ಹುಬ್ಬಳ್ಳಿ ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ನಿಯಮಿತ

(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಸಂಪೂರ್ಣ ಸ್ವಾಮ್ಯಕ್ಕೆ ಒಳಪಟ್ಟದೆ.) ಪ್ರಧಾನ ವ್ಯವಸ್ಥಾಪಕರು (ತಾಂತ್ರಿಕ) 1ನೇ ಮಹಡಿ, ಕಾರ್ಪೋರೇಟ್ ಆಫೀಸ್, ನವನಗರ, ಪಿ.ಬಿ.ರೋಡ, ಹುಬ್ಬಳ್ಳಿ – 580 025.



HUBLI ELECTRICITY SUPPLY COMPANY LIMITED

(Wholly owned Govt. of Karnataka undertaking)
General Manager (Tech)
I Floor, Corporate Office,
Navanagar, P.B.Road, Hubballi–580025

Cell: +91 94483 70226

E-mail ID: gmt.hescom@gmail.com

Corporate Identity Number (CIN): U31401KA2002SGC030437

No: HESCOM/GM (T)/EE-RA/AO/19-20/ \u9\18
Encl: 1 original + 10 photo copies.

Date: 3 1 DEC 2019

To,
The Secretary,
Karnataka Electricity Regulatory Commission,
No. 16, C-1, Millers Bed Area,
Vasant Nagar,
Bengaluru-560 052.

Sir,

Sub: Compliance of Preliminary Observations on HESCOM's application for approval of APR for the FY-19 and ARR for the FY-21.

Ref: Your Letter No: B/07/19/1130 Dtd: 17.12.2019.

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Adverting to the above, I am directed to submit the Compliance of Preliminary Observations on HESCOM's application for approval of APR for the FY-19 and ARR for the FY-21 along with annexures in 1 original + 10 photo copies for kind perusal.

Yours faithfully,

Executive Engineer (EI)
RA Section

BEFORE KARNATAKA ELECTRICITY REGULATORY COMMISSION AT, BENGALURU.

FILLING No.... Case No....

In the matter of:

An Application for Approval of Annual Performance Review for FY-19 and Approval for ARR & ERC FY-21 under Section 61 & 62 of the Electricity Act, 2003 read with relevant Regulations of KERC (Tariff) Regulations including KERC (Terms and Conditions for Determination of Tariff for Distribution and Retail Sale of Electricity) Regulations, 2006, MYT Order No. D/01/6 dated 31-05-2006. The Compliance of Preliminary Observations on HESCOM's application for approval of APR for the FY-19 and ARR for the FY-21.

In the matter of:

Hubli Electricity Supply Company Limited, Corporate Office, Navanagar, P.B. Road, Hubli-580025.

AFFIDAVIT

I, Padmashree K. T. wife of Sri Hanmanthappa aged 35 years, working at Corporate Office, HESCOM, P.B. Road, Navanagar, Hubballi -580025, do solemnly affirm and say as follows.

I am the Addl. Charge of Executive Engineer (El), Regulatory Affairs, Corporate Office HESCOM Hubballi and I am duly authorized to submit the application for approval of APR for FY-19, approval of ARR & ERC for FY-21 and Tariff Filing for FY-21 before the Hon'ble Commission.

The compliance for Preliminary Observations on the Applications for approval of APR for FY-19, ARR & Retail Supply Tariff for FY-21 herein now shown to me are true to my knowledge and the statements made in the application are based on information I believe them to be true and correct.

Solemnly affirmed at Hubballi on this day 31st December, 2019 that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Place: Hubballi

Date: 31.12.2019

BG. Danden Advandet Adding

Reg. SI NA:

No. of Corrections

NOTARY



Executive Engineer (EI)

RA Section HESCOM, Navanagar, Hubballi – 580025.

> Notarial Stamps are not Supplied by Government of Kamataka

SOLEMNLY AFFIRMED BEFORE ME

NOTARY

3 1 DEC 2019

HESCOM

Preliminary Observations on the Applications filed by the HESCOM for APR for FY19 and approval of Revised ARR & Retail Supply Tariff for FY21 under MYT Framework

1. Capital Expenditure:

a) Capex for FY19:

As per the tariff application, HESCOM has incurred capex of Rs 977.86 Cores as against approved capex of Rs 1298.16 Cores for FY19. The Commission has made the following observations:

i. The Commission, in the Tariff Order 2019, had directed HESCOM to maintain the physical as well as financial progress in respect of the works carried out under the Capex indicating timelines of completion, cost to benefit ratio, etc. and to furnish these details to the Commission as and when Commission directs. The Commission, during the course of Annual Performance Review for FY18, had directed HESCOM to submit the physical and financial progress of the said capex works for FY18.

The Commission directed 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 was directed to furnish details as to whether it has carried out the works according to the above guidelines and directions issued by the Commission.

COMPLIANCE:

HESCOM has incurred capex of Rs. 977.86 Crores as against approved capex of Rs. 1298.16 Crores which stands 75.32% expenditure booked. The commission has directed HESCOM to submit physical and financial progress of capex for FY-19 in its Annual performance review meeting. The copy of Financial and Physical progress achieved by HESCOM is as tabled below for the FY-19.

Executive Engineer (EI)

RA Section

Corporate Office, Harcom

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HESCOM Capital budget proposal & achievement for 2018-19:

Sl.	Scheme	Ta	rget	Achievem	ent	Remarks	
No.	Scheme	Physical	Financial	Physical	Financial	Kemarko	
ĵ.	Mandatory works, Social obligation and other						
a	works Gangakalyan total	3527	64.44	6289	80.1	1531 Nos of applications are pending for Energisation at the end of March-2019	
b	Special Development Plan for backward talukas under Nanjundappa scheme(SDP)	559	15.68	435	17.62		
c	Electification of Hamlets(Not covered under RGGVY)	752	7.00	5	0.12		
d	Electification of HB/DB/JC/AC (Habitations) including IP Sets under SCSP	264	2.17	790	10.49		
e	Electification of TC(Habitations) including IP Sets under TSP	408	2.17	249	2.24		
f	Electification of BPL Households (Not covered under RGGVY)	4545	4.00				
g	RGGVY	8036	2.86		0.43		
h	DDUGVY	0	65.64	2 Nos & 73% overwork progress achieved	62.29		
	Soubhagya Yojane	0	6.00	52026	1.66		
í	DDG (Phase-1 & Phase-2) Rehabilation of flood affected villages(special						
j	programme).					234 Nos of applications are	
k	Water works	2435	28.64	1141	0.55	pending for Energisation at the end of March-2019	
	Sub - total		198.60		175.50		
2	Expansion of network and system improvement works.						
а	E & I works.	3383	83.59		62.39		
	Replacement of broken poles / Disaster Management Works	1818	12.96				
b	Energisation of IP sets under general.	3354	24.17	5464			
c	Energisation of IP sets as per GOK	6984	110.00	222993	119.13		
d	Service connections other than IP/BJ/KJ/Water works.	64731	18.85		9.17		
e	Construction of new 33 KV stations	12	35.00	4	38.47		
f	Construction of new 33 KV lines.	176.81	27.79	72.02			
g	Augmentation of 33 KV stations.	36	26.32	6	7.82		
h	Construction of 11 KV lines for 33 KV / 110 KV sub-stations.	142	25.00	273.9	9		
ì	Nirantar Jyoti Yojana.	390	31.07	22	48.96	Phase-I&II is completed in all respect and 08 feeders were pending at the end of March-201 in Phase-III and are commissioned in the month of May-2019 - 06 Nos , July-2019- 2 Nos.	
	Improvement Works at 5 Nos of Villages in each MLA Constituency & 5 Nos of Villages in each MP Constituency under MADARI VIDUYAT GRAM .	0	43.60	76 Nos	0.52		
	Providing prepaid meters to temporary installations	0	3.65	0			
	Providing numerical relays to provide power supply to farm houses	0	7.30	142	2.72	Out of balance 36 Nos as at the end of March-2019, 21 Nos were commissioned at the end of November-2019	
	Providing 16KVA Transformers for A/P/S to farm houses in Chikkodi Division	52	5.01	80	0	Out of balance 182Nos,80 Nos of DTCs are erected.	
	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	0	4.47	8,36,647No's of IP Sets are Enumerated against 9,19,109 (March-19 DCB) No's 91.02%			
j	R- APDRP.	0	0.16		3.69		

Executive Engineer (EI)

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k	R-APDRP exclusively for Modem and meters	81	0.55			
	IPDS IT initiative Phase II	0	10.57			
1	IPDS	387	60.36	2 Nos & 62% Overall Works Progress achived	61.65	
m	Creating infrastructure to UAIP Sets	3100	15.00	4074	56.22	
ii	Sub - total		545.42		419.74	
3	Reduction of T & D and ATC loss					
a	Providing meters to un-metered IP sets.	21075	5.26		0.01	
b	Providing meters to un-metered BJ/KJ installations. Replacement of faulty / MNR energy meters by	7359	1.24	RA section	0.06	
c	static meters. Replacement of more than 10 year old	61236	5.69		3.83	
d	electromechanical energy meters by static meters.	365364.0 104	22.60	83635	0	
	Fixing of boxes to Single Phase Meters	0	10.00	· ·	-	
e	DTC's metering (Other than APDRP)	17334	15.66	2800	17.28	*said expenditure is towards the retention amount held and monthly maintenance bills.
f	Replacement of 33 KV lines Rabbit conductor by Coyote conductor.	492.04	15.94			• • • • • • • • • • • • • • • • • • • •
g	11 KV Re-conductoring.	531.25	26.70	445.09	1.8	
h	LT Re-conductoring.	960.23	30.00	1733.22	13.32	
i	HVDS	0	10.00	0		
j	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubli Dharwad and Belgaum cities.	0	70.00	286	116.49	
	Replacing 11 KV OH feeders by UG Cables in Dharwad and Vijayapur cities.	0	25.00			
	Refurbishing works on HT/LT/DTC in O & M Divisions	0	85.00	171	0	Works under progress
iii	Sub - total		323.09		152.79	
4	New initiatives works					
а	IT initiatives, automation and call centre	45	6.49		7.7	
b	Pilot project of installation of energy efficient motors	181	11.65			
c	Pilot for smart grid/sprinklar/drip irregation system					
d	Providing solar lighting to corporate office building					
e	Establishing ALDC & SCADA.	82	2.82		-0.03	
f	Thermal Imaging and GIS Mapping of DTCs					
g	Special pilot project for Statergic Business Centre at Shiggaon sub-Division	0	1.00			
	Smart Meters	0	40.00	0		
iv	DSM Sub-total	0	1.00		W /	
5	Sub - total Replacement and other miscellaneous works		62.96		7.67	
-	Separation of the graphing Englands and the	0	10.00	25454	405.45	
a	Replacement of failed distribution transformers.	0	10.00	25156	135.45	
b	Replacement of Power Transformers. Replacement of old and failed equipments and	13	6.57		0.82	
C	other works of existing 33 KV stations and lines.	302	14.54		12.23	
d	Preventive measures to reduce the accidents. (Providing intermediate poles, Restringing of sagging lines, providing guy & studs, providing guarding, DTC earthing)	3232	40.00		27.57	
e	T&P materials.	0	5.00		0.6	
f	Civil Engineering works.	433	42.84		43.74	
g	Others		50.00		1.75	
V	Sub - total		168.95		222.16	
	Total (i+ii+iii+iv+v)		1299.02		977.86	

ii. The Commission had also directed HESCOM to prioritize the works and incur expenditure with in the approved capex and that it shall not incur the capex over and above the approved capex and shall not approach the Commission for approval of additional capex in the middle of the financial year. While prioritizing the works, HESCOM shall take up such work which ensure system improvement to enable quality, and reliable power to the

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consumers besides ensuring reduction of distribution losses in order to reduce the burden of losses to the consumers.

COMPLIANCE:

The directions of the commission in respect of capital works will be followed strictly and time to time adoption of guidelines and orders by Hon'ble Commission will be the soul motto. HESCOM as per the approval of Hon'ble Commission, the work which are absolutely essential are included in the Annual capex plan with prioritization of works and other essential parameters will also be considered like post -commissioning analysis etc., while incorporating capital works in year plan. Much emphasize on system improvement works is given in order to bring down the distribution loss to best possible lower level and also works on quality and reliable power supply to consumer are under taken. HESCOM is taking due care to incur capex within the approved figure by Hon'ble Commission, however in case of natural disaster like flood which occurred during this year damaging huge distribution infrastructures, HESCOM may be forced to incur additional expenditure to restore power supply. Hon'ble Commission is kindly requested to consider in such cases.

- iii. The Commission had also directed the HESCOM to put in effective efforts towards achieving the following objectives while proposing schemes under capex, on a priority basis:
 - 1. Reducing distribution losses;
 - 2. Reducing the HT:LT Ratio;
 - 3. Reduce Transformer failures;
 - 4. Segregate the loads in the feeders;
 - 5. Reduce Power theft:
 - Taking up programs for the awareness among the people on usage and conservation of energy;
 - 7. Improve the sales to metered category to improve its cash flows;
 - 8. Improve the Power factor of the IP set loads by installing switched capacitors of suitable capacity to the secondary of the transformers.

COMPLIANCE:

As per the directions of the Hon'ble Commission while proposing schemes under capex, due care is being taken on priority to achieve the following objectives.

- Reducing distribution losses;
- Reducing the HT:LT Ratio;
- Reduce Transformer failures:
- Segregate the loads in the feeders;
- Reduce Power theft;
- Taking up programs for the awareness among the people on usage and conservation of energy;
- Improve the sales to metered category to improve its cash flows;

Improve the Power factor of the IP set loads by installing switched capacitors
of suitable capacity to the secondary of the transformers.

Executive Engineer (EI)

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Corporate Office, Harrison Navanagar, Hubbar 19925 iv. The Commission notes that HESCOM has not furnished the feedback on the above and has not complied with the Commission's directives, till date.

HESCOM shall submit to the Commission, the compliance on the above as per the directions given in the Tariff Order 2019.

COMPLIANCE:

HESCOM enduring to its best efforts on reducing distribution losses many system improvement works such as providing additional distribution transformers, proper sizing of conductor and maintaining HT/LT ratio, vigilance activities to curb the thefts, mass awareness programmes on conservation of energy and improve the sales by means of increasing metered category installations to have the better cash flow are undertaken. A elaborated details of works under taken by the HESCOM are detailed in next paragraphs with this for kind consideration of Hon'ble Commission.

v. HESCOM has stated that it has incurred capex of Rs 977.86 Crores as against approved capex of Rs 1298.16 Crores for FY19. As per the details filed in the tariff application HESCOM has not utilized any amount in respect replacement of more than to related of works electromechanical energy meters by static meters, replacement of 33kV lines Rabbit conductor by Coyote conductor, Smart City/Smart meters and underutilized the capex in respect of works related to DTC Metering. This clearly shows the lack of seriousness in reducing and analysing the technical and commercial losses and to improve the system. Also no capex is incurred in respect of works related to electrification of BPL households (Not covered under RGGVY), Maadari Grama (Model village) and underutilized the capex in respect of works related to Electrification of Habitations which are not covered under RGGVY, DDUGJY, RGGVY, Extension & Improvement, Nirantara Jyothi Yojana, R-APDRP, which involves strengthening the distribution system and increasing the demand by providing reliable supply.

COMPLIANCE:

Hon'ble Commission in its preliminary observations has mentioned that HESCOM has not utilized Capital Budget allocated in respect of works related to replacement of more than 10-year-old electromechanical energy meters by static meters, replacement of 33kV lines Rabbit conductor by Coyote conductor, Smart City/Smart

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Executive Engineer (EI)

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meters and under-utilized the capex in respect of works related to DTC Metering. Also no capex is incurred in respect of works related to electrification of BPL households (Not covered under RGGVY), Maadari Grama (Model village) and underutilized the capex in respect of works related to Electrification of Habitations which are not covered under RGGVY, DDUGJY, RGGVY, Extension & Improvement, Nirantara Jyothi Yojana, R-APDRP, which involves strengthening the distribution system and increasing the demand by providing reliable supply. Project / Works wise capital expenditure made during FY-19 is as follows. Progress was achieved under Capex in FY19 with the objective of reducing distribution losses, reducing the HT:LT Ratio, reduction of distribution transformer failures etc,. as a main objective and some of the works carried out are as follows;

- i) Construction of 33/11kV sub-stations:04 Nos
- ii) Construction of 33kV Lines:72.02Kms
- iii) Augmentation of 33/11kV sub-station:06 Nos
- iv) Construction of 11kV Line:273.90Kms
- v) Reconductoring of 11kV lines:445.09Kms
- vi) Reconductoring of LT lines:1733.22Kms
- vii) Metering works: under DDUGJY- 282596Nos & IPDS- 112139Nos.
- viii) Electrification of SC/ST colonies: 27 Nos
- ix) Creation of infrastructure to IP Sets: 625 Nos

HESCOM has not utilized amount in respect of following works in FY19 due to following reasons:

a) Replacement of more than 10 year old electromechanical energy meters by static meters:

HESCOM has taken up replacement of existing Electromechanical /High precision meters by static meters by GOI sponsored DDUGJY-519088 Nos and IPDS schemes-210843 Nos for the restricted quantity as per the sanctioned cost under these schemes. During FY19 the progress of 394735 Nos were achieved under these schemes.

Similar work of Replacement of more than 10 year old Electro mechanical energy meters by static meters for the balance available 6,36,752 nos of installations was awarded for an award cost of 152.89 Crores on 09.03.2018 and a progress achieved was 83635 nos. in FY19. However, the expenditure was not booked in this FY19. Project to complete in next two years.

