERC to enhance/approve capex plan for FY-18 to a tune of 1199.71 Crores on 19.06.2017.

The Commission notes that the above reasons provided are repetition of what has been submitted by HESCOM vide letter dated 19.06.2017, requesting for approval of revised capex for FY17 and FY18. The works /expenditures indicated in sub para-(a) to (f) above are not part of the actual expenditure incurred for FY18.

In reply to HESCOM letter dated 19.06.2017 to enhance/approve the capex plan for FY-18 to 1199.71 Crores, Commission vide letter dated 23.07.2017 had intimated its observations in respect of Model Electricity Village, Smart Meter and AMI, Providing Solar Rooftop on the Government Buildings, HVDS programme, arranging power supply to farm houses by installing Numerical relays and 16kVA transformers and E&I works and directed to comply with observations and submit the compliance report to the Commission, before taking up any further steps on these works. Further, Commission vide letter dated 27.11.2017 had directed HESCOM to submit a comprehensive capex plan in the ensuing tariff filing, so as to enable the Commission to consider the financial impact of such proposals in the tariff revision process.

The Commission in the MYT Order for FY 16, had directed HESCOM to note that, the failed transformers should be replaced by repaired good transformers only

and it should be charged to revenue expenditure. In case, the failed transformer is scrapped, it can be replaced by a new transformer, which has to be accounted under capital expenditure. Accordingly, capex in this regard was limited to Rs.5 Crores for FY 17, FY18 and FY19. For creating infrastructure to UAIP Sets, HESCOM was directed to take necessary action to complete the regularization of UAIP sets by creating infrastructure.

HESCOM had indicated a capital expenditure programme of Rs.748.55 Crores for FY18 against the Commission approved capex of Rs.743.55 Crores in ARR for FY18 in Tariff order 2017, with an increase of only Rs 5 Crores towards Replacement of failed distribution transformers. **The Commission decides to consider the MYT approved capex of Rs.743.55 Crores only, subject to submission of physical and financial progress along with time lines in respect of the above said works, within a month from the issue of this Order** and directs that, HESCOM should have met 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. Further, in Tariff Order 2018, HESCOM has furnished the capex incurred for the FY18 (till October, 2017) at Rs.507.40 Crores and stated that, the likely expenditure incurred for the FY18 would be at Rs.1100 Crores, owing to taking up of huge number of capital works.

The Commission has entrusted the work of carrying out prudence check of capital expenditure for FY17 & FY18 to the Consultants. On receipt of final report in this regard, the Commission will take a view on disallowance of the costs associated with imprudent works.

The Commission concludes that HESCOM should strictly follow the “Capital Expenditure Guidelines for ESCOMs” in which the capital investment planning process, prioritization and post-commissioning analysis to be adopted by the ESCOMs are elaborated. HESCOM shall furnish details as to whether it has carried out the works according to the above guidelines and directions issued by the Commission.

4.2.8 Interest and Finance Charges:

Interest on Capital loan:

HESCOM's Submission:

HESCOM in its application has claimed an amount of Rs.291.27 Crores towards interest on capital loans drawn from Banks/Financial Institutions for FY18. Considering the average amounts of loans during FY18, the weighted average rate of interest on long term capital loans works out to 11.20%.

Commission's analysis and decisions:

The Commission in its preliminary observation had noted that, the HESCOM in its filings under format D9 had clubbed the both the long term capital loans and the short term loans for FY18. Hence, HESCOM was directed to furnish the Bank / Financial Institution-wise details in the D9 format, for long term and short term loan separately as per the audited account for FY18 and the actuals up to November,2018 duly indicating the details of the opening balance, receipt, repayment, term of loan, rate of interest, purpose of loan, interest amount and the closing balance of loans. The replies furnished by HESCOM is noted and considered appropriately.

