

**CHAPETR- 8**

**NEW PROPOSAL :**

**1. Payment of additional power purchase cost on account of orders of KERC/  
APTEL**

Every year HESCOM is filing tariff petition for the ensuing Financial Year and the Hon'ble KERC is approving the ARR for that particular. In the interregnum, the Hon'ble Commission and also the Hon'ble APTEL are passing several orders which have foisted additional financial liability on the HESCOM. The quantum to be paid to generators on account of orders of the Hon'ble Commission and the Hon'ble APTEL are significant and the HESCOM is in a precarious financial condition as resources are not available immediately with the HESCOM to comply with the order. The HESCOM is not in a position to immediately make payments that have been ordered in the present situation as the additional burden is not a pass through in the tariff. Unless the Hon'ble Commission includes additional power purchase cost in ARR and retail tariff for that particular, the HESCOM's rights would be prejudicially affected and the HESCOM would suffer gravely.

Statement containing details of orders imposing financial liability on the HESCOM and paid by the HESCOM in FY-23 and balance payable is produced herewith as **Annexure C**. In view of orders as stated in Annexure A, the HESCOM is financially overburdened with the additional financial implication of Rs 79.28 Crs. HESCOM has taken loan from various banks and financial institutions to make payment of the said amount bearing interest amounting to Rs7.73Crs.

At present HESCOM has to make payment of Rs. **150.70 Crs** to various Generators on account of orders of the Hon'ble Commission and the Hon'ble APTEL.

Hence the HESCOM is requesting the Commission:

- 1) To issue the Orders directing the HESCOM to make payment of the additional cost on account of orders of the Hon'ble Commission / the Hon'ble APTEL and any Courts as per Annexure C in installments, in FY-24 after the same is pass through in the Tariff Order 2023.
- 2) To issue the Orders in future, directing the HESCOM to make payment of the additional cost on account of orders of the Hon'ble Commission in installments, after the same is pass through in the Tariff Order of that particular year.

**OR**

To issue the Orders in future, directing the HESCOM to make payment of the additional cost on account of orders of the Hon'ble Commission in installments and to file petition before the Hon'ble Commission every quarter on par with FAC claim as per FAC Regulations for the



additional cost on account of orders of the Hon'ble Commission / the Hon'ble APTEL and any Courts to be included in the tariff.

## 2. **LPS Payment.**

The delayed payment of power purchase bills to Power Generators attracts 1.5% to 2% interest as late payment charges as per the provisions of the PPA. As explained earlier, the HESCOM was not in a position to immediately make power purchase payments on account of orders of the Hon'ble Commission and the Hon'ble APTEL as the additional burden is not a pass through in the tariff, resulting delay in power purchase payments.

Ministry of power (MoP), GoI, has issued Notification namely "Electricity (Late Payment Surcharge and Related Matters Rules 2022, vide dtd. 03.06.2022. These Rules are applicable to the outstanding dues of the Generating Companies, Inter-state Transmission licensees and Electricity Trading Licensees. MoP has allowed the payment of outstanding dues (Principal and LPS) in equated monthly installments and the installments will become due on 5 th of every month. HESCOM is making LPS as per the said Notification.

Further the Government is also not paying any interest for the delay in releasing the subsidy. The GOK is not releasing the subsidy as per the IP Set subsidy approved in the Tariff Order. The GOK is restricting the subsidy to the amount allocated in the annual budget and HESCOM is experiencing Working Capital shortfall and resulted in accumulation of power purchase bills payable to Generators and interest on belated payment.

Further, the company is having accumulated losses of Rs.6,421.87 Crs as at the end of 2021-22 resulting in negative net worth of the company. This has severely impacted the credit rating and debt-equity ratio of the company. In case the Late Payment Surcharge (LPS) is not passed on to the consumer in the tariff by the Hon'ble Commission, the Company's accumulated losses will further shoot up.