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RA Section

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- b) Replacement of 33kV lines rabbit conductor by Coyote Conductor: The provision of Rs.15.00 Crores was made towards this work in FY 19 as a measure for any of the left out 33kV feeders since the reconductoring of almost all the 33kV feeders in HESCOM is carried out by Coyote ACSR.
- c) DTC Metering: HESCOM has taken up Metering of 40793 Nos of Un Metered Non IP set DTCs in all the Non-RAPDRP Town Areas and Rural Areas in all O & M Divisions of HESCOM Jurisdiction in two Phases (Phase-I & II) in FY 2013-14 & FY 2014-15 for total award cost of Rs. 181.20 crores and works are completed in FY 2014-15 and FY 2015-16.
- d) Maadari Grama (Model village): The SI works in 328 villages were taken up under Maadari Grama for which the works were awarded on June-2018. Due to abnormal delay in finalization of getting the village names from the elected representative has delayed onward activities such as tendering and finalization of works. Since the works were in initial stage, less expenditure was booked in FY19.
- e) Electrification of BPL households (Not covered under RGGVY), and underutilized the Capex in respect of works related to Electrification of Habitations which are not covered under RGGVY, DDUGJY, RGGVY, Extension & Improvement: The rural electrification works in HESCOM including electrification of BPL households & Habitations were executed under on-going DDUGJY scheme which was awarded on April -2017. Hence, there was underutilization of Capex in respect of these works in FY19.
- Nirantara Jyothi Yojana: Total expenditure of Rs 49.91 Crores was made against the provisioned capex amount of Rs 31.07 Crores. Hence the provisioned budget has been utilized fully.

In HESCOM totally there were 48 Talukas, out of which 11 Taluks in Uttara- Kannada Districts which are already being fed with 24 Hrs power supply and hence they are excluded from NJY Scheme. Pilot Project has been implemented in three Talukas namely Bailhongal in Belgaum District, Shiggaon & Savanur Taluks in Haveri District. In the remaining 34 Taluks, it was proposed to implement NJY works in 2 -phases as hereunder.

Phase-I; covering 20 Talukas and No. of feeders proposed were 242 Nos.

Phase-II; covering 14 Talukas and No. of feeders proposed were 202 Nos.

Phase-III; covering all Talukas (except Uttar Kannada) and No. of feeders proposed were 92 Nos.

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Executive Engineer (E) Committee Office, Headpin MS CAE - MONDON DEPURSUSM

Phase-III

Initially a decision was taken to take up NJY works under phase-I & II covering 34 Talukas excluding the areas covered under RLMS. Later on it was felt necessary to take up NJY works in the areas covered under RLMS also. Hence DPRs were prepared to take up NJY works under Phase-III involving estimated cost of Rs 117.03 Crores and accordingly M/s REC have sanctioned loan to the tune of Rs 101.76 Crores. Till date Rs. 78.50 Cr expenditure has been booked for NJY works under Phase-III The details of works proposed are as hereunder.

No. of feeders proposed: 92

No. of villages to be covered: 575

Estimated cost in Rs Crores: 117.03

Further common PQRs were stipulated for the subject tenders and approved by GOK. Accordingly, District-wise tenders have been floated for Belagavi, Dharwad, Haveri and Gadag. The Detailed Work Awards have been issued for all packages.

Further the progress achieved by the end of July-2019 is as hereunder.

Total No of feeders Proposed - 92 Nos.

No. of feeders commissioned -92 Nos.

No. of Villages electrified so far-575

Hence, 100% of the work have been completed on 31.07.2019

- g) R-APDRP: R-APRDP Part-B project was completed on 31.03.2015 with an expenditure of 51.134 Crores.
- vi. It is observed that HESCOM has incurred Rs.135.45 Crores towards replacement of failed distribution transformers as against an approved amount of Rs. 10 Crores. The Commission, in the MYT Order for FY16, had directed HESCOM to note that, the failed transformers should be replaced by repaired good transformers only and the expenditure thereon should be accounted under 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. HESCOM shall explain as to why the capex of RS. 135.45 Crores is spent on replacement of failed transformers and debited to capital expenditure despite clear direction in the matter.

Executive Engineer (EI)

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Further, HESCOM in its filing has indicated 25204 number of distribution transformers have failed during FY19, which constitutes 11.68% of the total number of DTC's that existed in the Company as at end of FY19. The Commission notes that the failure rate of DTC's in HESCOM is abnormal as compared with the failure rates in other ESCOMs. HESCOM shall undertake necessary analysis and furnish the details on this issue along with the action plan proposed to reduce the failure rate of DTC.

HESCOM, shall also furnish the details of division-wise and capacity-wise transformers failed, repaired, repaired transformers issued to the field and failed transformers considered as not repairable, replacement of failed transformers with new transformers and the balance of transformers yet to be repaired during FY19 and also the status thereon upto 30.11.2019 during FY20.

COMPLIANCE:

In respect of replacement of failed distribution transformers, the Hon'ble Commission in its Tariff Order dated 30.03.2016 has ordered 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.

In HESCOM as far as possible the failed distribution transformers are being replaced by repaired good transformers. However, in case of non-availability of particular capacity of repaired good transformers in the concerned stores, new transformers are being utilized to restore the power supply in time.

When the failed transformers are released and returned to stores, the original value of released transformer is withdrawn from the Asset account along with the accumulated depreciation. A separate repaired good transformer or new transformer will be issued from the stores for restoring the power supply. The repaired good transformers will be valued at their written down value only. However, since this transformer needs to be capitalized once again to the asset account, the same is being passed through Capex accounts.

The above details are submitted for kind perusal with a request to kindly allow HESCOM to continue the existing accounting procedure.

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During FY19, 25204 number of distribution transformers have failed in HESCOM (11.68%) compared to 22679 Nos (11.78%) in FY18 & 20605 Nos (12.33%) in FY17. Hence, there is comparatively reduction in failure rate of distribution transformers in pervious 3 FYs in HESCOM.

Sl. No.	F.Y.	Existing No. of trs. in the division	Tr. Failed in Nos.	Tr. failure rate (%)
1	2016-17	167117	20605	12.33
2	2017-18	192575	22679	11.78
3	2018-19	215873	25204	11.68
4	2019-20	221313	18984	8.58

The details of division-wise and capacity-wise transformers failed, repaired, repaired transformers issued to the field and failed transformers considered as not repairable, replacement of failed transformers with new transformers and the balance of transformers yet to be repaired during FY19 also the status thereon up to 30.11.2019 during FY20 is tabled as below.

Details of transformer failure in HESCOM for the FY-19 and FY-20 (up to Nov-2019) are annexed viz., A(i) A(ii) and B(i) B(ii)

Action taken to reduce Transformer Failure:

The action taken to reduce Transformer Failure:

- 1. The unauthorized IP sets connected to the network are regularized and necessary infrastructure is being created under UNIP schemes.
- Additional DTCs are provided on existing overloaded DTCs under Ganga Kalyana,
 Water supply, IPDS and DDUGJY.
- Stringing of loose span of HT/LT lines under PMREA etc.
- 4. Renewal of earthings and replacement damaged cables
- 5. Balancing the load on the DTCs.
- 6. Over loaded 25kva TC has been enhanced to higher capacity 63kva and 100kva.
- 7. HT/LT Reconductoring works are taken up to avoid snapping of conductors.
- 8. Unauthorized loads are disconnected.
- 9. Additional DTC provided for existing over loaded DTC's.
- 10. LT reconductoring & strengthening of LT line carried out in PMREA account head.
- 11. Frequent maintenance of the existing DTC carried out by maintenance staffs.
- 12. Tree trimming along HT/LT feeders are carried out by maintenance staffs.

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- Repaired good transformer from agency compulsory tested in HESCOM transformer testing bench.
- 14. The failed transformers in transformer testing are proposed to scrap.
- vii. HESCOM shall submit the details of approvals obtained from the Commission for carrying out NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubballi and Belgaum, Refurbishing works on HT/LT/DTC in O&M Divisions, with details of funding and present status

COMPLIANCE:

The works of conversion of 11 KV OH feeders by UG Cables in Hubballi and Belgaum and Refurbishing works on HT/LT/DTC in O&M Divisions were included in respective FY Capital budget which is approved by Hon'ble Commission.

a) Replacing 11 KV OH feeders by UG Cables in Hubballi and Belgaum:

The subject work is awarded to M/s. Asian Fab Tec limited, Bangalore on 11.06.2015 for a total award cost of the project is Rs.566.16 Crores. (Hubli City- Rs.184.23 Cr and Belgaum City is Rs.381.94 Cr).

For this project Rs.510 Crores (for Hubli Rs.130 Crores and for Belgaum Rs.215.37 Crores) loan is sanctioned under National Electricity Fund from REC. REC has sanctioned the additional loan amount of Rs. 35.79 Crores for Hubli city and Rs. 128.37 Crores for Belgaum city.

The works in Hubli CSD-1 & CSD-2 package and Hubli CSD-3 package works are completed on 27.02.2019 and 09.07.2019. In Belgaum City Project, Belgaum CSD-1 and CSD-3 package works are completed and commissioned on 26.10.2018 and 24.12.2017 respectively and Belgaum CSD-2 package work is under progress.

Present progress is as here under,

			Physical	Progress			El .		
	Tr	unk	RMU		Loop		Financial		
City	As per DWA in Kms	Progress in Kms	As per DWA in Nos	Progress in Nos	As per DWA in Kms	Progres s in Kms	Progress in Crores	Remarks	
Belagavi	308.5	273.7	180	178	746.7	735.8	317.0	Work is completed in CSD-1 and CSD-3 Subdivision.	
Hubli	127.5	125.1	121	122	355.4	366.1	173.3	Work is completed	
Total	436.0	398.8	301	300	1102.1	1101.9	490.3		

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b) Refurbishing works on HT/LT/DTC in O&M Divisions:

HESCOM is committed and striving to provide continuous uninterrupted and quality power supply to its consumers. Importance of provide continuous uninterrupted and quality power supply is a primary objective of Company. Defects in the distribution network are the primary reasons for interruption of power supply. Execution of system strengthening and Extension and improvement (E&I) works in the network will eliminate the causes of interruptions thereby providing reliable continuous power supply.

The quantum of defects across the vast network is voluminous. The company decided to address the defects in the network comprehensively and systematically named as Refurbishing works.

Rs 85.00 Crores Budget was approved for the FY2019-20 for refurbishing works and funding is done by the internal resources of HESCOM.

c) Present progress is as here under,

Cl N			No of approved feeders for carrying	Amended DWA amount as per	1	Progress		
SI. No	Name of the Division	Name of the Firm	out Refurbishing works as per 85th Board BoD resolution	85th BOD Resolution Rs in Lakhs	wc	WUP	WTP	Remarks
1	Bailhongal	M/s Rajashree Electricals, Davanagere	24	536.68	00	00	00	Work closed
2	Athani	M/s SS Electricals, Athani	104	3739.40	53	18	33	Work under progress
3	Chikkodi	M/s RR Infrastructure, Nellure	64	2432.80	30	00	12	Work under progress
4	Dandeli	M/s Anup Electricals, Siddapura	22	2251.62	1	10	10	Work under progress
5	Dharwad	M/s Vijaya Electricals, Hubballi	7	149.96	00	00	00	Work closed
6	Honnavara	M/s Aravind Electricals, Bengaluru	20	326.75	13	00	00	Work closed
7	Haveri	M/s Rajashree Electricals, Davanagere	15	228.23	00	00	15	Work closed
8	Indi	M/s Asian Fab Tech, Bengaluru	21	647.80	11	10	00	Work under progress
9	Raibag	M/s Asian Fab Tech, Bengaluru	59	2345.50	7	13	2	Work under progress
10	Sirsi	M/s Anup Electricals, Siddapura	51	2775.89	43	6	2	Work under progress
	Total	73	387	15434.6	158	57	84	

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viii. HESCOM has mentioned that the delay in tendering process was the reason for non-utilization of capex for few works, HESCOM has to furnish the detailed reasoning for non-utilization and underutilization of the capex under different schemes and also the details of grants lost, if any, by its non-utilization, as several works involve grants from the Government. Also, HESCOM shall furnish the effect of non-utilization and underutilization of capex on its AT&C losses, supply of reliable power to installations etc.,

COMPLIANCE:

The grants were timely utilized under various schemes such as DDUGJY, RGGVY, IPDS, SCP/TSP, SDP schemes and no grants were lost in any of the schemes by its non-utilization.

Sl. No.	Scheme	Approved Capital budget for FY 19 vide Tariff Order 2018	Proposal for FY-19 as approved in BOD	Achievement	Difference	Reasons for less expenditure	
1	Mandatory works, Social obligation and other works						
a	Gangakalyan IP sets	50	64.44	80.1	-30.1		
b	Special Development Plan for backward talukas under Nanjundappa scheme(SDP)	20	15.68	17.62	2.38	Works were under process and expenditure was booked in next FY	
c	Electrification of Hamlets(Not covered under RGGVY)	10	2.17	0.12	9,88	Due to ongoing DDUGJY Scheme	
d	Electrification of HB/DB/JC/AC (Habitations) under SCP (Not covered under RGGVY)	20	7	10.49	9.51	Due to ongoing DDUGJY Schem and some works were under	
e	Electrification of TC(Habitations) under TSP (Not covered under RGGVY)	10	2.17	2.24	7.76	process and expenditure was booked in next FY	
f	Electrification of BPL Households (Not covered under RGGVY)	2	4		2	Due to ongoing DDUGJY Scheme	
g	Water works	25	28.64	0.55	24.45		
h	RGGVY	6	2,86	0.43	5.57		
i	DDGUVY	100	65.64	62.29	37,71	Scheme is scheduled for completion upto 31.03.2020. Hence proportinate expenditure is booked	
J	Maadari Grama	65	43.6		65	The works were awarded on June- 2018. Due to abnormal delay in finalization of getting the village names from the elected representative has delayed onward activities such as tendering and finalization of works. Since the works were in initial stage, no expenditure was booked in FY19	
	Sub - total	308	236.2	173.84			
2	Expansion of network and system improvement works.						
а	E & I works.	85	96.55	62.39	22.61		
b	Energisation of IP sets under general.	8	24.17	-	. 8		
C	Energisation of IP sets as per GOK	100	110	119.13	-19.13		
d	Service connections other than IP/BJ/KJ/Water works.	20	18.85	9.17	10.83		
e	Construction of new 33 KV stations and lines.	30	62,79	38.47	-8.47		
f	Augmentation of 33 KV stations.	20	26.32	7.82	12.18	4 50028 502 km 600	
g	Construction of 11 KV lines for 33 KV / 110 KV sub-stations.	25	25	9	16	Works were under process and expenditure was booked in next FY	
h	Nirantar Jyoti Yojana.	10	1.07	51.68	-41.68		
	CONTRACTOR SERVICE SERVICE SERVICE	70	30		70		
i	Providing prepaid meters to temporary installations	5.4	3.65	0.52	4.88		
j	Providing numerical relays to provide	7.3	7.3		∆ 1,7.3		

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	power supply to farm houses					
	Providing 16KVA Transformers for					
k	A/P/S to farm houses in Chikodi Division	6.2	5.01		6.2	
1	R- APDRP.	5	0.16	3.69	1,31	
m	R-APDRP exclusively for Modem and meters	2	0.55		2	
n	IPDS IT initative Phase II	10	10.57		10	
0	IPDS	60.01	60.36	61.65	-1.64	
р	Soubhagya Yojane		6	1.66	-1,66	
q	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		4.47			
ii	Sub - total	463.91	492.82	365.18		
3	Reduction of T & D and ATC loss					
а	Providing meters to un-metered IP sets.	0.25	5.26	0.01	0.24	
b	Providing meters to un-metered BJ/KJ	2	1.24	0.00	1.04	
1556	installations. Replacement of faulty / MNR energy	10	1.24	0.06	1.94	
С	meters by static meters.	10	5.69	3.83	6.17	
d	Replacement of more than 10 year old electromechanical energy meters by static meters.	25	22.6		25	Similar work was taken up under DDUGJY & IPDS schemes and for the remaining quantities tender
e	Fixing of boxes to Single Phase Meters	25	10	9002939	25	was under process
f	DTC's metering (Other than APDRP)	35	15.66	17.28	17.72	
g	Replacement of 33 KV lines Rabbit conductor by Coyote conductor.	15	15.94		15	
h	Replacement of 11 KV lines Weasel conductor by Rabbit conductor.	25	26.7	1.8	23.2	
1	Replacement of age old LT conductor by Rabbit conductor.	20	30	13.32	6.68	Works were under process and expenditure was booked in next F
j	HVDS (Pilot project for 1 district/year)	20	10		20	
k	NEF (REC) for replacing 11 KV OH feeders by UG Cables in Hubli and Belgaum cities.	70	70	116.49	-46.49	
1	Replacing 11 KV OH feeders by UG Cables in Dharwad and Vijayapur cities.		25		0	
iii 4	Sub - total New initiatives works	247.25	238.09	152.79		
a	IT initiatives, automation and call centre	6	6.49	7.7	-1.7	
	Smart Grid	5		45.0.0	5	194-
ь	Providing solar roof tops to HESCOM office buildings	20	11.65		20	
с	Establishing ALDC & SCADA.	3	2.82	-0.03	3.03	
d	Thermal Imaging and GIS Mapping of DTCs	<u> </u>	2,02	-0,03	3.03	
	Special pilot project for Statergic	22	8 840		2	
е	Business Centre at Gadag Division	1	1		1	
f	Smart City /Smart Meters	50	40		50	
g	DSM Projects	1	1		1	
iv	Sub - total	86	62.96	7.67		
5	Replacement and other miscellaneous works					
а	Replacement of failed distribution transformers.	10	10	135.45	-125.45	
b	Replacement of Power Transformers.	8	6.57	0.82	7.18	
c	Replacement of old and failed equipments and other works of existing 33 KV stations and lines.	10	14.54	12.23	-2.23	
d	Preventive measures to reduce the accidents. (Providing intermediate poles replacement of detoriated conductor, DTC earthing etc.)	25	40	27,57	-2.57	
e	T&P materials.	5	5	0.6	4.4	
g	Civil Engineering works.	35	42.84	43.74	-8.74	
f	Creating infrastructre to UAIP Sets	15	15	56.22	-41.22	
h	Refurbishing works on HT/LT/DTC in O & M Divisions	85	85		85	
i	Corporate Office Reserve for Emergency		50			
	Others			1.75	-1.75	
v	Sub - total	193	268.95	278.38		
	Total (i+ii+iii+iv+v)	1298.16	1299.02	977.86		

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Corporate Office, Hescom Navanagar, Hubballi - 580 025 ix. HESCOM shall furnish comments on imprudent works and compliance to the observations and recommendations made, in respect of Final report on Prudence Check of Capital Expenditure incurred by HESCOM during FY17 and FY18, submitted by M/s PWC, as directed in the Commission in its letter dated 11th December 2019.