The Commission has taken note of the opening and closing balances of capital loans as per the audited accounts for FY18 and the data in Format D-9 of the filings and the additional information furnished by HESCOM to the Commission. Accordingly, on the average long term capital loan of Rs.1805.28 Crores, the weighted average interest rate works out to 11.20% for the interest of Rs.202.15 Crores for FY18 as indicated in the following Table:

TABLE – 4.20

Allowable Interest on Loans – FY18

Amount in Rs. Crores

Particulars	FY18
Total loan at the end of the year	1528.21
Add new Loans	663.29
Less Repayments	109.16
Total loan at the end of the year	2082.34
Average Loan	1805.28
Allowable Net Interest	202.15

The Commission notes the capital loan capital portfolios of HESCOM for FY18. As per the audited accounts of HESCOM for FY18, the actual interest on capital loans is Rs.202.15 Crores. Considering the average loan of Rs.1805.28 Crores and an amount of Rs.202.15 Crores incurred towards interest on capital loans, the weighted average of interest works out to 11.20%. As per the details furnished by the HESCOM to the Commission preliminary observations, the Commission notes that, HESCOM has availed the majority of its capital loan from REC and PFC with the interest rate at 9.50% to 12.75%. The actual weighted average rate of interest is comparable with the prevailing rate of interest for long term loans. However, the Commission directs HESCOM to make efforts to make use of the prevailing favourable banking conditions, offering long term loans at the most competitive rates in future to minimise the burden on the consumers.

Thus, the Commission decides to allow an amount of Rs.202.15 Crores towards interest on capital loans for FY18.

4.2.9 Interest on Working Capital:

HESCOM's Submission:

HESCOM in its application has stated that it has raised short term loans and overdrafts from Commercial Banks and financial institutions to meet its day to day expenditure (working capital) and claimed Rs.38.57 Crores as the interest on working capital without considering the actual amount of interest for FY18.

Commission's analysis and decisions:

The Commission notes that, HESCOM in its replies to the preliminary observation and as per the audited accounts, has incurred Rs.123.44 Crores as interest on short term loans/over drafts for FY18. The Commission notes that HESCOM has wrongly considered certain amount of interest on working capital under interest on capital loan head. As per the replies to the preliminary observations of the Commission and the additional information submitted by the HESCOM, the short term loans, medium term and the overdraft are availed at the interest rate of 11% to 13% from the REC, PFC and Commercial banks.

The Commission, in its Tariff Order dated 11^h March, 2017, while approving the APR FY16, had considered the rate of working capital interest at 11.00%, based

on the interest rate prevailing at that time. The Commission notes that, the rate of interest at which the medium / short term loans and overdrafts were availed by the HESCOM, during FY18, is on the higher side when compared to the interest rate at which the other ESCOMs have borrowed the working capital. The HESCOM has not taken advantage of the reduction in the rate of interest in the Banking sector, while availing its requirement of working capital. Thus the Commission decides to allow the working capital loan at a normative interest rate of 11.00% for FY18.

The Commission directs the HESCOM that the working capital loans shall be availed at lower rates in view of the reduction of interest rates by the Bankers/financial institutions, in order to minimise the interest burden on the consumers.

As per the KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail Sale of Electricity) Regulations, 2006 and amendments thereto, the Commission has computed the allowable interest on working capital for FY18 as follows:

TABLE – 4.21

Allowable Interest on Working Capital for FY18

Rs. Crores

Particulars	FY 18
One-twelfth of the amount of O&M Exp.	70.62
Opening GFA as per Provisional Accts	4461.70
Stores, materials and supplies 1% of Opening balance of GFA	44.62
One-sixth of the Revenue	1147.92
Total Working Capital	1263.16
Rate of Interest (% p.a.)	11.00%
Normative Interest on Working Capital	138.95
Actual Interest on Working capital	123.44
Allowable In on interest on Working Capital	131.19

Thus, in accordance with the provisions of the MYT Regulations and amendments thereto, the Commission decides to allow the interest on working capital of Rs.131.19 Crores for FY18.

4.2.10 Interest on Consumer Deposits:

HESCOM's Submission:

HESCOM, in its application, has claimed an amount of Rs.43.30 Crores towards payment of interest on consumers' security deposits for FY18, as per the audited accounts.

Commission's analysis and decisions:

The Commission notes that, based on the average amount of consumer security deposits, the interest on consumer security deposits of Rs.43.30 Crores as claimed by HESCOM, as per the audited accounts is within the allowable bank rate of 6.75% for FY18. As per the KERC (Interest on Security Deposit) Regulations, 2005, the interest on consumer deposits shall be allowed as per the bank rate prevailing on the 1st of April of the relevant year. The bank rate as on 1st April, 2015 was 6.75%. The weighted average rate of interest claimed by HESCOM as per the audited accounts is within the applicable bank rate.