**For the above stated reasons, the Hon'ble Commission is requested to allow LPS Payment to generators to help HESCOM to tide over the cash crunch problem.**

## 3 **HESCOM proposal for arriving CDT for IP Sets and LT6 Category Installations:**

The Hon'ble Commission is fixing the average cost of supply as the CDT for BJ/KJ installations. The Hon'ble Commission is also calculating the cost of supply to IP sets (below 10 HP) considering the average cost of supply, but the CDT for IP sets is determined deducting the Cross subsidy from other than IP & BJ/KJ Installations, i.e., the tariff higher than the average cost of supply being fixed to non-subsidized categories and lower tariff for IP sets (below 10 HP). To avoid this discrimination between subsidized and non-subsidized categories, HESCOM proposes to fix CDT for IP Sets to recover the average cost of supply as in case of BJ/KJ installations. HESCOM also proposes to fix the average cost of supply as the CDT for LT 6





category. This will reduce the cross-subsidy and HT consumers may not opt for open access. This will also reduce the burden on the consumers of other categories particularly domestic category

#### 4. Recovery of Fixed Charges in the Electricity Bills

Although retail power tariff is based on two-part tariff principles, the same is not reflective of actual components of fixed and variable cost being incurred by HESCOM.

The details of the approved/actual fixed cost and variable cost for FY 2020-21 and FY 2021-22 , proposed fixed cost and variable cost for FY 2023-24 is tabulated below:

Sl No	Particulars	2020-21		2021-22		2023-24
		Approved in ARR	Actual in APR	Approved in ARR	Actual in APR	PROPOSED
1	Fixed Costs in Power Purchase cost including Transmission charges	2506.35	2890.02	3307.43	3356.17	2894.31
	<b>Distribution Costs of HESCOM</b>					
2	O & M Expenses	1180.93	1180.1	1379.23	1283.84	1536.19
3	Depreciation	260.05	254.09	285.66	304.91	362.67
4	Interest and Finance charges	542.36	1130	573.32	1004.35	774.57
5	RoE with MAT	0	0	0	0	0
6	Consumer Education Fund	0.5	0.14	0.5	0.41	0.5
7	Other debts/prior period credits		-122.04		-4.99	67.78
8	Less : Other Income	-285.66	-283.64	-290.07	-302.36	-431.43
9	Previous year's surplus/deficit carried forward to next year	401.22	0	-617.95	0	0
10	Regulatory Asset	0	0	144.07	0	0
11	Total Fixed Cost in the ARR	4605.75	5048.67	4782.19	5294.32	5204.59
12	ARR.	9382.86	9182.15	9519.6	10895.17	10020.08
13	Variable cost of Power Purchase cost.	4777.11	4133.48	4737.41	5252.84	4815.49
14	Recovery allowed in Demand / fixed Charges (as per D21)	968.34	788.07	1373.33	958.54	1664.85
15	Recovery of FC over Fixed cost in %	<b>21.02%</b>	<b>15.61%</b>	<b>28.72%</b>	<b>16.99%</b>	<b>31.99%</b>
16	Recovery of F C over Fixed Costs in Power Purchase cost	<b>38.64%</b>	<b>27.27%</b>	<b>41.52%</b>	<b>28.56%</b>	<b>57.52%</b>

From the above data it is observed that the actual recovery of FC over Fixed cost is only 15.61% as against the approved 21.02% for FY 2020-21 and the actual recovery of FC over Fixed cost is only 16.99 % as against the approved 28.72% for FY 2021-22.



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Breakup of fixed/demand charges and Energy charges received for FY-22 is tabulated below:

(Cost in Rs. Crs.)

FY-22			
Particulars	Fixed/ Demand charges in Crs	Energy charges	Total
LT-Consumers	607.87	6657.62	7265.49
HT-Consumers	350.67	1169.39	1520.06
Misc.		145.90	145.90
<b>Total</b>	<b>958.54</b>	<b>7972.91</b>	<b>8931.45</b>
<b>Percentage</b>	<b>10.73%</b>	<b>89.27%</b>	<b>100%</b>

Since the contribution of fixed charges is only 10.73 % of the average realization rate the balance i.e. 89.27% is concealed in the energy charges, the energy charge seems to be on a higher side. This composition of cost recovery also has an impact on cross subsidy amount.