COMPLIANCE:

With reference to KERC Letter No: KERC / M/ 03/19-20/Vo.VII/1102 Dtd: 11.12.2019 the Compliance to the observations made in the Final report on Prudence Check of Capital Expenditure incurred by HESCOM during FY17 and FY18, submitted by M/s PWC is submitted vide letter No: HESCOM/GM(T)/EE(RA)/ AEE/19-20/14901 Dtd: 31.12.2019.

b) Capex proposal for FY21:

HESCOM in its filing has proposed the revised Capex of Rs.1205.51 Crores under different category of works as against the approved capex of Rs.1025.00 Crores by the Commission in the Tariff Order 2019, for FY21. HESCOM, in its filing as per Format-17, has indicated the capital expenditure of Rs1877.75 Crores for FY21. HESCOM shall furnish the reasons for indicating different capex figures.

COMPLIANCE:

Proposed revised capex for FY-21 is Rs.1205.51 Crores and correction made in Format-17 and revised Format- 17 is enclosed as Annexure-4 for kind consideration of the Commission.

The HESCOM shall explain the rationale behind submitting the proposal for incurring higher amounts than the amounts already approved for the current control period. The Commission has approved capital expenditure of Rs. 1200 Crores and Rs. 1025 Crores for FY20 and FY21 respectively in terms of the MYT Regulations and HESCOM has to comply with the approval as per Tariff Order 2019. Any additional amounts required shall be incurred through reappropriations with in the approved amounts.

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COMPLIANCE:

The directions of the commission in respect of capital works will be followed strictly and time to time adoption of guidelines and orders by Hon'ble Commission will be the soul motto. HESCOM as per the approval of Hon'ble Commission, the work which are absolutely essential are included in the Annual plan, during the course of MYT filing. capital plan of Rs. 1200 crores and 1025 crores FY-20 and FY-21 respectively are proposed. However it is to mentioned that there is a deviation in Annual capex due to launch of some projects by Government like DDUGIY, IDPS, and Madhari Viduyth Gram etc.,. Plan with prioritization of works and other essential parameters will also be considered including post-commissioning analysis etc., while incorporating capital works in year annual plan. However it is brought to the kind notice of Hon'ble Commission that there was a devastating flood in Karnataka especially North Karnataka region which resulted in damage of distribution infrastructure resulting in a huge loss to the company assets. Just to restore power supply HESCOM has incurred capital expenditure of Rs.200 crores. Hence for the above reasons there is a deviation in the plan already proposed by HESCOM. Rationale behind higher expenditure booked in some of the works is due to more number of applications registered in respect of Ganga Kalyan and water supply works. Anticipating number of applications to be registered in respect of Ganga Kalyan and water supply works is unpredictable and is slightly higher than the average number of applications while preparation of annual capex plan.

i. It is also to be stated here that HESCOM has filed application for APR of FY19 and ARR for FY21. Hence the question of revised capex for FY20 will not arise in these proceedings. Any excess or short spending of capex for FY20 will be suitably dealt with in the APR of FY20.

COMPLIANCE:

Noted and proposal for capex for FY20 will be submitted while filing the application for APR of FY20.

ii. HESCOM has proposed Rs.100 Crores for Gankakalyana works, for FY21, Rs. 88 Crores for creating infrastructure for Unauthorized IP Sets and Rs.61 Crores for replacement of more than 10-year-old electromechanical energy meters by static meters. HESCOM shall submit the total capex incurred during the last

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three financial years (FY17, FY18 and FY19) in respect of these works duly indicating completed works and balance no. of works. HESCOM has proposed Rs.50 Crores for enhancement of distribution transformers and Rs. 3 Crores for DTC metering. HESCOM shall submit the total capex incurred for the last three financial years (FY17, FY18 and FY19) in respect of these works and the reduction in distribution losses, percentage of DTC metering and the energy audit conducted in respect of DTCs which are metered and the results thereof, so as to justify the proposed expenses for FY21.

COMPLIANCE:

Total capital expenditure during last 3 years for FY-17, FY-18 and FY-19 in respect of creating infrastructure IP sets, Ganga Kalyan and Replacement of 10 year old electromechanical energy meters by static meters in HESCOM are as shown in the above table may kindly be considered by Hon'ble Commission .

a) Gangakalyana:

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Total Capex incurred during the last three financial years (FY17, FY18 and FY19) in respect of Ganga Kalyana Works

SL No	Financial Year	No. of GK IP sets energized	Balance at the end of FY	Expenditure incurred Rs in Crores
1	2016-17	5440	1404	77.21
2	2017-18	6228	372	88.59
3	2018-19	6289	1531	80.10

In the financial year 2018-19 total 6289 Nos. of GK IP sets have been energized in HESCOM and Expenditure incurred was Rs. 80.10 crores.

b) Creating infrastructure for Unauthorized IP Sets:

Creating infrastructure for Unauthorized IP (UNIP) Sets											
Financial year	No. of packages taken up	Capex Incurred during FY	Completed packages	No. of beneficiaries completed	Balance No. of packages						
FY-17	8	126.94	8	5050	0						
FY-18	14	108.30	9	8000	5						
FY-19	12	56.32	11	625	1						

Replacement of more than 10-year-old electromechanical energy meters by static meters;

FY	FY 17		FY 18		19	Balance	
Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financia
	Excupación de	0	0	83635 nos	00	553117	152.89
on all	5 20/0/223	0	U	83033 1108	00	33311/	crores

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d) DTC Metering;

FY	17	FY	FY 18 FY 19 Bal		FY 19 Balance		ance
Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial
₩.	15.86 Crs*	14	8.91 cr*	121	427	97	-

*The above said expenditure is towards the retention amount held and monthly maintenance bills.

HESCOM has taken up Metering of 40793 Nos of DTCs in two Phases (Phase-I & II). Metering of all the 40793 Nos of DTCs is completed. Details Metering, Communication with server and Energy Audit conducted for the month of October-2019 is as below:

	No. of DTC Meters	Balance No. of DTC	No. of DTC for which Energy Audit report is generated						
No. of DTC Metered	Communicating in M/s. AFTL DTCM Web portal	Meters to be Communicated in M/s. AFTL DTCM Web portal	Negative Loss%	0-10%	10-20%	above 20%	Total		
40793	32624	8169	2778	14184	344	9814	27120		

iii. HESCOM shall also submit physical progress as well as the financial progress (Total amount for the year), in respect of all the schemes taken up by HESCOM in the format annexed to these observations, vide Annexure-1, 2 and 3.

COMPLIANCE:

The physical progress as well as the financial progress (Total amount for the year), in respect of all the schemes taken up by HESCOM in the **Annexure-1**, 2 & 3.

iv. HESCOM shall furnish the sources of funding each category of works proposed for FY21. HESCOM, by considering its present financial position and the current liabilities as per its audited Balance Sheet, the achievement of capex during the previous years and the proposed estimated revenue loss for FY21, is required to restrict its capex requirement limited to the approved capex keeping in view, its financial capability to meet the debt service obligations.

COMPLIANCE:

Source of funding each category of works proposed for FY-21 HESCOM is enclosed with this as per Annexure-5.

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2. Sales:

A. Sales –other than IP sets:

I. Data inconsistency:

a. The energy sales indicated for FY20 at page 117, does not tally with D-2 Format data. It is seen that FY21 sales figures are reproduced for FY20 also. This shall be rectified.

COMPLIANCE:

FY 21 sales figures entered for FY 20 is now rectified and kindly requested to consider the following format:

Details of growth of Sales as per CAGR:

Tariff	FY-15	FY-19	Yn= FY-18	Yi=FY- 14	n=5	CAGR	FY-20	FY-21
			1/(n-1)	Yn/Yi	Yn/Yi^ (1/(n-1)	[(Yn/Yi^(1/(n-1))- 1]*100		
LT1 - 18/40 units	91.92	199.94	0.25	2.18	1.21	21.44	199.94	199.94
LT1 above 18/40 units	72.12	43.91	0.25	0.61	0.88	-11.67	43.91	43.91
вј кј	164.04	243.85	0.25	1.49	1.10	10.42	243.85	243.85
LT-2a (i)	852.71	976.86	0.25	1.15	1.03	3.46	1010.62	1045.55
LT-2a (ii)	390.53	467.03	0.25	1.20	1.05	4.57	488.39	510.72
LT-2(b)(i)	10.66	14.99	0.25	1.41	1.09	8.90	16.33	17.78
LT-2(b)(ii)	3.02	4.34	0.25	1.44	1.09	9.47	4.75	5.20
LT-3(i)	265.74	322.27	0.25	1.21	1.05	4.94	338.19	354.89
LT-3(ii)	105.37	142.60	0.25	1.35	1.08	7.86	153.80	165.88
LT-4(a)	5289.92	6,729.14	0.25	1.27	1.06	6.20	7146.40	7589.53
LT - 4b	17.02	16.27	0.25	0.96	0.99	-1.13	16.45	16.63
LT- 4c(i)	0.88	0.54	0.25	0.61	0.89	-11.45	0.60	0.67
LT-4c(ii)	0.19	0.18	0.25	0.94	0.98	-1.66	0.18	0.18
LT-5	315.81	328.55	0.25	1.04	1.01	0.99	331.81	335.11
LT-6	203.28	311.69	0.25	1.53	1.11	11.28	346.84	385.95
LT-6	133.13	149.79	0.25	1.13	1.03	2.99	154.27	158.89
LT-7	22.61	32.74	0.25	1.45	1.10	9.69	35.91	39.39
LT Total	7774.90	9,740.81	0.25	1.25	1.06	5.80	10288.38	10870.24
HT-1	195.96	270.96	0.25	1.38	1.08	8.44	293.83	318.62
HT-2(a)	926.07	1,160.05	0.25	1.25	1.06	5.79	1227.26	1298.35
HT - 2(b)	114.55	129.88	0.25	1.13	1.03	3.19	134.02	138.29
HT-2 (C)(i)	23.13	56.27	0.25	2.43	1.25	24.89	70.28	87.77
HT-2 (C) (ii)	24.18	21.67	0.25	0.90	0.97	-2.70	22.26	22.86
HT - 3 (a)(i)	120.65	209.40	0.25	1.74	1.15	14.78	240.35	275.88
HT - 3 (a)(ii)	11.44	123.68	0.25	10.81	1.81	81.33	142.18	163.45
HT - 3 (a)(iii)	5.15	3.75	0.25	0.73	0.92	-7.60	4.04	4.35
HT-3(b)	0.14	0.07	0.25	0.48	0.83	-16.93	0.08	0.09
HT-4	15.70	14.43	0.25	0.92	0.98	-2.09	14.73	15.04
HT-5	19.67	29.02	0.25	1.48	1.10	10.21	31.98	35.24
Mr. HT	1456.65	2,019.18	0.25	1.39	1.09	8.51	2180.99	2359.94
LT+HT	9231.54	11,759.99	0.25	1.27	1.06	6.24	12469.38	13230.1

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b. At page-113, the sales to LT4c(ii)for FY21 is indicated as 0.88 MU, whereas at page 117 it is shown as 0.18 MU. The data shall be reconciled.

COMPLIANCE:

At page-113, the sales to LT4c(ii)for FY21 is wrongly indicated as 0.88 MU instead of 0.18 MU and kindly requested to consider 0.18 MU as the sales to LT4c(ii)for FY21.

c. The total number of installations as per d-21 Format should be 5516598(LT: 5512420+HT:4178) and not 551600 numbers. This shall be rectified.

COMPLIANCE:

The total number of installations as per d-21 Format is rectified and corrected as 5516598(LT: 5512420+HT:4178) Revised D-21 Format is enclosed as Annexure-6 for kind consideration of the Commission.

II. Annual Performance Review for FY19:

a. The Commission, in its Tariff Order,2018 dated 14.05.2018, had approved total sales to various consumer categories at 10702.41MU as against the HESCOM's proposal of 11187.02 MU, excluding sales to HRECS & SEZ. The actual sales of HESCOM as per the current APR filling, is 11760.01MU, indicating an increase in sales to the extent of 1057.60 MU as compared with the approved sales. The increase in sales is 257.35 MU in HT-categories and 800.25 MU in sales to LT-categories. It is noted that, as against approved sales [excluding HRECS sales and supply to SEZ] of 4750.18 MU to categories other than BJ/KJ and IP sets, the actual sales achieved by HESCOM is 4830.93 MU, resulting in the increase in sales to these categories by 80.75 MU. Further, HESCOM has sold 6929.08 MU to BJ/KJ and IP category as against approved sales of 5952.23 MU resulting in increased sales to these categories by 976.85 MU.

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Sales in MU

Category	Approved	Actuals	Difference (Actuals- Approved)
LT-2a*	1601.86	1487.80	-114.06
LT-2b	21.42	19.33	-2.09
LT-3	481.88	464.86	-17.02
LT-4b	16.55	16.27	-0.28
LT-4C	1.24	0.72	-0.52
LT-5	327.49	328.55	1.06
LT-6	343.07	311.69	-31.38
LT-6	161.76	149.79	-11.97
LT-7	33.07	32.74	-0.33
HT-1	237.40	270.96	33.56
HT-2a	892.61	1160.05	267.44
HT-2b	130.02	129.88	-0.14
HT-2c	97.62	77.94	-19.68
HT-3a & b	350.35	336.90	-13.45
HT-4	15.39	14.43	-0.96
HT-5	38.44	29.02	-9.42
Sub total	4750.18	4830.93	80.75
BJ/KJ	189.62	199.94	10.32
IP .	5762.61	6729.14	966.53
Sub total	5952.23	6929.08	976.85
Grand total**	10702.41	11760.01	1057.60

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

**Excludes sale to HRECS and SEZ.

From the above table it is noted that the major categories contributing to the increase in sales as compared with the estimate are HT-2a and IP sets. Further, the reduction in sales is mainly in LT-2a category.

HESCOM has stated that the variance in sales cannot be explained, in view of diversified geographical nature of area under HESCOM.

The Commission notes that, the increase in sales to HT-2a category, can be partially attributed to the increase in number of installations. Also, the sales to this category could have increased due to the special incentive scheme. Hence, HESCOM shall analyse the impact of special incentive scheme and the corresponding increase in HT-2a sales shall be appropriately quantified.

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Corporate Office, Hescom Navanagar, Hubballi - 580 025

COMPLIANCE:

The details of HT-2 (a) Tariff:

Year	No.of Installations	Sales in MU
2017-18	1586	1005.39
2018-19	1760	1160.05
Increase for FY-19	174	154.66

174 No. of installations are added for 2018-19 and 154.66 MU of sales has been increased.

Year	Energy procured by HT Consumers under open access / wheeling
2017-18	424.67
2018-19	226.96
Decrease for FY-19	197.71

Out of total No. of 35 Open access consumers, 7 Nos. of consumers have been shifted to Special incentive Scheme and thereby open access consumption is reduced and HT 2(a) sales has been increased. Total No. of consumers opted for Special incentive Scheme are 22 including consumers shifted from open access to Special incentive Scheme and HT 2(a) sales has been increased partially due to increase in number of installations and partially due to Special incentive Scheme.

Further, in the case of LT-2a, the decrease may be due to reduced specific consumption and use of energy efficient appliances like LED bulbs, EE fans etc. The Commission, in the previous Tariff Order had directed HESCOM to analyse the impact of DSM programs quantifying the energy and cost savings due to such programmes. However, HESCOM has not furnished any details to explain the reduction in sales to LT-2a category. HESCOM analyse the same and furnish the reasons for reduction in sales to LT-2a category.