Thus, the Commission decides to allow an amount of Rs.43.30 Crores towards interest on consumer security deposits for FY18.

4.2.11 Other Interest and Finance charges:

HESCOM, has not claimed any amount towards other interest and finance charges for FY18.

Commission's analysis and decisions:

The Commission notes that, the HESCOM has incurred an amount of Rs.4.26 Crores towards other interest and finance charges as per the audited accounts for FY18, which is allowed by the Commission.

The allowable interest and finance charges for FY18 are as follows:

TABLE – 4.22**Allowable Interest and Finance Charges**

Amount in Rs. Crores

Sl. No.	Particulars	FY18
1.	Interest on capital Loans	202.15
2.	Interest on working capital	131.19
3.	Interest on consumer deposits	43.30
5.	Other interest and finance charges	4.26
	Total interest and finance charges	380.91

4.2.12 Other Debits:**HESCOM's Submission:**

HESCOM, in its application, has claimed a net amount of Rs.25.49 Crores towards other debits for FY18, as per its audited accounts.

Commission's analysis and decisions:

The Commission notes that as per the audited accounts, the allowable other debits excluding the provision for bad and doubtful debts for FY18 is 22.24. The allowable other debits are works out as under:

TABLE – 4.23**Allowable Other Debits for FY18**

Amount in Rs. Crores

Sl No	Particulars	FY18
1	Losses relating to fixed assets	0.08
2	Gain on sale of assets	-0.01
3	Assets decommissioning cost	1.02
4	Miscellaneous losses and write offs	7.32
5	Material cost variance	13.82
	Total	22.24

Thus, the Commission by excluding the provisions for bad and doubtful debts amounting to Rs.3.25 Crores, decides to allow Rs.22.24 Crores towards other debits for FY18.

4.2.13 Prior Period Charges(Debit)/income(credit):**HESCOM's Submission:**

HESCOM in its application has not claimed any Prior Period charges for FY18.

Commission's analysis and decisions:

The Commission notes that, as per the Audited Accounts for FY18, the prior period expenses (debit) are indicated as Rs.16.42 Crores which are towards short / under provision in the previous year for employee costs, power purchase cost, depreciation, A&G expenses, interest and finance charges and other expenses relating to earlier years. HESCOM, in its filing, has shown the prior period income of Rs.56.16 Crores under other income head relating to excess provision made in the prior periods for depreciation, interest and finance charges, other income / receipts from consumer and other excess provisions in prior periods. However, as per the provisions of the MYT Regulations and as per the audited accounts, the Commission has considered the allowable net prior period credit income of Rs.39.74 Crores For FY18.

Thus, the Commission decides to allow a net prior period income (credit) of Rs.39.74 Crores for FY18.

4.2.14 Return on Equity:**HESCOM's Submission:**

HESCOM in its application has not claimed any Return on Equity for FY18.

Commission's analysis and decisions:**i. Debt Equity Ratio Vis-à-vis GFA:**

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

TABLE – 4.24
Status of Debt Equity Ratio for FY18

	Rs. Crores						
	GFA (Actuals)	Debt (Actuals)	Equity (Net- worth) (Actuals)	Normative Debt @ 70% of GFA	Normative Equity @ 30% of GFA	%age of actual debt on GFA	%age of actual equity on GFA
Opening Balance	4461.70	1528.21	-1328.41	3123.19	1338.51	34.25	-
Closing Balance	5418.30	2082.34	-1268.34	3792.81	1625.49	38.43	-

From the above table it is evident that the amounts of debt & equity are within the normative amounts as per the debt equity ratio of 70: 30 on the closing balances of GFA for FY18.

ii. RoE Allowable:

As per the KERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 and amendments thereto, the Commission has computed the allowable Return on Equity at 15.5% on share capital plus the accumulated balance of profit/loss under Reserve & Surplus as per audited accounts as at the beginning of the year and also factoring recapitalization of security deposit of Rs.34.00 Crores in compliance with the Orders of the Hon'ble ATE in appeal No.46/2014. Accordingly, the total negative net-worth at the beginning of FY18 is Rs.1328.41 Crores.