In order to reflect the actual share of fixed cost in the revenue requirement of Distribution licensees, there is need to enhance recovery through fixed charges and **HESCOM concurs to the proposal of increasing the recovery of fixed charges proposed by Hon'ble KERC vide Ltr. No: Letter No.KERC/DD(Tariff)/FTS-1111/1029 dtd. 29.09.2022, increasing the recovery of fixed charges in a phased manner, in a time frame of three years, in such a way that the Recovery of FC over Fixed cost in the ARR is increased to 50% in the 1<sup>st</sup> year and 75 % in the 2<sup>nd</sup> year and 100% in the 3<sup>rd</sup> year.**

HESCOM proposes to recover **31.99%** FC (Recovery of Demand / fixed Charges in revenue) over total Fixed cost of ARR of FY-24 and **57.52%** F C over Power Purchase Fixed Costs in ARR for FY-24.

**5. Increase of Demand charges for HT consumers opting for open access in the current year (New open access consumers)**

If there is any reduction in sales under HT category, the loss on account of fixed charges is at the larger extent and this will further worsen the cross subsidy level.

In order to reflect the actual share of fixed cost in the revenue requirement of Distribution licensees, there is need to enhance recovery through fixed charges and separate tariff for HT consumers opting for open access in the current year (New open access consumers).

Hence, it is proposed to **fix the separate tariff for the HT consumers opting for open access in the current year (New open access consumers) at higher rate of demand charges to increase the composition of fixed cost in the HT revenue.**



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**6. Approval of proposed Revenue considering the category wise actual Average Realization**

It is observed that in the Tariff Order 2022, the approved revenue of the HESCOM for FY-23, is Rs.9,617.33 Crores as against the proposed revenue of the HESCOM at Rs.8,970.17 Crores., thereby the revenue is increased by Rs. 647.16 Crores. Following tables show the major variation in some of the categories, in Approved Revenue for FY-23 compared to the Actuals of APR of FY-21 and Actuals of APR of FY-22 (Up to Sept-22), considering actual Average Realisation Rate.

Comparison of Approved Consumption, Revenue and Average Realisation Rate for FY-23 with the Actuals of APR of FY-21												
Sl.No	Category	As per Actual - FY -21			Proposed by HESCOM			Approved by KERC			Difference	
		Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs
	a	b	c	d=(c/b)	E	f	g=(f/e)	h	i	j=(i/h)	k=(e-h)	l=(f-i)
1	LT 2(a)	1638.55	1035.32	6.32	1772.99	1184.6	6.68	1772.99	1706.2	9.62	0	-521.6
2	LT 3	462.51	468.12	10.12	518.11	547.08	10.56	576.54	701.59	12.17	-58.43	-154.51
3	LT 5	311.1	260.33	8.37	327.05	303.85	9.29	321.63	374.45	11.64	5.42	-70.6

Comparison of Approved Consumption, Revenue and Average Realization Rate for FY-23 with the Actuals of FY-23 (Upto Sept-22)							
Sl.No	Category	Approved by KERC for FY-23			As per Actual - FY -23 (up to Sept-22)		
		Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit
	a	b	c	d=(c/b)	e	f	g=(f/e)
1	LT 2(a)	1772.99	1706.2	9.62	894.41	668.66	7.48
2	LT 3	576.54	701.59	12.17	298.11	328.56	11.02
3	LT 5	321.63	374.45	11.64	171.61	169.92	9.90



Approved Average Realization of LT 2(a) category for FY-23 is Rs. 9.62/unit, but the actual Average Realization for FY-23 (up to Sept-22) is only Rs. 7.48/unit.

Approved Average Realization of LT 3 category for FY-23 is Rs. 12.17/unit, but the actual Average Realization for FY-23 (up to Sept-22) is only Rs. 11.02/unit.

Approved Average Realization of LT 5 category for FY-23 is Rs. 11.64/unit, but the actual Average Realization for FY-23 (up to Sept-22) is only Rs. 9.90/unit.

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It is to be noted that the HESCOM has proposed sale of 1772.99 MU under LT 2(a) Category and the KERC has approved the same, whereas the approved revenue was Rs. 1706.15 Crores for the sale of 1772.99 MU.

Therefore, overall the net gap was reduced by 647.16 Crores. As a result of which the revenue requirements of the HESCOM have been suppressed on account of the above. Increase of revenue for domestic category is against to the cross subsidy mechanism which was envisaged to support consumer categories with low capacity to pay i.e., domestic consumers.