COMPLIANCE:

Reduction in sales to LT-2a category is due to use of energy efficient appliances like LED bulbs, tube lights & EE fans etc and the impact of DSM programs quantifying the energy and cost savings due to such programmes is as stated below:

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Energy Saved by LED Bulbs for FY-19 (April 2018 to March 2019):

SI No	Months	Total No of Bulbs sold (a)	Bulbs Sold (b)=(a)+ previous month sale	No of Days (c)	82% of total days (d)=82% of (c)	Power saving/ Bulb in Watts (e)	Huors / Day (f)	Total Power Savings in kW (g)=(b*e)/ 1000	Energy Saved in kWh (h) = g*d*f	Energy Saved in million Units (I)=h/1000000
1	Apr-18	46,428	18,07,280	30	25	23.4	3.5	42290	3641199	3.64
2	May-18	34,935	18,42,215	31	25	23.4	3.5	43108	3835304	3.84
3	Jun-18	39,804	18,82,019	30	25	23.4	3.5	44039	3791779	3.79
4	Jul-18	34,398	19,16,417	31	25	23.4	3.5	44844	3989785	3.99
5	Aug-18	32,112	19,48,529	31	25	23.4	3.5	45596	4056639	4.06
6	Sep-18	29,777	19,78,306	30	25	23.4	3.5	46292	3985772	3.99
7	Oct-18	26,626	20,04,932	31	25	23.4	3.5	46915	4174064	4.17
8	Nov-18	49,066	20,53,998	30	25	23.4	3.5	48064	4205561	4.21
9	Dec-18	30,725	20,84,723	30	25	23.4	3.5	48783	4200175	4.20
10	Jan-19	35,099	21,19,822	31	25	23.4	3.5	49604	4413253	4.41
11	Feb-19	2,677	21,22,499	28	23	23.4	3.5	49666	3991198	3.99
12	Mar-19	21,482	21,43,981	31	25	23.4	3.5	50169	4463550	4.46
	Total	3,83,129	22, 3,502							48.75 MU

LED Tubelight sales and	Energy cavings	dotails fo	or HESCOM
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		LED	Tubelight	sales alle	Lileigy sav	ings detail				
SI N	Months	Total No of Tube lights sold (a)	Bulbs Sold (b)=(a)+pre vious month sale	Number of Days (c)	82% of total days (d)=82% of c	Power saving/Tu be in Watts (e)	Hours /Day (f)	Total Power savings in kW (g)=(b*e)/100 0	Energy saved in kWh (h)=g*d*f	Energy saved i mn Units (I)=h/1000000
1	Apr-18	3,313	23,496	30	25	26	3.5	611	53453	0.053
2	May-18	1,315	24,811	31	25	26	3.5	645	56445	0.056
3	Jun-18	1,438	26,249	30	25	26	3.5	682	59716	0.060
4	Jul-18	890	27,139	31	25	26	3.5	706	61741	0.062
5	Aug-18	467	27,606	31	25	26	3.5	718	62804	0.063
6	Sep-18	645	28,251	30	25	26	3.5	735	64271	0.064
7	Oct-18	7.77.345-577	28,399	31	25	26	3.5	738	64608	0.065
8	Nov-18	148	28,406	30	25	26	3.5	739	64624	0.065
9	Dec-18	150	28,556	31	25	26	3.5	742	64965	0.065
1 0	Jan-19	0	28,556	31	25	26	3.5	742	64,965	0.065
1	Feb-19	382	28,938	28	25	26	3.5	752	65,834	0.066
1 2	Mar-19	1,004	29,942	31	25	26	3.5	778	68,118	0.068 0.752 MU
17.4	Total	9,759					1			0.752 1010

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RA Section
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Navanagar, Hubballi - 580 025

SI No	Months	Total No of FANs sold (a)	FANs Sold (b)=(a)+previ ous month sale	Num ber of Days (c)	82% of total days (d)=82% of d	Power saving/Tube in Watts (e)	Hours /Day (f)	Total Power savings in kW (g)=(b*e)/100 0	Energy saved in kWh (h)=g*d*f	Energy save in mn Units (I)=h/10000
1	Apr-18	606	2,384	30	25	20	6	48	7038	0.007
2	May-18	740	3,124	31	25	20	6	62	9529	0.010
3	Jun-18	367	3,491	30	25	20	6	70	10305	0.010
4	Jul-18	167	3,658	31	25	20	6	73	11158	0.011
5	Aug-18	100	3,758	31	25	20	6	75	11274	0.011
6	Sep-18	106	3,864	30	25	20	6	77	11592	0.012
7	Oct-18	457	4,321	31	25	20	6	86	12963	0.013
8	Nov-18	20	4,341	30	25	20	6	87	13023	0.013
9	Dec-18	256	4,597	31	25	20	6	91.94	13791	0.013791
10	Jan-19	326	4,923	31	25	20	6	98.46	14769	0.014769
11	Feb-19	178	5,101	28	25	20	6	102.02	15303	0.015303
12	Mar-19	174	5,275	31	25	20	6	105.5	15825	0.015825
	Total	3,497								0.147 MU

c. Further to validate the sales, HESCOM shall furnish the following information: 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 2017-18 to 2018-19 in the following format:

COMPLIANCE:

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
2017-18	1005.39	424.67	1430.06	29.70
2018-19	1160.05	226.96	1397.01	16.25

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
2017-18	121.80	0	121.80	0
2018-19	129.88	0	129.88	0

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Executive Engineer (EI)

RA Section

Corporate Office, Heacom

Navanagar, Hubballi - 580 025

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
2017-18	74.14	0	74.14	0
2018-19	77.94	0	77.94	0

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
2017-18	14.59	0	14.59	0
2018-19	14.43	0	14.43	0

III. Category-wise sales for FY21:

a) The HESCOM, in their filing, have stated that the number of installations for FY20 & FY21, is estimated considering the growth in installations for the period from FY15 to FY19, except in the case of BJ/KJ and IP set installations. For BJ/KJ the number of installations has been retained at FY19 level.

Also, the Commission has noted that for energy sales estimate, CAGR for the period FY15 to FY19 is considered, except for BJ/KJ, LT-4, HT 2c (ii), HT3a(iii), HT-3b & HT-4 categories. Except BJ/KJ, the other categories have negative CAGR. For BJ/KJ, HESCOM has retained the sales at FY19 level.

- b) The observations of the Commission on sales forecast for FY20 are as follows:
 - In case of LT-4(b) & 4(c), HESCOM may consider estimating the sales based on specific consumption of FY19, as sales CAGR is negative.

COMPLIANCE:

As LT-4(b) & 4(c) are metered installations, projection made considering 5 years CAGR, hence, kindly requested to consider the existing growth rate proposed by HESCOM.

Executive Engineer (EI)
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2. The table indicating the growth rates for the number of installations is furnished as below:

Category	Percentage Growth Rates					
	2013-14 to 2018-19 CAGR	2015-16 to 2018-19 CAGR	FY19 growth over FY18	Growth rate proposed by HESCOM for FY21		
LT-2a	4.62%	4.90%	5.71%	4.71%		
LT-2b	7.87%	7.39%	5.32%	7.86%		
LT-3	5.29%	5.25%	4.71%	5.28%		
LT-5	5.29%	5.16%	3.88%	5.22%		
LT-6 WS	10.29%	11.65%	7.94%	10.06%		
LT-6 SL	4.56%	5.65%	4.42%	4.92%		
HT-1	12.50%	14.11%	14.47%	12.90%		
HT-2 (a)	9.80%	11.00%	10.97%	10.35%		
HT-2 (b)	6.55%	8.98%	8.82%	7.81%		
HT-2 (c)	14.24%	9.88%	8.70%	11.05%		
HT-3(a)&	10.60%	9.46%	7.34%	10.71%		
HT-4	-3.58%	-1.09%	-6.25%	0.00%		

It is noted that, the growth rate considered for LT-6-Water Supply installations is lower as compared with the normal growth rates. Therefore, HESCOM may consider revising the data for this category.

COMPLIANCE:

Projection made is made considering 5 years CAGR, nature of the installation and trend, hence kindly requested to consider the existing growth rate proposed by HESCOM.

3. the growth rates for the energy sales are furnished in the following Table:

	Category	Percentage Growth Rates				
		2013-14 to 2018-19 CAGR	2015-16 to 2018-19 CAGR	FY19 growth over FY18	Growth rate proposed by HESCOM for FY21	
	LT-2a	4.57%	2.38%	2.24%	3.82%	
	LT-2b	10.94%	9.81%	4.49%	9.01%	
	LT-3	6.47%	3.96%	3.83%	5.85%	
	LT-5	1.78%	1.59%	2.53%	0.99%	
	LT-6 WS	10.46%	12.97%	12.45%	11.28%	
	LT-6 SL	4.52%	5.15%	0.27%	2.99%	
	HT-1	7.93%	8.76%	15.79%	8.44%	
(ia) Homend occupati	HT-2 (a)	5.47%	7.63%	15.38%	5.79%	
Her security as	HT-2 (b)	4.07%	2.80%	6.63%	3.19%	
A Section		19.90%	10.37%	5.13%	19.56%	
Tirrate Oslice, Newcom	LIT 0/-10 //-1	18.01%	27.15%	31.67%	14.77%	
nagar, Hobballi - 189 gp	HT-4	-2.48%	-0.46%	-1.10%	2.10%	

Executive Engineer (EI)

RA Section Corporate Office, Heacom Navanagar, Hubballi - 580 025 It is noted that, the growth rate considered for LT-2b, LT-5, LT-6 SL and HT-3 is lower and for HT-4 it is higher, considering the CAGR. HESCOM may consider revising the data for these categories.

COMPLIANCE:

Projection is made considering 5 years CAGR, nature of the installation and trend, hence kindly requested to consider the existing growth rate proposed by HESCOM.

4. For HT2(a) category, the sales estimate based on the analysis of open access impact shall be considered. HESCOM should have computed the growth rates considering the total energy sold to this category including OA/wheeling and should have estimated the sales considering the ratio of energy sold by HESCOM in FY19 to the total sales of FY19 including OA/wheeling sales. HESCOM may compute HT-2a sales on the above method and furnish the data.

COMPLIANCE:

In view of the inconsistency in the Open Access and wheeling consumption, HESCOM is unable to arrive at exact growth in the consumption under HT-2 (a) based on ratio basis as directed by the Hon'ble Commission. Hence, Commission is kindly requested to consider the existing growth rate proposed by HESCOM for control period.

Executive Engineer (EI)

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

COMPLIANCE:

- 1. Category wise No. of installations and sales for FY 17-18, FY 18-19 and FY 19-20 up to November 2019:
 - a. No. of Installations:

	2017-18	Actuals	2018-19	Actuals	201	9-20
Category	As on 30th Nov 2017	As on 31st March 2018	As on 30th Nov 2018	As on 31st March 2019	As on 30th Nov 2019	As on 31st March 2020 (Estimate)
LT-2a	2491720	2537347	2626683	2682113	2801246	2808395
LT-2b	6395	6653	6816	7007	6758	7556
LT-3	349598	355003	364779	371707	385155	391277
LT-4 (b)	871	856	863	842	842	849
LT-4 (C)	401	356	368	394	412	450
LT-5	111361	113582	116267	117989	120865	124150
LT-6	41420	42618	44305	46004	49181	50632
LT-6	22515	22823	23269	23831	24915	25004
LT-7	64719	66658	75665	85289	112491	106006
HT-1	302	318	351	364	385	411
HT-2 (a)	1575	1586	1713	1760	1892	1942
HT-2 (b)	602	578	608	629	676	679
HT2C	296	299	315	325	346	362
HT-3(a)& (b)	249	259	273	278	304	308
HT-4	31	32	32	30	32	30
HT-5	48	49	50	59	66	62
Sub Total (Other than BJ/KJ and IP)	3092103	3149017	3262357	3338621	3505566	3518113
BJ/KJ<=40units/month	715449	720063	705078	718179	712212	718179
BJ/kJ > 40	54899	39871	54904	42349	52080	42349
IP sets-LT-4a	686358	696647	721291	930551	951981	987531
Sub Total (BJ/KJ and IP)	1456706	1456581	1481273	1691079	1716273	1748059
Grand Total	4548809	4605598	4743630	5029700	5221839	5266172

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Navanagar, Hubballi - 580 025

b. Energy Sales

	2017-18 Actuals		2018-19 Actuals		2019-20	
Category	1st April 2017 to 30th Nov 2017 (cumulative)	1st Dec 2017 to 31st March 2018 (cumulative)	1st April 2018 to 30th Nov 2018 (cumulative)	1st Dec 2018 to 31st March 2019 (cumulative)	1st April 2019 to 30th Nov 2019 (cumulative actuals)	1st Dec 2019 to 31st March 2020 (cumulative Estimate)
LT-2a	977.01	435.31	999.57	444.31	1046.47	452.54
LT-2b	12.22	6.28	12.84	6.49	14.00	7.08
LT-3	303.8	143.93	311.72	153.14	332.18	159.81
LT-4 (b)	10.9	6.53	9.64	6.63	10.24	6.21
LT-4 (c)	0.46	0.38	0.42	0.3	0.41	0.37
LT-5	206.92	113.51	217.89	110.66	210.31	121.50
LT-6	183.46	93.73	200.51	111.18	221.90	124.94
LT-6	96.7	52.68	97.15	52.64	99.16	55.11
LT-7	17.77	10.48	22.16	10.58	22.46	13.45
HT-1	150.18	83.83	173.68	97.28	176.83	117.00
HT-2 (a)	653.34	352.05	780.14	379.91	759.68	467.58
HT-2 (b)	80.26	41.54	85.3	44.58	87.98	46.04
HT2C	49.41	24.73	54.06	23.89	55.70	36.83
HT-3(a)& (b)	160.42	95.45	245.44	91.46	209.62	177.03
HT-4	9.98	4.61	9.92	4.52	10.49	4.24
HT-5	15.21	6.6	23.36	5.66	19.95	12.03
Sub Total (Other than BJ/KJ and IP sets)	2928.05	1471.63	3243.79	1543.21	3277.38	1801.76
BJ/KJ<=40units/month	124.17	77.03	135.08	64.86	131.38	68.56
BJ/kJ > 40 units/month.	35.79	8.49	30.31	13.6	36.06	7.85
IP sets LT 4a	3755.71	2298.41	4359.97	2369.18	3901.62	3244.78
Sub Total (BJ/KJ and IP)	3915.66	2383.94	4525.35	2447.64	4069.06	3321.19
Grand Total	6843.71	3855.57	7769.14	3990.84	7346.44	5122.95

IV. Sales to HRECS:

HESCOM has indicated the energy sold to HRECS for FY19 as 346.63 MU at page 71 of the filing. Though the HRECS in its filing has indicated the same as 346.63 MU, it has stated that the above includes energy requirement of AEQUS also. For FY19 to FY-21, HRECS has considered the following quantum of purchase from HESCOM (including AEQUS sales):

	FY19	FY20	FY21
HRECS Estimate-MU	346.63	361.57	381.94

Executive Engineer (EI)
RA Section

Corporate Office, Hescom Navanagar, Hubballi - 580 025 HESCOM shall confirm, whether the above quantum of sales to HRECS is considered, while arriving at the overall power purchase requirement for HESCOM.

COMPLIANCE:

For FY19 to FY-21, quantum of sales to HRECS is considered while arriving at the overall power purchase requirement for HESCOM. HRECS had requested the energy requirement for FY-20 and FY-21 vide e-mail dtd. 02.11.2019 as stated below, same has been considered while arriving at the overall power purchase requirement for HESCOM as noted in the A1 Format. Email copy received from HRECS is enclosed as Annexure-7.

Praticulars	FY20	FY21
HRECS Hukkeri (Including transmission loss) in MUs	347.77	364.49
HRECS Hukkeri (Including transmission loss) in MUs	25.61	29.80
Total	373.38	394.29

B. Sales to IP sets

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1. Sales for FY19:

a. The Commission, in the APR for FY18, vide its tariff order 2019 has approved the total sales to IP sets at 6,054.12 MU with a specific consumption of 8,905.36 units per IP set per annum for FY18. HESCOM, in its current filing, has indicated the sales to IP sets as 6,729.14 MU for FY19 with a specific consumption of 8,270.83 units per IP set per annum. The Commission notes that there is a decrease in the specific consumption by 634.53 units per IP set per annum for FY19 as compared to FY18 actuals due to huge increase in number of consumers by 2,33,904 (9,30,551 – 6,96,647). The reasons for this abnormal increase in the no. of IP sets during FY19 over FY18 needs to be verified and explained. The Commission is of the view that there cannot be an addition of 2.34 lakhs installations (increase by 34%) in a year. There appears to be an error committed in arriving at the total no. of installations for FY19, which need to be rectified immediately.

Executive Engineer (EI)
RA Section

RA Section Corporate Office, Heacom Navanagar, Hubballi - 580 025

COMPLIANCE:

As per HESCOM B.O.D resolution, HESCOM took up the drive to regularise unauthorised IP sets which were already connected to the Distribution network from October 2018 onwards. Due to the above regularisation drive an addition of about 2 lakh installations has been added during FY-2019, resulting in increase in 2.34 lakh installations compared to FY 18. Hence the specific consumption has been decreased by 634.53 units per IP set per annum for FY -19 as compared to FY 18.

b. The details of sales to IP sets for FY19 as approved by the Commission in its tariff order 2018 and the actual sales as furnished by HESCOM, in its Tariff Filing for FY21, are as follows;

Particulars	As approved by the Commission in ARR for FY19	As submitted by HESCOM for APR of FY19
Number of installations	7,15,686	9,30,551
Mid-year number of installations	6,99,007	8,13,599
Specific consumption in units / installation / annum	8,244	8,270.83
Sales in MU	5,762.61	6,729.14

COMPLIANCE:

Due to regularisation of unauthorised IP sets there is increase in No of IP sets and sales (6729.14-5762.61) by 966.53 MU for FY 19 as compared to Approved figure for FY 19.

c. HESCOM has to furnish the reasons for, abnormal increase in number of consumers by 2,14,865 over and above the approved no. of IP sets for FY19, increase in specific consumption by 26.83 units / installation / annum and the increase in sales by 966.53 MU as compared with the approved figures.

COMPLIANCE:

As per HESCOM B.O.D resolution, HESCOM took up the drive to regularise unauthorised IP sets which were already connected to the Distribution network from October 2018 onwards. Due to the above regularisation drive an addition of 2.34 lakh installations have been added during FY-2019, resulting in increase in sales by 966.53 MU as compared with approved figures.

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Executive Engineer (EI)
RA Section

Corporate Office, Hescom Navanagar, Hubballi - 580 025 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 6,630.86 MU, whereas in the accounts and tariff application it is 6,729.14 MU, with a difference of 98.28 MU. HESCOM shall furnish the reasons for this variance.