Further, as per the audited accounts and as reported by the HESCOM, an additional equity of Rs.200.35 Crores has been received during the year from Government of Karnataka. Even after considering the additional equity infused by the GoK during FY18, the negative net worth as at the year is Rs.1328.41 Crores and hence, the Commission is unable to allow any return on equity for FY18.

4.2.15 Other Income:

HESCOM's Submission:

HESCOM in its application has claimed an amount of Rs.120.07 Crores as Other Income for FY18.

Commission's analysis and decisions:

The Commission notes that as per the audited accounts, the other income is Rs.63.91 Crores for FY18. This includes income from sale of scrap, income from rent, interest on Bank deposit, miscellaneous receipts, processing fees, reactive energy charges, meter reading and calibration charges, rebate on collection of electricity charges and other recoveries. The Commission further notes that HESCOM in its filing has included the prior period income of Rs. 56.16 Crores under Other income item. The Commission as made out in the pre para, has allowed the same under prior period charges income for FY18. As decided in the earlier Tariff Orders, to encourage and bring in financial discipline in timely payment of monthly power purchase bills, the Commission continues to allow 10% of the total incentive amounting to Rs.0.0978 Crores on account of timely payment of power purchase bills to be retained by HESCOM for FY18.

Thus, the Commission decides to allow an amount of Rs.63.81 Crores as other income for FY18.

4.2.16 Fund towards Consumer Relations / Consumer Education:

The Commission has been allowing an amount of Rs.0.50 Crore per year towards consumer relations / consumer education. HESCOM in its filing has claimed an amount of Rs.0.01 Crores towards Consumer Relations / Consumer Education for FY18. The Commission in its preliminary observations had directed the HESCOM to furnish the break-up details for having incurred the expenditure towards consumer's relation/education during FY18 HESCOM in its reply has submitted the details of expenditure made on consumer education and also the other expenditure of mobile subscription charges, printing of calenders etc which is not provided for. The actual expenditure incurred towards consumer relations education is Rs.0.20 Crores for FY18.

Thus, the Commission decides to allow only Rs.0.20 Crores towards the consumers' relation education for FY18.

4.2.17 Extraordinary Items

HESCOM in its application has claimed an amount of Rs.102.90 Crores for FY18 towards the adjustment of excess subsidy received during FY09, as per the Order of the Commission in approval of APR for FY09 dated 23.04.2015 and subsequent GoK Order No. EN 38 PSR 2015 dated 31.03.2016.

Commission Views / Decisions:

The Commission notes that, the claims made by HESCOM in its application towards the exceptional items of adjustment of excess subsidy accounted and received during FY09. The Commission in its Order dated 23.04.2015, in approving the revised ARR as per APR had directed HESCOM to adjust the excess subsidy received during FY09 in five equal installments out of the subsidy amount receivable from FY16 onwards.

Accordingly, in compliance of the Order of the Commission and as per GoK order dated 31.03.2016, mere accounting the excess amount of subsidy received in previous years in the accounts of the subsequent years cannot be treated as an item of expenditure in determination and approval of APR/ARR. In view of the above, the Commission is unable to accept the claims made by HESCOM to allow an amount of Rs.102.90 Crores under exceptional items in the APR for FY18.

4.2.18 Revenue for FY18:

HESCOM, in its application has considered Rs.6887.54 Crores as revenue from sale of power from tariff and miscellaneous charges.

As per the audited accounts for FY18, the revenue from sale of power is Rs.6887.55 Crores.

Accordingly, the Commission decides to consider Rs.6887.55 Crores as revenue from sale of power to consumers in the approval of revised ARR as per APR of HESCOM for FY18.

4.2.19 Revenue and Subsidy for FY18:

The Commission in its Tariff Order dated 11th March, 2017 has approved the tariff subsidy of Rs.128.74 Crores and Rs.3608.53 Crores towards the sale of

power to BJ/KJ and IP sets installations for FY18 respectively, in accordance with the prevailing Policy of the Government of Karnataka in the matter of free power supply to BJ/KJ installations and IP sets installations of 10HP & below. HESCOM, in its application has claimed an amount of Rs.120.22 Crores and Rs.3724.35 Crores towards Tariff subsidy for BJ/KJ and IP sets installations for FY 18.