COMPLIANCE:

HESCOM in its Tariff filling has submitted total sales to IP sets as 6729.14 MU. However 6630.80 MU total sales to IP sets submitted by HESCOM as per prescribed format is only for unmetered category of Exclusive IP set feeders. Metered consumption of IP sets in Uttara Kannada region were excluded. HESCOM will resubmit the total IP set sales including metered category in the prescribed format.

e. Distribution losses considered for assessment of sales to IP sets varies from 0.5% for on feeder to 79.32% in the month of April 2018 (which may include the consumption of energy by installations other than IP sets). The distribution losses considered in each month for FY19 are also different. HESCOM shall furnish the rationale for considering such inconsistent distribution losses for assessment of sales to IP sets for FY19 by clearly indicating the distribution losses in a separate column and the consumption of energy by installations other than IP sets, in a separate column.

COMPLIANCE:

It is stated that Distribution losses considered for assessment of sales to IP sets varies from 0.5% to 79.32%. This is due to inclusion of metered sales to other than IP sets. For variation in month wise Distribution loss will be analysed and corrective measures will be taken. Further as directed by Hon'ble Commission split up of metered sales and Distribution loss in MU for all feeders will be segregated and resubmitted for kind consideration.

f. HESCOM shall furnish the reasons for huge variation in number of IP set installations, with reference to the DCB, month on month observed during FY19.

COMPLIANCE:

Metered IP sets were left out in the format submitted earlier. Hence the same will be rectified and re-submitted for kind consideration.

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Corporate Office, Heacom Navanagar, Hubballi - 580 025 g. HESCOM shall also furnish the Energy Audit details of all the feeders (urban and rural) coming in its jurisdiction.

COMPLIANCE:

Energy Audit details of all feeders (Urban and Rural) will be submitted by E - Mail for kind consideration.

h. HESCOM has considered 1669 number of segregated agricultural feeders for assessment of sales to IP set installations in April 2018. Whereas, the number of segregated agricultural feeders considered for assessment of sales to IP set installations in March 2019 is 1799 feeders. HESCOM shall furnish the reasons for not considering all the segregated IP feeders throughout the year.

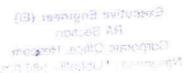
COMPLIANCE:

Feeder segregation under NJY Phase 3 was in progress in FY-19 and some of the feeder segregation were carried out departmentally also. Due to over load of IP set feeders in some areas, IP feeders has been bifurcated. Hence there is an increase in Exclusive IP feeders. As and when feeder segregation work was completed, the feeders were included in the system. Hence all the segregated IP feeders were not considered throughout the year.

- HESCOM has not submitted the details of GPS survey of IP set installations taken up in its jurisdiction. The same shall be furnished.
- j. While furnishing the details of GPS survey, HESCOM shall clarify as to whether it has considered the deleted / defunct / not in use IP sets, for assessing the sales to IP set installation.
- k. HESCOM has to furnish, whether there is difference in number of consumers in the data as per GPS survey and the IP set data as per the DCB figures along with the action taken to reconcile the details of number of consumers with DCB figures and the action taken to regularize the unauthorized IP installations, if any.

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COMPLIANCE for I, j, k:

1.	Number of Live IP Sets as per Oct-2019 DCB are	9,35,656 No's
2.	Total No of IP Sets Enumerated and mapped in GIS as on 24- 12-2019 are	8,99,287 No's
3.	IP Sets Enumerated as Authorized are	8,14,131 No's
	a)Authorized IP Sets in use	7,95,370 No's
	b) Authorized IP Not in Use/dried up/ abandoned	18,761 No's
4.	IP Sets Enumerated as Unauthorized are	85,156 No's
	a)Unauthorized IP Sets in use	83,980 No's
	b) Unauthorized IP Not in Use/dried up/ abandoned	1,176 No's
5.	Balance No of IP Sets to be Enumerated as authorized	1,21,525 No's

j) As on 24-12-2019 during enumeration 18,761 No's of IP Sets are found as not in use/dried up/abandoned/defunct.

But many IP Sets are temporarily not in use i.e., during enumeration, these IP Sets are not in use but now these IP Sets are under working condition. To identify exact no. of not in use IP Sets, resurvey is under process in HESCOM jurisdiction once the resurvey is completed the exact no of IP Sets which are not in use will be identified and report will be submitted shortly.

k) 85,156 No's of IP Sets are found as unauthorized during enumeration and to regularize Unauthorized IP sets, A Circular has been issued for regularization of Unauthorized IP Sets on 31-10-2018 vide letter No: HESCOM/SEE(PMC)/EE-P3/Gok-IP-2014/Regulazation /2018-19/Cys-2921/Dtd:31-10-2018. In which all Unauthorized IP Sets are regularized by assigning RR No's, duly collecting Registration fees of Rs.50/-.

As per the Circular around 2,12,452 No's of Unauthorized IP Sets are regularized. In which,

- Out of 2,12,452 No's of IP Sets 2,12,104 No's of IP Sets are regularized by collecting Registration fee of Rs.50/-.
- 2) 348 No's of IP Sets infrastructure charges of Rs.10,000/- is deposited by the beneficiaries.

Out of these 85,156 No's of Unauthorized IP Sets many of them might have been regularized by collecting registration fee of Rs.50/- are already enumerated as unauthorized and these IP Sets are mapped in GIS.

For this Managing Director, HESCOM directed all the Divisional Officials to Reclassify
the data (i.e. Unauthorized IP to Authorized IP) and update it in GIS application.

For remaining balance No of IP Sets which are yet to be enumerated, directions are

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Corporate Office, Hescom Navanagar, Hubballi - 580 025 I. As per the actual specific consumption for FY19 i.e., 8,270.83 units per IP per annum, the average consumption per IP per month should have been 689.23. 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 4672.20 in respect of KanchiNegalur feeder in Hanagal Subdivision in the month of April 2018. Reasons for such abnormal consumptions recorded throughout, shall be explained.

COMPLIANCE:

Since HESCOM is IP dominant area, Specific Consumption month on worties due to the agricultural activities, crop pattern, ground water availability, river bed flow. Also at times when generation due to renewable like wind and solar are high, as per SLDC instructions in order to maintain frequency and Grid stability in some occasions power supply has been extended beyond 7 hours, which has resulted in variation in specific consumption month wise and also the total consumption in the category. However there is not much variation in specific consumption as approved by Hon'ble Commission (8244 MU) in ARR for FY 19 . Further Hon'ble Commission has stated regarding huge variation in average consumption per IP per month in respect of Kanchi Neglur feeder. During Apr-18 to Mar-19 period, NJY phase –III work were carried out in Hangal Sub division. Due to this mapping of IP sets to Kanchi Neglur feeder were not done . Hence huge variations in average consumption per IP per month were observed in that particular feeder. The same has been corrected and listed as below .

	Average consumption per IP per Month in Kanchi Neglur Feeder in units										
Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
1121.51	1199.09	679.47	332.85	418.03	451.12	761.73	701.66	824.30	695.48	380.95	890.24

m. Large degree of inconsistency in the feeder-wise, month-wise data is observed. HESCOM has to furnish consistent data in excel sheets in respect of assessment of sales to IP sets for FY19.

COMPLIANCE:

As directed by Hon'ble Commission inconsistency in feeder wise, month wise data in Excel sheet in respect of assessment of sales to IP sets for FY 19 will be verified and re-submitted.

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n. Division-wise actual number of hours of supply provided to IP sets vis-à-vis the Government of Karnataka Orders for FY19 and up to September 2019 shall be furnished to the Commission.

Based on the above observations, HESCOM shall submit the data towards assessment of sales to IP sets for FY19, duly furnishing clarity on the data. In the absence of a consistent data, the Commission will not consider the data in its present form and the Commission would take necessary action as may be deemed appropriate, in the circumstances.

COMPLIANCE:

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Hours of power supply extended to IP sets as per GOK order is enclosed for your kind consideration.

			Three	phase supply	duration	
SI No	Circle	Division	As per GoK	Actual for FY-19	Actual for FY-20 up to Sep-19	Remarks
1	Hubballi	Hubballi Urban		No EIP feede	ers	
2		Hubballi Rural	07:00:00	07:00:00	07:00:00	
3		Dharwad Urban	07:00:00	07:00:00	07:00:00	
4		Dharwad Rural	07:00:00	07:00:00	07:00:00	
5		Gadag	07:00:00	07:00:00	07:00:00	
6		Ron	07:00:00	07:00:00	07:00:00	
7	Haveri	Haveri	07:00:00	07:00:00	07:00:00	
8		Ranebennur	07:00:00	07:00:00	07:00:00	
9	Sirsi	Sirsi	24:00:00	24:00:00	24:00:00	Due to generating stations like Kadra, Kodsalli, Kaiga, Nagjari, Supa in
10		Dandeli	24:00:00	24:00:00	24:00:00	Uttarkannada District and due to forest area, for security reason
11		Karwar	24:00:00	24:00:00	24:00:00	continuous power supply is being arranged in these region. Also, No. of IP sets and IP set consumption in these
12		Honnavar	24:00:00	24:00:00	24:00:00	regions are less and that too during December to March months only
13	Belagavi	Belagavi Urban		No EIP feede	ers	
14		Belagavi Rural	07:00:00	07:00:00	07:00:00	
15		Ghataprabha	07:00:00	07:00:00	07:00:00	
16		Bailhongal	07:00:00	07:00:00	07:00:00	
17		Ramdurga	07:00:00	07:00:00	07:00:00	(-2
18	Chikkodi	Chikkodi	07:00:00	07:00:00	07:00:00	
19		Raibag	07:00:00	07:00:00	07:00:00	
20		Athani	07:00:00	07:00:00	07:00:00	
21	Vijayapur	Vijayapur	07:00:00	07:00:00	07:00:00	
22		Indi	07:00:00	07:00:00	07:00:00	
23		B Bagewadi	07:00:00	07:00:00	07:00:00	
24	Bagalkot	Bagalkot	07:00:00	07:00:00	07:00:00	
25		Jamakhandi	07:00:00	07:00:00	07:00:00	
26	(33)	Mudhol	07:00:00	07:00:00	07:00:00	

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Projected sales to IP Sets for the FY21:

i. For projecting the sales to IP sets for FY21, HESCOM has not considered the actual sales data from April to September, 2019. Instead, HESCOM has considered the CAGR based increase and has projected the number of installations for rest of FY20 and for FY21.

COMPLIANCE:

Projection made is made considering 5 years CAGR, nature of the installation and trend, hence kindly requested to consider the existing growth rate proposed by HESCOM.

- ii. The reasons for difference in number of installations approved by the Commission for FY21, in Tariff Order 2019 and the projections considered in Tariff Filing by HESCOM are not substantiated with proper reasons.
- iii. As already pointed out, HESCOM, in its tariff application for FY21 has not furnished total IP consumption for the period April to September 2019 and also has not submitted the month-wise break-up in the prescribed formats. Later, HESCOM has submitted the details by E-mail on 10.12.2019. In this regard the details submitted through email need to be re-examined in view of the Commission's above observations on the abnormal increase in the number of IP set installations and sales. In the absence of clear data, the Commission will not accept the enhanced consumption for FY21.

COMPLIANCE:

The month wise break up of total IP set consumption for the period April-18 to IP consumption for the period April-19 to Sep-19 in the prescribed formats will be resubmitted by E-mail after due verification and re-examination as directed by Hon'ble Commission . It is to note that abnormal increase in no of IP set installations is due to regularisation drive that has been conducted in HESCOM which is already brought to the kind notice of Hon'ble Commission.

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3. Power Purchase:

1. Power Purchases:

a) APR FY19:

1. As per Format D-1 HESCOM has furnished the details of power purchases from different sources. In this regard HESCOM shall clarify as to whether share of power purchase for FY19, is as per the Orders of the GoK vide No. EN 32 PSR 2018, Bangalore, dated:24.04.2018, (wherein ESCOM-wise allocation of power has been made). If not, the source-wise percentage of actual power purchase made during FY19 shall be furnished.

COMPLIANCE:

- HESCOM has considered allocation as per Order of the GOK, Order No EN PSR 2018, Bangalore dated 24.04.2018, enclosed as per (Annexure -8).
- 2. HESCOM, in its filing has not furnished any write up or explanation for the energy considered for FY19 as per D1 Format.

COMPLIANCE:

- 3. The increase in power purchase cost for major sources are briefed as follows.
 - a) For RPCL (Raichur Power Corporation Ltd), KERC has approved energy of 298.78MU with Power Purchase cost Rs.69.92Cr, whereas the actual energy Considered by HESCOM is 128.20 MU with Power Purchase Cost Rs.258.95 Cr. Since, there is no generation from RPCL (YTPS-unit) only the capacity charges are added and hence there is increase in Power purchase cost of Rs.189.03Cr.
 - b) For CGS units, KERC has approved Power Purchase Cost of Rs.1407.44Cr, but the actual Power Purchase Cost is 1730.17Crs there is increase of Rs.322.73Cr (NTPC Kudagi Unit added).
 - c) In case of NCE project, KERC has approved energy of 1820.03MU with Power Purchase Cost Rs.782.97 Crs, whereas the actual energy is 4109.83 MU with Power Purchase Cost Rs.1801.83Crs. Hence there is increase in energy of 2289.80MU with Power Purchase Cost Rs.1018.86Crs.
- d) In respect of Co-gen Medium Term (5 Year) KERC has approved 186.92 MU with Power Purchase Cost Rs.91.14Crs, whereas actual energy is 337.57 MU with Power Purchase Cost Rs.163.60. Hence there is increase in energy to the extent of 148.65MU with increase in Power Purchase Cost of Rs.72.46Crs.
 - e) In respect of NTPS NSM -2 (solar), KERC has approved energy of 520.53MU with Power Purchase Cost of Rs.172.75Cr, whereas actual energy is 649.43Mu

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with Power Purchase Cost of Rs.258.29Crs, Hence there is increase in energy to the extent of 128.90MU with increase in Power Purchase Cost of Rs.85.54Crs.

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- f) For PGCIL Transmission charges, KERC has approved Power Purchase Cost of Rs.292.22Crs, whereas actual Power Purchase Cost is 384.83Crs there is increase of Rs.92.61crs, addition due to CGS drawl through I-S Corridor (NTPC-Kudagi).
- g) Further "Banked energy" under wheeling & Banking and infirm energy to extent of 185.02MU with Power Purchase Cost 57.56Crs in respect of NCE project are also considered which results in increase in energy & Power Purchase Cost. Comparison of power purchase cost as per Actual and as per KERC approved enclosed. (Annexure-9)

During FY-19, ten numbers of PPAs executed and hence there is addition of 250 MW capacity in NCE project due to which Power purchase cost increased (Annexure 10).

4. A separate statement showing the variable cost (for FY19), in the ascending order for the energy scheduled from different sources of power, shall be furnished. Any deviation from the merit order scheduling may be explained.

COMPLIANCE:

Statement showing variable cost in the ascending Order statement is enclosed (Annexure -11).

2. HESCOM in D-1 Format, has indicated the actual capacity charges of Rs. 92.63 Crores paid to BTPS unit-3 and Rs.219 Crores paid to YTPS unit-1, whereas the Commission had not approved any capacity charges for these stations in the Tariff Order for FY19. The Commission notes that a small quantum of energy of 57.97MU from BTPS unit-3 and 128.19MU from YTPS was supplied. The month-wise capacity utilization and the Computation of capacity charges for BTPS unit-3 and YTPS unit-1 shall be furnished along with necessary documents. Computation sheet for payment of capacity charges to BTPS unit-1, 2, UPCL and Kudagi shall be furnished.

COMPLIANCE:

As per Tariff order dated 30.03.2016 (APR for FY-17-19), KERC has approved Power Purchased Cost Rs.372.841 for BTPS-3, which includes capacity charges Rs.88.309 Crs. As per PPA, the tariff includes Energy Chagres capacity charges and other applicable

charges and the bills are admitted subject to adjustment till the finalization of Tariff.

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Similarly in respect of YTPS, KERC has approved Power Purchase Cost of Rs.117.303 Crs which includes capacity charges of Rs.38.805 Crs.

As per PPA, the tariff includes energy charges, capacity charges and other applicable charges. Computation sheet for BTPS -1&2, UPCL and Kudagi are furnished. (Annexure -12)

3. The Commission in its Tariff Order dated 30th May, 2019 has directed as follows:

"The Commission notes an abnormal contribution from the State towards payment of PGCIL transmission charges. Due to this there will be a substantial 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, which studies the pros and cons of any methodologies/amendments proposed to PGCIL's Transmission tariff or in any such other relevant matters, and shall effectively communicate the same to the concerned authorities, at the draft stage itself. The Commission will not allow such tariff in future, if it considers that the ESCOMs/PCKL have not taken effective and prompt steps to ensure that the PGCIL's transmission tariff is fair and equitable to the State"

HESCOM shall furnish the details of action taken in the above matter.

COMPLIANCE:

Due to addition of capacity and addition of Transmission lines, PGCL Charges have been increased.

2. The Source-wise consolidated reconciliation statement for the energy drawn for FY19 shall be furnished.

COMPLIANCE:

Energy balancing at 33KV energy -404.235 MU and PP cost -164.426 Cr. 11KV Inter ESCOMs flow is -30.289 MU and PP Cost-12.206 Cr. Total Energy Balancing is -434.524MU and PP Cost Rs.-176.6323Cr. Reconciliation Statement for the energy balancing for FY-19 enclosed (Annexure -13).

3. In respect of the following Hydro and thermal stations, as indicated in the D-1 Format, the per unit total cost paid to the generators is on a higher/lower side, as compared with the per unit rates paid by the BESCOM. The HESCOM shall examine the same and recover excess payments, if any, from the generators, under intimation to the Commission, besides explaining the reasons for the difference:

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Particulars	BESCOM	HESCOM
Raichur Thermal Power Station-RTPS 1 to 7 (7X210)	3.46	3.33
Raichur Thermal Power Station-RTPS 8 (1x250)	3.34	3.57
Bellary Thermal Power Station-BTPS-1 (1x500)	3.87	4.00
Bellary Thermal Power Station-BTPS-2 (1x500)	3.61	4.00
Bellary Thermal Power Station-BTPS-3 (1x700)	3.51	3.12
YTPS	3.11	3.12
Sharavathy Valley Projects (10x103.5 + 2x27.5)	0.55	0.33
MGHE (4x21 + 4x13.2)	0.76	0.55
Gerusoppa_Sharavathi Tail Race_STR (4x60)	1.05	1.10
Kali Valley Project_KVP (2x50 + 5x150 +1x135)	0.52	0.41
Varahi Valley Project_VVP (4x115 + 2x4.5) 1& 2		
Varahi Valley Project 3& 4	1.00	0.76
Almatti Dam Power House_ADPH (1x15 + 5x55)	1.00	0.43
Bhadra Hydro_BHEP (1x2+2x12)+(1x7.2+1x6)	3.56	3.42
Kadra Power House) KPH (3x50)	1.40	1.49
Kodasalli Dam Power House-KDPH (3x40)	1.09	
Ghataprabha Dam Power House-GDPH (2x16)	1.63	0.67
Shiva (4x4+6x3) & Shimsha (2x8.6)	0.85	0.27
Munirabad Power House (2x9 + 1x10)	0.68	2.19

COMPLIANCE:

HESCOM has admitted bills as per KPCL claims and also has admitted the CGS bills which include supplementary bills and late payment charges also.

During non- generation of RPCL i.e., YTPS-3 only the capacity charges are considered.

Claims made by RPCL along with the calculation sheet enclosed. (Annexure -14)

 HESCOM shall explain the reasons for considering the fixed cost in respect of hydro stations along with the relevant calculation sheet and document thereon.

COMPLIANCE:

KERC vide Tariff order dated 30.03.2016 for FY-19, has approved Power Purchase Cost of Rs.216.490Cr for KPCL Hydel Stations which includes capacity charges of Rs.26.26Crs.

As per PPA, the tariff for KPCL includes energy charges, capacity charges, Incentive and Royalty. (Annexure -15)

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Further even during non- generation, the capacity charges have to be paid. KPCL declares the estimated capacity charges at the beginning of the financial year and will be revised at the end as per actuals.

b) Power Purchase for FY21(ARR):

1. A separate statement showing the variable cost in the ascending order from different sources of power shall be furnished.

COMPLIANCE:

Variable cost in the ascending order for FY 2020-21 as proposed in the filing as detailed below

SI no	Generating station	Variable cost Rs per unit
1	New NLC Thermal Power project	2.196
2	NTPC-Talcher	2.232
3	NLC TP\$1-Expn	2.463
4	NLC II expansion(2X500MW)	2.521
5	NTPC-III	2.574
6	N.T.P.C-RSTP-I&II	2.616
7	NLC TPS2-Stage 1	2.686
8	NLC TPS2-Stage 2	2.686
9	DVC- Kodemma thermal Power Station	2.727
10	NTPL	2.894
11	D VC- Meja thermal Power Station	2.957
12	Simhadri Unit -1 &2	3.242
13	RTPS Unit 8	3.422
14	BTPS Unit III	3.463
15	RTPS -1 & 7	3.624
16	BTPS Unit II	3.669
17	UPCL	3.687
18	Vallur TPS Stage I &2 &3	3.730
19	Yermarus TPS - 1 & 2	3.812
20	BTPS Unit I	3.925
21	Kudgi Units 1, 2 and 3	4.074
22	Yelahanka Combined Cycle gas Power projects	4.751

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2. HESCOM shall furnish the basis and the documents relied upon to consider the fixed cost and the variable cost in respect of BTPS unit-3, YTPS- units 1 &2.

COMPLIANCE:

BTPS Unit3

The KPCL has filed tariff petition in respect of BTPS Unit-3 before Ld KERC from the date of COD of the plant as per the terms of PPA and Tariff Regulation. The determination of the tariff for the project is yet to be finalized. Hence, capacity charges proposed in the letter dated 8.11.2019 by KPCL is considered.

The average variable cost for the month of July -2019, Aug-2019 and Sep-2019 is considered for energy charges for FY 2020-21.

YTPS Unit 1&2

Raichur Thermal Power Corporation Ltd has filed tariff petition in respect of YTPS Unit 1 &2 before Ld KERC from the date of COD of the plant as per the terms of PPA and Regulation. The determination of the tariff for the project is yet to be finalized. Hence, capacity charges, energy charges and income tax details furnished by YTPS in the email dated 7.11.2019 is considered.

- 3. HESCOM shall furnish the capacity and quantum of energy to be procured from RE projects for which it has executed the PPAs in the following format for FY21:
- 4. HESCOM shall also furnish the methodology for forecasting the RE energy for FY21.

COMPLIANCE:

SI No	RE Sources	Commissioned Capacity in MW	Likely to be Commissioned Capacity in MW	Forecasted energy(in MU)	Total Cost Rs. Crs.	Remarks
1	Wind	1061.45	N#1	2573.7	1082.28	
2	Hydro	35.00	7/24	32.65	11.32	r.
3	Co- gen(Regu)	378.86	1/2	688.17	294.45	
5	Biomass	0	24	0	0	
6	Municipal Solid Waste	0	n =	0	0	
7	Solar MW Projects	940.00	•	1783.97	830.24	
8	Solar SRTPV Projects	13.72	-	20.58	133.15	
Total		2429.03	0	5099.07	2351.44	

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The methodology for forecasting the RE energy for FY21.

- The actual generation of NCE projects for the year 2018-19 has been considered for 2020-21 including Solar, Bio-mass, Wind Mills and Mini Hydel projects.
- The 60% PLF is considered for Co-generation projects those Co-generation units signed PPA under medium term.
- Project which are expected to be commissioned during 2019-20 is based on scheduled CoD of the projects in respect of 1 to 3 Farmer scheme, Talukwise solar and Bidding by KREDL is considered for FY 2020-21.
- The KREDL in its letter dated 7.11.2019 furnished in the list of solar projects commissioned during the year 2019-20 and projects to be commissioned during FY 2020-21. The same is considered for energy projection during FY 2020-21
- The PLF is based on tariff orders issued by KERC for control period from 2018-19 to 2020-21is considered to arrive energy for FY 2020-21.

4. RPO Compliance:

a. RPO for FY19:

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The Commission notes that HESCOM has submitted the RPO data for both solar and non-solar compliance for FY19.

Excluding, hydro the input energy as per D1-format should be 11,431.87 MU FY19 [14581.54-3150.47(KPCL hydro) +18.39(Shimsha)-7.03 MU(TBHE)-10.56MU(Jurala)], whereas, HESCOM has indicated the same as 11470.19 MU at page 79 for RPO calculations. Also, TB dam share is indicated as 7.03 MU at page 71 and as zero in D-1format. Further, as per D-1 Format, the energy purchased is 14245.65 against 14581.54 MU indicated at page-78. The data shall be reconciled. Also HESCOM shall indicate the hydro energy accounted in energy balancing separately.

As per the power purchase details furnished for FY19, it is noted that the total solar energy purchased including NTPC VVNL is 1367.78 MU [KPCL:2.66 MU, W & B 17.84 MU, total solar including NTPC VVNL & farmers scheme:1347.28 MU], whereas HESCOM has indicated it as 1407.15 MU for RPO. Also, as per D-1 Format, the solar energy purchased is 1360.68 MU. HESCOM shall reconcile the figures with audited data and resubmit the RPO statement.

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Similarly, the Non-solar energy purchased would be 3219.87 MU [Wind energy 2234.39 MU, banked energy 141.78 MU, infirm energy 43.23, mini-hydel 32.65 MU, co-gen 767.82 MU], whereas HESCOM has indicated it as 3173.41 MU for RPO. Also, as per D-1 format the non-solar energy purchased is 3381.21 MU. HESCOM shall reconcile the figures with audited data and resubmit the RPO statement.

COMPLIANCE:

The details of RPO for FY-19 for solar and non-solar furnished.

As per D.1 format, Total energy purchased is 15026.80 MU which includes energy Purchased from solar roof Top 10.74 MU, (Energy purchased from all sources 15016.06 MU + Energy purchase solar Roof top 10.74MU)

Total 15026.80 MU

Total energy purchased excluding Hydro for FY-19 is 11470.19 MU which as follows:

SL No	Particular	Consumption in MU
1	Total energy purchased	15016.06
2	Add Solar Roof top	10.74
	Total Energy purchased	15026.80
3	Less KPCL Hydel	3150.47
4	Less TBHE	7.03
5	Less Priyadrashini Jurala Hydro Project	10.56
6	Less energy purchase from other ESCOMs as per SLDC	388.55
	Total power purchase considered for RPO	11470.19 MU

Note: En Note: Energy purchased from other ESCOMs 388.55 MU as per SLDC deducted is considered for RPO Computation Statement enclosed. (Annexure -16) Energy of 7.03 MU as shown in D1 format against TBHE is correct. Further TB Dam and TBHE are same.

The energy purchased is 14245.65 MU as per page No 79 and also as per T1D1 statement as shown are correct.

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1. The solar energy purchased for FY-19 is 1407.15 MU which includes following sources and the same is considered for RPO.

Sl No.	Solar Projects	Consumption in MU
1.	KPCL Solar	2.66
2	1-3 MW Farmers Scheme	78.06
3	MW scale Solar PPA	992.67
4	NTPC VVNL	24.27
5	NTPC NSM	252.28
6	Solar Roof top	10.74
8	Solar under W&B	17.84
9	Infirm Energy Solar	28.63
	Total	1407.15 MU

Energy towards solar under W&B (17.84 MU), infirm energy solar (28.63MU), banked energy wind under W&B and Though SLDC (108.11+15.83=123.94 MU) and wind Infirm energy (14.60MU) are shown separately in Revised T1D statement. (Annexure -17)

The Non Solar energy purchased for FY-19 is 3173.41 MU which includes following sources and the same is considered for RPO.

Sl No.	Non Projects	Consumption in MU
1.	Wind Mill	2234.40
2	Mini Hydel	32.65
3	Co-gen With PPA	430.25
4	Co-gen Short term	337.57
5	W&B Energy (Wind)	108.11
6	Through SLDC	15.83
8	Infirm Energy (Wind)	14.60
	Total	3173.41

- As per D-1 Format the Non Solar energy purchased is 3374.18 MU which is excluding energy of TBHE 7.03 MU which is Hydro. (Co-gen 762.82 + Mini HYDEL 32.65 + Wind 2573.71).
- **b.** For validating the RPO compliance and to work out APPC, HESCOM shall furnish the data as per the format indicated below, duly reconciling the data with audited accounts for FY19:

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COMPLIANCE:

Non-solar RPO

No.	Particulars	Quantum in MU	Cost- Rs. Crs.
1	Total Power Purchase Quantum from all Sources Excluding Hydro Energy	11470.19	6755.50
2	Non- Solar Renewable Energy Purchased under PPA route at Generic Tariff including Non-Solar RE purchased from KPCL	2697.30	1114.03
3	Non- Solar Short - Term purchase from RE sources, Excluding Sec-11 purchase	337.57	163.41
4	Non –solar Short-Term purchase from RE sources under sec- 11	0.00	0.00
5	Non - Solar RE purchase at APPPC	154.29	59.35
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 like (Banked energy & Infirm energy)	138.54	13.81
10	Total Non-Solar RE Energy Purchased [No 2+ No3+No4+No5+No7+No9]	3327.70	1350.60
11	Non-Solar RE accounted for the purpose of RPO [No 10-No5-No6-No8]	3173.41	1291.25
12	Non-Solar RPO complied in % [No 11/No 1]*100	27.67	19.11

Solar RPO

No.	Particulars	Quantum in MU	Cost- Rs. Crs.
1	Total Power Purchase Quantum from all sources	11470.19	6755.50
2	Solar Energy Purchased under PPA route at Generic Tariff including Solar Energy purchased from KPCL	1084.13	561.96
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 APPPC		
6	Solar Energy pertaining to green energy sold to consumers under green tariff		
7	Solar Energy purchase from other ESCOMs		
8	Solar Energy sold to other ESCOMs		
9	Solar Energy purchased from NTPC as bundled power	276.55	153.49
10	Solar energy purchased from any other source like banked energy & Infirm energy purchased at 85% of Generic tariff	46.47	15.21
11	Total Solar Energy Purchased [No 2+ No.3+No.4+No.5+No7+No9+No+10]	1407.15	730.66
12	Solar Energy accounted for the purpose of RPO [No 11-No5-No6-No8]	1407.15	730.66
13	Solar RPO complied in % [No 12/No 1]*100	12.27	10.82

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5. RPO from-FY-20 and FY-21

Abstract

Particulars	FY-20	FY-21	FY-22
Non Solar (Target)	11.00%	11.00%	11.00%
Non Solar(Expected)	28.67%	27.22%	26.18%
Solar(Target)	7.25%	8.50%	10.50%
Solar (Expected)	17.67%	16.22%	15.18%

The estimated RPO for FY-20 to FY-22 are enclosed as Annexure (18)

5. Wheeling Charges

HESCOM has proposed wheeling charges of 31.27 paise/unit and 72.97 paise/unit respectively for HT network and LT network respectively. Further, HESCOM has proposed technical losses of 6.09% for HT and 8.11% for LT network.

HESCOM has stated that the wheeling charges is applicable to all open access/wheeling transactions except for energy wheeled from NCE sources to the Consumers in the State. However, HESCOM has not indicated, in its petition, the wheeling charges applicable to RE sources, if any. HESCOM may propose wheeling charges for RE sources also, if any, furnishing reasons thereof.

COMPLIANCE:

The renewable energy is wheeled from the state to a consumer or others outside the State, the wheeling and banking charges as specified in the Orders issued by the Commission from time to time shall be applicable. For captive RE generators including solar power projects opting the RECs, the wheeling and banking charges as specified in the Orders issued by the Commission from time to time shall be applicable.

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6. Cross subsidy surcharge:

For FY21 HESCOM has proposed the following CSS:

(paise per unit)

Voltage level	HT-1	HT-2a	HT-2b	HT-2C	HT-4	HT-5
66kV & above	57.41	245.64	401.23	234.94	181.69	1044.65
HT-11kV or 33 kV	-33.92	154.32	309.91	143.61	90.37	953.33

HESCOM shall clarify as to whether the CSS has been computed as per the MYT Regulations wherein, the methodology specified in the Tariff Policy, 2016 is adopted. If not, HESCOM shall file CSS as per the above Regulations. Further, if the CSS computed is negative, it shall be made zero.

HESCOM has stated that CSS as per order dated 14.05.2018 in OP Nos 52/2017 to 56/2017 shall be continued.

The Commission notes that in the above order, the Commission has determined the Additional Surcharge and not CSS.

HESCOM is directed to submit computation of CSS in respect of LT categories also.

COMPLIANCE:

The CSS is computed as per the methodology specified in the Tariff Policy -2016. Hence, it is prayed to Hon'ble KERC for considering the Cross subsidy surcharge (CSS) proposed for FY-19 and also requested to consider the CSS as zero where CSS Computed is negative. At present scenario as there is no CSS for LT categories computation of CSS is not made.

7. Additional Surcharge (ASC):

HESCOM has proposed that the uniform additional surcharge be continued and the same shall be worked out by the Commission, considering the total fixed costs of all ESCOMs.

The Commission directs HESCOM to compute the ASC, as per the methodology adopted in Tariff Order 2019 and submit the same along with working details.

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COMPLIANCE:

As desired by the Hon'ble Commission, the recoverable Additional Surcharge for FY-21, based on Actuals of FY-19 is computed and submitted :

Computation of Additional Surcharge for FY21 based on Actuals of FY-19:

Table-1

Sl No	Particulars	Unit	110KV 66KV &11 kV	LT	Total
1	Energy Sales as per flow diagram	MU	2019.18	9740.81	11759.99
2	Share of sales Voltage-wise	%	17.17%	82.83%	100.00%
3	Distribution Losses	MU	345.73	1667.86	2013.59
4	Total IF energy (1+3)	MÜ	2364.91	11408.67	13773.58
5	Transmission Loss	%	81.05	391.02	472.07
6	Total Energy at Gen Bus (4+5)	MU	2445.97	11799.68	14245.65
7	Share of Energy procured at different voltages (voltage wise energy/total energy*100)	%	17.17%	82.83%	100.0%
8	Total PP Cost	Rs.in Cr.			6827.05
9	Share of PP Cost = 8*7		1172.20	5654.85	6827.05
10	Other Cost (Transmission & Dist. Network)	Rs.in Cr.			0.00
11	Share of other cost =2*10	Rs.in Cr.	0.00	0.00	0.00
12	Total Cost = 9 + 11	Rs.in Cr.	1172.20	5654.85	6827.05
13	Voltage wise per unit Cost	Rs./unit	5.81	5.81	5.81

Table-2

SI No	Particulars	Unit	110KV 66KV &11 kV	LT	Total
1	Total PP Cost (Sl. No. 8 of Table-1)	Rs.in Cr.			6827.05
2	Share of PP Cost as per Sl. No. 7 of Table-1	%	17.17%	82.83%	100.00%
3	Share of PP Cost as per Sl. No. 9 of Table-1	Rs.in Cr.	1172.20	5654.85	6827.05
4	Total Fixed Charges of Power Purchase @ Gen. Bus	Rs.in Cr.			1390.77
5	Voltage wise Fixed Charge =2*4	Rs.in Cr.	238.79	1151.98	1390.77
6	Total Variable Charges of PP at Gen. bus	Rs.in Cr.			5436.28
7	Voltage wise VC = 6*2	Rs.in Cr.	933.40	4502.88	5436.28
8	Other Cost as per Sl. No. 10 of Table-1	Rs.in Cr.	0.00	0.00	0.00
9	Total Fixed Expenditure (4+8)	Rs.in Cr.	238.79	1151.98	1390.77

Table-3

Sl No	Particulars	Unit	110KV 66KV &11 kV	LT	Total
1	Revenue for the year		1283.96	6285.16	7569.12
2	Total Demand Charge(FC) realizd for the year in respect of EHT & HT consumers (except LT)	Rs.in Cr.	7.48	NA	NA
3	FC recoverable as per Sl.No. 9(Total of EHT+HT consumers of table-2 (Except LT)	Rs.in Cr.	238.79	NA	NA
4	Under recovery of FC from EHT & HT Consumers	Rs.in Cr.	231.31	NA	NA
5	Per unit under recovery from EHT & HT consumers to be recovered as Additional Surcharge	Rs. Per Unit	1.15	NA	NA

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8. Distribution Losses:

a. HESCOM, in its application filed for the approval of Annual Performance Review for FY 19, has indicated 14.62% as the actual distribution losses for FY19 as against the approved distribution losses of 14.90%. Thus, there is a reduction of 0.28% over the approved distribution losses for FY19. HESCOM has retained the Commission's approved distribution at 14.40% and 14.20%, for FY20 and FY21, a meagre reduction of 0.22% over the actual distribution loss of 14.62% of FY19 and further 0.20% reduction over the projected losses of FY 20.