The Commission notes that, as per the audited accounts of HESCOM, Rs.120.22 Crores, and Rs.3724.35 Crores respectively has been factored as tariff subsidy for BJ/KJ and IP Set installations for FY 18. Thus the Commission, while computing the revised ARR as per APR for FY18, has considered the tariff subsidy of Rs.3844.57 Crores, towards sale of power to BJ/KJ and IP sets installations for FY18. Accordingly, the net difference in the tariff subsidy of Rs.107.30 Crores shall be payable by the Government of Karnataka to HESCOM for FY18.

4.3 Abstract of Approved ARR for FY18:

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

TABLE – 4.25

HESCOM's Approved revised ARR for FY18 as per APR

Sl. No	Particulars	Amount in Rs. Crores		
		As approved 11.04.2017	As Filed 30.11.2018	FY18 As per APR
1	Energy at Gen Bus in MU	13283.89	12716.05	12731.11*
2	Transmission Losses in %	3.37%	1.29%	1.41%
3	Energy at Interface in MU	12508.36	12552.36	12551.96
4	Distribution Losses in %	15.50%	14.76%	14.76%
	Sales in MU			
5	Sales to other categories	4398.08	4443.96	4443.96
6	Sales to BJ/KJ	197.10	201.20	201.20
7	Sales to IP	5974.38	6054.12	6054.12
	Total Sales	10569.56	10699.28	10699.28
	Revenue			
8	Revenue from tariff and Misc Charges	3053.89	3042.97	3042.98
9	Tariff Subsidy for BJ/KJ	128.74	120.22	120.22
10	Tariff Subsidy for IP	3608.53	3724.35	3724.35
	Total Revenue	6791.16	6887.54	6887.55
	Expenditure			
11	Power Purchase Cost	4966.95	5803.83	5803.96
12	Transmission charges of KPTCL	535.48	535.48	535.48
13	SLDC Charges	5.39	5.54	5.41

Sl. No	Particulars	FY18		
		As approved 11.04.2017	As Filed 30.11.2018	As per APR
	Total Power Purchase Cost	5507.81	6344.85	6344.85*
14	Employee Cost		687.72	
15	Repairs & Maintenance		58.48	
16	Admin & General Expenses		127.88	
	Total O&M Expenses	744.36	874.08	847.48
17	Depreciation	130.04	149.03	149.03
	Interest & Finance charges			
18	Interest on Loans	180.23	291.27	202.15
19	Interest on Working capital	126.71	38.57	131.19
20	Interest on belated payment on PP Cost	0.00	115.42	0.00
21	Interest on consumer deposits	49.01	43.30	43.30
22	Other Interest & Finance charges	0.00	0.00	4.26
23	Less: interest capitalized	0.00	0.00	0.00
	Total Interest & Finance charges	355.94	488.56	380.91
24	Other Debits	0.00	25.49	22.24
25	Net Prior Period Debit/Credit	0.00	0.00	-39.74
26	Extraordinary Items	0.00	102.90	0.00
27	Return on Equity	0.00	0.00	0.00
28	Provision for taxation	0.00	0.00	0.00
29	Funds towards Consumer Relations/Consumer Education	0.50	0.01	0.20
30	Other Income	-170.73	-120.07	-63.81
	ARR	6567.92	7864.85	7641.17
31	Deficit for FY16 carried forward	223.23	0.00	0.00
32.	Disallowance for imprudent CAPEX	0.00	0.00	0.00
32	Penalty / Incentive on excess losses / reduced beyond targeted losses	0.00	0.00	8.83
	Net ARR	6791.15	7864.85	7650.00

*Excluding HRECS

4.3.1 Gap in Revenue for FY18:

As against an approved ARR of Rs.6791.15 Crores, the Commission, after the Annual Performance Review of HESCOM, decides to allow the revised ARR of Rs.7650.00 Crores for FY18. Considering the revenue of Rs.6887.55 Crores, the deficit in revenue of Rs.762.45 Crores is determined for the year FY18.

The Commission decides to carry forward the deficit of Rs.762.45 Crores of FY18 to the proposed ARR for FY20 as discussed in the subsequent Chapter of this Order.