Though the HESCOM has achieved the distribution loss of 14.62% during FY19 and has proposed the huge capex with the main objective to reduce the distribution losses and improve quality power supply to its consumers, the distribution losses proposed by the HESCOM with reference to the Commission approved loss levels for FY20 and FY21 are not justifiable. HESCOM need to re-look on the issue and re-assess and submit the revised projected distribution losses for FY20 and FY21.

b. HESCOM in its filing has indicated the actual distribution losses in the range of 15.04% to 24% in respect of some of the towns/ cities, which is more than the actual distribution losses of 14.62% of the Company for FY19. HESCOM, in spite of investing huge capital expenditure during the previous years, the distribution losses in these cities/ towns are found to be abnormal. The reasons for the abnormal losses in these cities/ towns should be analysed by HESCOM and the action plan proposed for reduction of losses shall be furnished to the Commission.

COMPLIANCE:

Endeavouring to its best efforts to bring down the Distribution loss to lowest level, HESCOM is making all possible efforts. Like carrying out system Improvement works in most efficient way i.e. completion of works on time, time bond in assignment of works to agencies. The result of which HESCOM is able to achieve the target set by Hon'ble Commission. However the HESCOM will be able to maintain the Distribution loss to level where it has reached. Even though No of IP sets with no proper infrastructure (i.e. HT/LT line) are added during FY-19 the pathetic infrastructure of these IP sets will lead to much higher loss. We will able to control the loss level to its best possible level by

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creating infrastructure to these IP sets which requires time. Hence in next two to three year will be challenge for HESCOM to manage Distribution loss to its current level. Which may kind be considered.

Apart from these category of consumers there is also addition of other category consumers which requires lot of infrastructure works to be carried out.

Even with all these difficulties HESCOM will stand to its commitment to achieve Distribution loss to 14.40% and 14.20% for FY 20 and 21.

Hence it is requested Hon'ble Commission to allow HESCOM to retain the Commissions approved distribution losses at 14.40% and 14.20% for FY 20 and FY 21.

a. It is brought to the kind notice of Hon'ble Commission that Distribution losses in towns and cities are within 15%. However some feeders has higher losses due to lengthy span, age old conductors and the same will be analysed as directed by Hon'ble Commission. Further HESCOM has planned the following activities to further reduce losses.

Action plan for reduction of high Distribution loss in towns/cities/feeders is presented as below.

- There are 418 Nos of Urban feeders (as on Sep-19) in the HESCOM Jurisdiction. All the feeders are continuously monitored by way of conducting feeder-wise energy audit and corrective action is being taken.
- 2) Distribution losses is mainly due to the age old conductor with lesser current carrying capacity. Re conductring of HT and LT lines have been proposed wherever conductor capacity is less by replacing higher capacity conductor. For FY-20 target of 2000 Kms is set.
- 3) Providing DTC metering to the remaining Non R-APDRP towns & village DTC's will be taken up.
- 4) Providing additional distribution transformer centers, Arial bunched cables, maintenance works of DTC's, etc. is being regularly carried out. By virtue of these works lower AT&C losses will be achieved.
- 5) Providing additional distribution transformer centres to Non R-APDRP areas under NEF scheme. 2577 nos of different capacity distribution transformer are proposed. Total Capital budget provision of Rs. 47.92 crores is made for the above work.
- 6) Providing UG cables / Arial bunched cables in 11 KV distribution network for Belgavi, Hubli-Dharwad cities, under NEF Schemes is under progress. A budget provision of RS 150 Crores is made works will minimise the 11 KV losses to further lower value.

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7) IPDS project will be implemented with an objective of further reducing losses to greater Extent. Capital budget of Rs123.85 crs is provided for the above work.

Operation and Maintenance Expenses:

HESCOM in its filings, has projected the total O&M expenses of Rs.969.88 Crores for FY19, as against the approved O&M expenditure of Rs.835.77 Crores. This amount comprises of Rs.62.37 Crores towards R&M expenses, Rs.781.78 Crores towards Employees cost and Rs.125.73 Crores towards A&G expenses, which are the actual expenses as per the audited accounts for FY19. The actual employees cost also includes the terminal benefits, which is considered as an additional employees cost towards the contribution to Pension & Gratuity (P&G) Trust for Rs.174.96 Crores.

The Commission, in its Tariff Order 2019, while undertaking the APR for FY18, has allowed the provision of Rs.91.98 Crores, made for the arrears of revision of pay scale to the employees from 01.04.2017 to 31.03.2018, as an additional employees cost. HESCOM shall furnish the actual payment of arrears amount to its employees on account of pay revision for FY18 during FY19 and the additional contribution made to P&G Trust thereon.

Further, HESCOM shall furnish the actual employees cost incurred during FY19 by excluding the arrears of pay revision and contribution to P&G Trust thereon for the FY18.

COMPLIANCE:

The actual payment of arrears amount to its employees on account of pay revision for FY18 during FY19 is Rs.91.98 Crores and enclosed as Annexure-19

The details of the actual employees cost incurred during FY19:

Rs. Crores

Sl No	Particulars	Amt
1	The actual employees cost incurred during FY19 by excluding the arrears of pay revision and contribution to P&G Trust & other terminal benefits	514.84
2	Payment of Arrears of pay revision	91.98
3	Payment of the Terminal Benefits for F-19	174.96
	Total	781.78

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HESCOM, has claimed an amount of Rs.37.13 Crores as an additional employee cost towards pay revision arrears of Physically Challenged Revenue Assistants / Junior Assistants, whose services were regularized with effect from 29.12.2010 as per KPTCL Order No. KPTCL/B16/4682 (III)/2006-07 dated 14.01.2019. HESCOM shall furnish the copy of the Order and the computation sheet for the claim and the copy of the Journal entry passed to account the said expenditure in its book of accounts for FY19.

COMPLIANCE:

Copy of the Order towards pay revision arrears of Physically Challenged Revenue Assistants / Junior Assistants, whose services were regularized with effect from 29.12.2010 and the computation sheet for the claim and the copy of the Journal entry passed to account the said expenditure in its book of accounts for FY19 is enclosed as Annexure-20

Terminal Benefits under O&M expenses:

HESCOM, in Format D-6, has claimed Rs. 174.96 Crores, Rs.193.83 Crores and Rs. 214.74 Crores towards Terminal Benefits for FY19 to FY21respectively. HESCOM shall furnish the computation sheet for having claimed this amount with clear bifurcation of the amounts between the employees recruited prior to 31.3.2006 and after 31.3.2006.

COMPLIANCE:

The details of the Terminal Benefits for F-19:

Rs. Crores

	Total	174.96
75.890	Pension & leave contribution of employees on deputation.	0.01
75.880	Compensation under KPTCL life cover scheme, 1987	0.04
75.860	Family Benefit Fund Contribution	1.26
75.840	Terminal Benefits (Gratuity)	11.25
75.832	Lump sum Compensation paid to the legal heirs on death of the employee / Officers while in service in respect of employees / officers appointed on or after 01-04-2006 under NDCP Scheme.	0.17
75.831	Terminal Benefits - HESCOM contribution to new defined contributory pension scheme w.e.f 01.04.2006.	22.40
75.830	Terminal Benefits (Pension) Corporation's Contribution	139.78
75.820	Terminal Benefits (FPS) Corporation's Contribution	0.02
75.810	Terminal Benefits (PF) Corporation's Contribution	0.03

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11. Administration and General Expenses:

HESCOM, in its filing of APR for FY19, has claimed the following expenditure under A &G expenses:

		Rs	. Crores
Particulars	FY19 (Actuals)	FY20	FY21
Other Professional charges	52.79	58.48	64.79
Conveyance and Travelling charges	41.90	46.42	51.43
Remuneration to contract Agencies	10.62	11.77	13.03

As per the provisions of MYT Regulations, the O&M expenses are controllable expenditure and every ESCOM need to control the expenditure under this head by utilizing the available resources within its control in a prudent manner. HESCOM shall furnish the reasons for having incurred huge amount of expenditure under this head of account along with breakup details for FY19, besides re-examining the amount considered for FY21.

COMPLIANCE:

Break-up details of A & G Expenses is submitted and action will be taken to control and reduce the expenditure.

Break-up details of Administration & General Expenses for FY-19:

Particulars	A/C code	Amount (in Crs.)
	76.124	0.03
(24/34/04 Patternament (24/34/4/14 Attended (24/34/4/14 Attended (24/34/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/4/	76.125	0.70
Other Professional	76.127	24.58
Charges	76.128	0.03
	76.129	27.45
Tota	l	52.79
	76.130	20.50
	76.132	0.14
Conveyance &	76.133	4.67
Travelling Charges	76.136	1.36
	76.137	15.03
	76.138	0.20
Tota	41.90	
Remuneration to contract agencies	76.140	10.62
Grand T	otal	105.31

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12. Fuel cost adjustment charges (FAC):

HESCOM, in its filing under Form - D2, has not considered the Fuel Cost Adjustment Charges (FAC) demanded from the consumers during FY19. HESCOM shall furnish the quarter wise details of FAC demand raised Vs FAC approved by the Commission for FY19.

COMPLIANCE:

Quarter wise details of FAC demand for FY-19:

Billing Quarter	Approved rate in Ps per Unit	Consumption in MU	FAC Demand in Cr
Apr-18 to Jun-18	-10	3082.32	0.06
Jul-18 to Sept-18	-06	2614.54	0.00
Oct-18 to Dec-18	08	3083.67	23.33
Jan-19 to Mar-19	04	2979.46	11.49
Total		11759.99	34.88

13. Tariff Subsidy to IP set installations for FY 21:

HESCOM in its filing for FY21, has proposed increase in energy charges to irrigation pump sets up to 10 HP (LT4(a)) category by 45 paise per unit from the existing rate of Rs.6.49 per unit to Rs.6.94 per unit and has proposed subsidy of Rs.5267.62 Crores from the Government of Karnataka towards the proposed IP sets sales of 7589.53 MU for FY21, as against the approved energy sale 6619.47 MU and tariff subsidy of Rs.4296.04 Crores for FY20. As such, there is an increase in proposed IP sales by 970.06 MU and tariff subsidy by Rs.971.58 Crores over the approved figures for FY20. The proposed increase in subsidy accounts for 23% over subsidy for FY20. The Commission notes that, these installations are covered under tariff subsidy from Government of Karnataka. HESCOM shall furnish whether there is any commitment letter from the Government of Karnataka regarding the budgetary provisions to meet the subsidy for IP sets for FY21. If not, on the basis on which HESCOM has proposed the increase in the tariff subsidy needs to be explained. In the absence of the commitment letter from the GoK, the Commission will not consider any enhanced consumption of IP sets for FY21.

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COMPLIANCE:

Projection is made considering 5 years CAGR and the same is brought to the notice of GOK, budgetary provision to meet the subsidy for IP sets for FY21will be made by the GOK as per G. O. No. EN 55 PSR 2008, dtd. 04.09.2008 and Copy of the said GOK Order is enclosed as Annexure-21

Further, HESCOM shall also furnish the details about the hours of power supply arranged to IP sets during FY19 and supplied / proposed to be supplied during FY20 and FY21 with reference to the GoK Orders issued in connection with hours of power supply to IP set installations.

COMPLIANCE:

The hours of power supply arranged to IP set feeders during FY 19 & supplied/proposed to be supplied during FY-20-21 is as noted below.

Hours o	f Power su	ipply arra	nged in h	rs
	Ru	ıral		EIP
Feeder Category	3ph	1 ph	3ph	open delta
FY-19	7	4	7	4
Hours of Power	supply as	sumed to	be arran	ged in hrs
FY-20	7	4	7	4
FY-21	7	4	7	4

14. Demand, Collection and Balance (DCB) for FY19:

HESCOM shall furnish the demand, collection and balance statement in the format annexed to the audited accounts for FY19.

COMPLIANCE:

Demand, collection and balance statement in the format annexed to the audited accounts for FY19 is enclosed as Annexure-22.

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Compliance to directives issued by the Commission:

i. Consumer interaction meeting at Subdivision level.

Observation made by Commission:

HESCOM was directed to conduct consumer interaction meetings at Subdivision level

chaired by the SEE once in a quarter to redress the consumer complaints. HESCOM has

submitted the summary of consumer interaction meetings conducted in all the subdivisions

during 1^{st} & 2^{nd} quarter of the FY20 in its filing. The details of such meetings as desired in the

prescribed format shall be furnished for FY19 and till September 2019.

As directed, the HESCOM is not furnishing the details of the CIMs conducted once in three

months to the Commission. HESCOM has to confirm on, whether the proceedings of such

meetings are hosted in its website.

The HESCOM shall furnish compliance thereon.

Compliance:

HESCOM is conducting consumer interaction meetings at Subdivision level chaired by the

SEE once in a quarter to redress the consumer complaints. The details of such meetings in

the prescribed format for FY-19 till September-2019 is enclosed (Annexure-23). The details

are being submitted to the Commission on a quarterly basis for review meeting & the same

is hosted in the HESCOM website.

ii. Directive on preparation of energy bills on monthly basis by considering 15 minute's

time block period:

Observation made by Commission:

HESCOM has furnished the month-wise details of number of open access consumers sourcing

power from power exchange, open access, units scheduled / consumed in MU and illegally

banked energy, if any, for FY19 and up to September 2019, but HESCOM has to furnish the

details of revenue gain for the above periods.

Compliance:

HESCOM has furnished the month-wise details of number of open access consumers sourcing

power from power exchange for FY19 and up to September 2019.

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Sl. No.	Month	Scheduled Units as per SLDC/IEX	Actual Open Access Units	Profit units to HESCOM
1	Apr-19	15.67	14.05	1.62
2	May-19	10.32	10.14	0.18
3	Jun-19	13.67	13.26	0.41
4	Jul-19	16.81	12.95	3.87
5	Aug-19	11.04	10.84	0.20
6	Sep-19	17.94	17.83	0.12
	Total	85.46	79.07	6.39

The revenue gain for the above period approximately works out to 460.08 lakhs, considering 7.20 paisa per unit.

iii. Directive on implementation of Standards of Performance (SoP)

Observation made by Commission:

The HESCOM was directed to display the SoP parameters in all its O&M Subdivisions and O&M Sections. Also directed the HESCOM to carry out effective supervision over the functioning of field offices particularly in rendering of services to the consumers, relating to restoration of supply of electricity and to submit the details of number of violations of SoP by officers, sub-division wise, month wise, amount of penalty levied on the officers and the amount paid to the consumers for any delay in service.

Directed HESCOM to conduct awareness campaign at the Hobli levels for educating the public about the Standards of Performance prescribed by the Commission. HESCOM to conduct necessary orientation programme for all the field officers and the staff up to linemen to educate them on the SoP and the consequences of non – adherence to the SoP. Further, the Commission directed HESCOM to publish the "HAND BOOK" in Kannada on the SoP and arrange to distribute to all the staff and stake holders and submit the quarterly progress.

But the HESCOM is not submitting the compliance periodically. It is said to have published the hand book on SoP, but has not enclosed the copy for information of the Commission. HESCOM has reported the conduct 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. HESCOM shall submit the compliance regularly.

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Compliance:

Strict instructions have been issued to the concerned officers to display the Standards of

Performance (SOP) posters in all the O & M offices of HESCOM and any breach in rendering

services of the SoP will be penalized as per the provision of SoP Regulations. The progress

report on SoP is being submitted to the Commission every quarter and the same is hosted in

the HESCOM's website: www.hescom.co.in. The HESCOM is making all efforts to strictly

implement the specified SoP while rendering services related to supply of electricity.

HESCOM has displayed the SoP parameters in all its O&M Subdivisions and O&M Sections

Grahakara Kaipidi is being regularly published and distributed among the HESCOMs staff,

various other stake holders and Consumers. Further, any amendments to the regulations or

any additional information to be updated is incorporated in the Grahakara Kaipidi and the

same is hosted in HESCOM website. The copy of the Grahakara Kaipidi is enclosed

(Annexure-24).

The Form - A, to claim compensation for non-compliance of the SoP under KERC (CGRF and

Ombudsman) Regulations, 2004 is displayed in the notice boards of all HESCOM Offices.

HESCOM is carrying out the awareness campaigns regarding the Standards of Performance

through the DSM activities. The banner of the various services such as replacing the failed

transformers, attending to fuse off call / line breakdown complaints, arranging new

services, change of faulty meters, reconnection of power supply, etc., rendered as per

Schedule-1 of the KERC (Licensee's Standards of Performance) Regulations, 2004 is

displayed in the HESCOMs stall under the DSM activity to make the consumer aware

regarding services.

iv. Directive on use of safety gear by linemen:

Observation made by Commission:

HESCOM is not submitting the quarterly compliance report to the Commission. As per the

statistics furnished in the data for ESCOMs review meeting 2499 number of linemen and 19

number of linemen on contract basis has to be provided with the safety gear.

HESCOM shall submit the statistics and the definite timeline for providing complete set of

safety gear to all the lineman.

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Compliance:

The following safety gear/equipment have been procured & supply during the year 2018-19 & 2019-20.

(1) Details of safety materials procured during 18-19 & allotted to field staff.

Sl No	Name of the Material	PO No & Date	Quantity
1	Tool kit	2680/17.03.2018	1500 Sets
2	Rainwear	2683/26.03.2018	500 Nos.
3	Reflective Jackets	2685/26.03.2018	1000 Nos.
4	Safety Belt	2693/09.10.2018	1200 Nos.

(2) Safety materials procured during 2018-19.

SI No	Name of the Material	Quantity	PO No:	Status	
1	Rainwear	4600 Pairs	2742/Dtd:8.7.2019		
2	LED Torch	1600 Nos.	2741/Dtd:18.7.2019	Already issued to all	
3	Reflective Jackets	1700 Nos.	2752/Dtd:5.9.2019	0 & M circles	
4	Helmet	3300 Nos	2751Dtd:5.9.2019		
5	Tool kit	4200 sets	2749/Dtd:17.8.2019		
6	Rubber Hand Gloves	4200 pairs	2753/Dtd:28.8.2019	Within fortnight supply will be completed	
7	Safety Shoes	5756 pairs	Under process 7 will be completed within 60 days.		

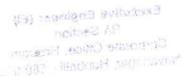
Further it is to inform that tender was already floated on 30.04.2019 for procurement of safety shoes, Tender has been cancelled on 11.07.2019 because of the heavy weight (1000 gms each pair) of the shoes.

Since e procurement portal was not functioning properly for last 3 months, hence there is delay in processing the tender for procurement of safety shoes with revised Technical specification. Tender published on 04.12.2019 for procurement of safety shoes.

Strictly instructed to the work in-charge Officer / all Power men to wear safety gears at the time of work without fail vide Circular No. CYS 2548 Dtd: 21.09.2019 and CYS-2893 Dtd: 11.10.2019.

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v. Directive on providing Timer Switches to Street lights by ESCOMs:

Observation made by Commission:

The HESCOM has not submitted the quarterly compliance report in respect of installation of timer switches, to the Commission.

As per the statistics furnished in the tariff filing in November 2018, 19,203 Nos. SL installations were required to be provided with timer switches. Whereas, as per the information furnished in November 2019, 19,982 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.

HESCOM has also not submitted the compliance as to whether LED / energy efficient lamps are being used while servicing of new streetlight installations.

HESCOM shall submit the compliance on the same.

Compliance:

During Tariff filing in November-2018, 2768 St light installation are provided with timer switches out of 21971 St light installations. During Tariff filing November-2019 5137 Nos of street light installations are provided with the timer switches, out of 25119 Nos of street light installation (as on sep-19), There is increase of 3148 No of total street lights during this period and the increase of 2369 Nos of street light are provided with Timer switches. Ist & IInd quarter reports is give below.

Ist quarter of FY20 (April 2019 to June 2019)

24469	3657	212	106	24681	20918	Corporation/ Panchavat	within 6 months	
2	3	4	5	6=2+4	7=6-(3+5)	8	9	10
Total Number of Street Light Installations Existing as at the beginning of the quarter	No. of installations provided with timer switches	Total Number of Street Light Installation s Serviced during the quarter	Total Number of Street Light Installations Serviced during the quarter with Timer Switches	Total Number of SL installations at the end of the month	Balance No. of installations to be provided with timer switches	Timer Switches provided by ESCOMs / Corporations etc.,	Likely date of providing Timer Switches to all SL installations	Remai ks / Issues

IInd quarter of FY20 (April 2019 to June 2019)

24681	3763	438	1374	25119	19982	Corporation/ Panchayat	within 6 months	
2 (1-1)	respiration of	WEIGHT	5	6=2+4	7=6-(3+5)	8	9	10
Total Number of Street Light Installations Existing as at the beginning of the quarter	No. of installations provided with timer switches	Total Number of Street Light Installations Serviced during the quarter	Total Number of Street Light Installations Serviced during the quarter with Timer Switches	Total Number of SL installations at the end of the month	Balance No. of installations to be provided with timer switches	Timer Switches provided by ESCOMs / Corporations etc.,	Likely date of providing Timer Switches to all SL installations	Remark / Issues

HESCOM issued direction to all CEE'/SEE'/EE's & also constantly pursuing to ensure that all new streetlight/high mast installations including extensions made to the existing streetlight circuits shall be serviced only after providing with timer switches & for providing of LED lamps (6927 installations are provided with LED lamps). Further HESCOM is relentlessly pursuing local bodies for installing timer switches to avoid wastage of energy and spreading awareness about providing timer switches to Streetlights & LED bulbs through newspaper, Distribution of pamphlets and DSM awareness programs.

Even after HESCOM relentlessly pursuing with the local bodies for installing timer switches to avoid wastage of energy, it is practically difficult for HESCOM to implement the directive, since Streetlight Installation/maintenance come under the purview of local bodies, Corporation/Panchayat.

vi. Directive on Load shedding:

Observation made by Commission:

The HESCOM in its tariff filing has informed that it is making use of "URJA MITRA" app developed by MoP for the dissemination of SMS on outage information to citizens by field staff. However, the details of only 27.54 lakh consumers are uploaded in the Application out of 44.35 lakh consumers. HESCOM shall submit the action plan for updating the details of 100% of consumers in order to utilize the Application effectively.

Compliance:

HESCOM is making use of "URJA MITRA" Web portal/mobile app developed by MoP. Urja Mitra provides outage management and notification platform for dissipating the outage information to power distribution through SMS.

- * Number of consumers existing in HESCOM Jurisdiction-44.35 Lakhs (live installations).
- * 37.73 Lakhs consumers' details are uploaded in URJA MITRA. 85.07% of consumer's details are available in the URJA MITRA Portal (screen shot enclosed Annexure-25). Hescom has directed to all O&M Divisions to submit 100% consumer data of corresponding divisions for uploading it in URJA MITRA Portal. Updation of balance number of consumer details is in progress. Updation of 100% of consumer data in URJA MITRA Portal will be achieved by April-2020.

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Directive on establishing a 24 X 7 fully equipped centralized consumer service centers vii.

Observation made by Commission:

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.

The HESCOM shall furnish compliance in this regard. Comparison of the downtime analysis

for FY18 and FY19 shall be furnished.

Compliance:

To reduce the consumer down time to address the complaints, HESCOM has increased no. of

1912 executives Nos from 7 to 15 seating capacity per shift and instructed all the executives

to attend the complaints by regular follow ups. During 2018-19 there were 7 exécutives per

shift in 1912 help line, it has been increased to 15 exécutives per shift to reduce down time.

viii. Directives on Energy Audit:

Observation made by Commission:

Energy Audit of cities / towns

The HESCOM is not furnishing the energy audit reports regularly to the Commission.

HESCOM shall furnish details of feeder-wise energy audit along with the details of measures

initiated to reduce loss levels wherever the same are above 15% up to September, 2019.

DTCs Energy Audit:

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.

HESCOM is said to have conducted EA for only 18,500 to 27,000 numbers of DTCs, out of

64,241 numbers of metered DTCs.

HESCOM shall submit the details of energy audit conducted for the metered DTCs and the

timeline by which all the remaining DTCs will be metered and audited.

Shall take necessary action to submit the audit reports of towns, DTCs and feeders on

quarterly basis to the Commission.

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Compliance:

Energy audit of Cities/ Towns:

Towns / Cities and feeder wise energy audit details from April-19 up to Jun-19 has been

already submitted to the Hon'ble Commission. Further, Jul-19 to Sep-19 towns /cities and

feeder wise details will be submitted for your kind consideration. Further measures initiated

to reduce loss levels are as below.

Action plan for reduction of high Distribution loss in towns/cities/ feeders is presented as

below.

1) There are 418 Nos of Urban feeders (as on Sep-19) in the HESCOM Jurisdiction. All the

feeders are continuously monitored by way of conducting feeder-wise energy audit and

corrective action is being taken.

2) T&D losses is mainly due to the age old conductor with lesser current carrying capacity.

Re conductoring of HT and LT lines have been proposed wherever conductor capacity is

less by replacing higher capacity conductor. For FY-20 target of 2000 Kms is set.

3) Providing DTC metering to the remaining Non R-APDRP towns & village DTC's will be

taken up.

4) Providing additional distribution transformer centers, Arial bunched cables,

maintenance works of DTC's, etc., is being regularly carried out. By virtue of these works

lower AT&C losses will be achieved.

5) Providing additional distribution transformer centers to Non R-APDRP areas under NEF

scheme. 2577 Nos of different capacity distribution transformer are proposed. Total

Capital budget provision of Rs. 47.92 Crores is made for the above work.

6) Providing UG cables / Arial bunched cables in 11 KV distribution network for Belgavi,

Hubli-Dharwad cities, under NEF Schemes is under progress. A budget provision of RS

150 Crores is made for the works which will minimise the 11 KV losses to further lower

value.

7) IPDS project will be implemented with an objective of further reducing losses to greater

Extent. Capital budget of Rs123.85 Crs.

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DTC Metering:

- 1. HESCOM has taken up DTC Metering in two Phases (Phase-I & II).
- 2. The project consists of Supply, Installation, Commissioning Maintenance of Composite Thread through Type Meter Box of class 1.0 with LT Electronic Tri-Vector Meter having AMR compliant with associated CT's, Modem and other materials for Un Metered Non IP set DTCs in all the Non-RAPDRP Town Areas and Rural Areas in all O & M Divisions of HESCOM Jurisdiction and The work is awarded to M/s. Asian Fab Tech Limited, Bangalore on division wise Packages (Phase I & Phase II). As per the DWA, the scope of the work involves;
 - Supply, Installation, Commissioning and Maintenance of Composite Thread through Type Meter.
 - b. Online transfer of Data from Thread through type meter (meter is having in-built Current Transformer (CT), Modem, SIM. Modem and SIM for online data transfer) to the centralized server by establishing communication.
- 3. The agency is maintaining server and has hosted web based application.URL (address of the web application, 125.16.20.2/ HESCOM), user login id and password have been given to the concerned HESCOM officials.
- **4.** Metering of all the 40793 Nos of DTCs is completed under Phase I & Phase-II as per the Award.
- 5. Communication is established for only 32624 nos DTCs in the centralized server established by the agency for subject work during the month of October-2019 since there was heavy rainfall in the month of July-2019 August 2019 & September-2019, severe <u>flood</u> affected the northern districts of <u>Karnataka</u> state which comes under HESCOM Jurisdiction. Belagavi, Vijaypura Dharwad, Bagalkot, Haveri & Uttar Kannada districts are affected by Flood and several villages & towns DTCs are submerged. Due to which meters and lead wire of some the DTCs got damaged and also Modem of the some of the DTCs is damaged which affected the Network connectivity which will be addressed at the earliest.

Further, the subject works is taken in rural areas and Malanad area of Uttar Kannada district. Agency is facing network connectivity Problem for establishing communication with the server.

6. Based on Data of Load, Consumption, Phase wise Voltage and Currents available in web based application, Following action is being taken by the Field officials;

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- i. Analyses of imbalance in load, Voltage and current on each phase of the DTC.
- ii. Shifting of LT load from one to another phase for balancing the load.
- iii. Providing additional DTCs/Augmentation of DTCs to ovoid overloading of DTCs which has resulted in decrease in Failure of DTCs.
- iv. System improvement works such as re-conductoring of HT/LT lines.
- 7. Further, implementation of web based TRM software for Non-RAPDRP areas of HESCOM is awarded to M/s. N-Soft (India) Services Pvt. Ltd., Bengaluru by SEE (IT), HESCOM.
- 8. Both the agencies have to integrate the solutions i.e. M/s. AFTL will transfer DTC meter consumption to M/s. N-Soft for DTC wise energy auditing.
- 9. Energy Audit of approximately 27120 Nos of DTCs is carried out during month of October- 2019 (Enclosed Annexure-26) Thefollowing are the remedial measures initiated to reduce losses in those DTCs wherever the loss levels are at higher levels;
 - a) Circulars are issued detailing the guidelines to carry out the Feeder wise Energy Audit of Distribution Transformers.
 - b) All the field officials are directed to check the mapping of DTCs to Feeders and installations to DTCs and rectify the same.
 - c) With regard to negative and high Loss DTCs, It is directed to match the reading of DTCs and installation mapped on the respective DTCs to make sure readings is carried out on same day.
 - d) Calibration of Meters, Replacement of MNR, and Burnt out Meters
 - e) HESCOM has taken up the work of replacement the existing Electro-mechanical /High Precision Meters by static Meters under DDUGJY and IPDS schemes.
 - f) Energy Report of DTCs wherever the loss levels are at higher levels are shared with HESCOM MT and Vigilance staff to check any authorized connections on the DTCs and correctness of the Meter.
- 10. Due to software issues while integrating the data and mismatch in DTC Code, Energy Audit of the some of the Metered DTCs is not being done. Issue will be resolved by the HESCOM in coordination with M/s. Asian Fab Tech and the System Provider viz., M/s. N-soft service private Ltd at the earliest.
- **11.** Further, Notices are served to agency M/s. Asian Fab Tech to provide network connection immediately for the balance DTCs to be communicated.

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ix. Prevention of Electrical Accidents:

Observation made by Commission:

As per the details of hazardous locations furnished, it is found that, as high as 48,938 numbers

of hazardous locations are yet to be rectified as on October 2019. As per the statistics of

accidents, number of accidents occurred during the period April 2019 to October 2019 is on

the rise compared to FY19. In this regard, HESCOM shall furnish the stringent action plan for

rectifying the hazardous locations.

HESCOM has to furnish the summary of the analysis made on the reports submitted by

Electrical Inspectorate for FY20 up to September, 2019, action taken to prevent such accidents

in future.

Compliance:

The details of Hazardous locations by the HESCOM are enclosed (Annexure- 27) the opening

balance at the beginning of April-19 is 5724 Nos. and closing balance was 7867 Nos. Closing

balance for the April-19 is taken as opening balance for the month of May-19 and so on. Hence

during the month Oct-19 No of Hazardous locations identified stands to total figure of 8356

Nos. and Nos. of locations to be rectified by the HESCOM at the end of Oct-19 are 6218 Nos.

HESCOM has its stringent plan to mitigate accident to bring down, Hazardous locations to

ZERO level, lots of public awareness programme has made about safety related issues among

field staff and public as well.

Further as per Electrical Inspectorate report major electrical accidents have been caused due

to lack of awareness of public /consumers, sagging of conductors, not use of proper rated fuse,

snapping of deterioted and age old conductors etc. HESCOM has made consistent efforts in

reducing electrical accidents. Many Circulars, public awareness programs to

consumers/Public, pamplets, Jingles and Advertisement in AIR etc has been provided

regarding electrical safety methods.

HESCOM has made effort to take necessary corrective measures/improvement works near

schools/collages/ public places and Hazardous locations. Further measures has been taken to

replace broken poles, deterioted conductors, Providing intermediate poles in lengthy span,

Distribution transformer maintenance work has been carried out to reduce the electrical

accident. A detailed plan of action is elaborated as below for kind consideration of Hon'ble

Commission.

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Detail plan of action for reduction of No of Accidents:-

HESCOM has vast distribution network with 86243kms High Tension line , 135000kms Low Tension line and more than 2.2 lakhs of DTCs and apart from these we have 178 Nos. of 33/11 kv MUSS to cater the needs of around 51.8 lakh consumers. Efforts are being made continuously to avoid electrical accidents and there is lack of knowledge among maintenance staff/public/ consumer. We have taken up huge awareness programmes to educate the field staff and public about the electrical safety measures. HESCOM is continuously engaged in identification and rectification of all the hazardous locations/installation to prevent electrical accidents. HESCOM is striving to have continuous awareness campaigns through visual / print media on safety aspects among public. Along with all this the following measures has been taken for prevention of accidents to: Employees /consumers / Public.

Employees: All the officers are instructed to ensure that all the linemen in their jurisdiction are provided with proper and adequate safety gear. The linemen are instructed to compulsorily use such safety gears provided to them while working on the network.

The Chief Engineers of respective zone are authorized to procure good quality tool kits and safety belts to be provided to linemen coming under their jurisdiction.4600 pairs of rainwear, 4200 sets of Tool kit , 3300 Nos. of Helmets are procured and issued to the working staff during 2019-20. Reflective Jackets and LED torch have also been procured and allotted to all the divisions in HESCOM, and it is strictly instructed to use them while working.

Safety manuals are circulated among all the Divisional /sub-divisional officers and instructed for implementation of safety rules in fields. Further, tendering is in process for procurement of safety materials such as safety belts and safety goggles, safety shoes and Rubber hand gloves. Training Session on electrical accidents and safety procedures to be followed to avoid accidents is being conducted for the newly recruited lineman and to all maintenance staff, at Training Centre of HESCOM, Hubballi at regular intervals. During the FY 20 safety training is being imparted to linemen, and HESCOM will continue its efforts to educate its staff on this behalf regularly.

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