Comparison of approved consumption and revenue in ARR with the actual as per APR for the previous years in LT2(a) Category is tabulated as below:

Comparison of Approved ARR with APR in LT2(a) Category								
FY	Approved ARR			APR			Difference	
	Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs	Average Realisation Rate in Rs/Unit	Consumption in MU	Revenue in Crs
FY-19	1545.67	1018.30	6.59	1443.89	830.79	5.75	101.78	187.54
FY-20	1549.40	1069.26	6.90	1512.23	957.14	6.33	37.17	112.12
FY-21	1556.28	1323.71	8.51	1638.55	1035.32	6.32	-82.27	288.39
FY-22	1694.55	1560.00	9.21	1636.12	1155.57	7.06	58.43	404.43

From the above data it is observed that the approved Average realization rate in ARR is on higher side compared to the actual Average realization rate as per APR. Increase in revenue projection in domestic category of ARR has an impact on cross subsidy amount and also the net gap was reduced to that extent.

Hence HESCOM is requesting to allow the projected revenue for FY-24, considering the category wise actual Average Realization Rate in Rs/Unit of the previous years, which is in any event subject to truing up at the end of the year.

## 7. Applicability of Tariff category to Transformer Repair Centre

HESCOM is billing the Transformer Repair Centres applying LT3 tariff, as the "Service Stations" are categorized under LT3 Tariff. NGEF is frequently requesting HESCOM to bill the installation of transformer repair centre situated in KPTCL Compound, Nehrunagar, Belagavi under LT 5 category as the same is a Government of Karnataka Enterprise and repairing the transformers of HESCOM only. Other private Transformer Repair Centres are also requesting to categorize private Transformer Repair Centres under LT5 Category as they are repairing the transformers of HESCOM only and not for commercial purpose.

The private Transformer Repair Centres are awarded by calling tenders and if the LT5 tariff is applied instead of LT3 tariff, the quoted rate will be reduced, more bidders will participate in





the tenders, efficiency will be increased and the transformer repair cost will be reduced. This will benefit both the Company and also the consumers.

Hence HESCOM proposes to categorize transformer Repair Centres under LT5 Category.

**8. Rationalization/simplification of tariff categories:**

Currently the tariff structure is very complex with various categories and sub-categories of power consumers. Simplification of tariff make electricity billing more efficient and transparent by reducing the number of categories of consumers, which should improve tariff collection and improve the health of ESCOMs.

HESCOM is proposing the following changes in the tariff categorization for rationalization/simplification of tariff categories:

- a. Merger of following urban and rural tariff categories **with a rebate of 50 paise/unit for rural consumers**
  - a) LT2 (a)(i) & LT2(a)(ii) to LT2(a),
  - b) LT2(b)(i) & LT2(b)(ii) to LT2(b),
  - c) LT3 (i) & LT3 (ii) to LT3,
  - d) LT5(a) & LT5(b) to LT5.
- b. Merger of HT-3a(ii) and HT-3a(iii) to HT-3a(ii)
- c. Merger of Energy Rate slabs in HT2 (a), HT2 (b) and HT2(c) to single slab.
- d. Reclassification of LT-5 (a) and (b) Tariff fixed charges as below:

**Existing**

Details	Particulars
<b>Fixed Charges per Month</b>	i) for 5 HP & below ii) for above 5 HP & below 40 HP iii) for 40 HP & above but below 67 HP iv) for 67 HP & above but below 100 HP v) for 100 HP & above



**Proposed:**

Details	Particulars
Fixed Charges per month	i) for 40 HP & below ii) for above 41 HP to 100 HP iii) for 100 HP & above

e. **Simplification of tariff structure of domestic category:**

In order to simplify the tariff structure of Domestic category consumers and to rationalize tariff for consumers with higher consumption, the HESCOM hereby proposes to introduce Non-telescopic tariff in domestic category. **Under non-telescopic tariff structure, the energy consumed is cumulatively billed at one uniform rate for the entire consumption depending on the slab rate in which the consumption falls.**

Sl No	Tariff	EXISTING SLAB	PROPOSED SLAB	Remarks
1	LT-2(a)(i) and LT2(a)(ii)			
		First 50 units	0-50 units	Non-Telescopic
		Next 50 units	0-100 units	
		Next 100	Above 100 units	
		> 200 units		

f. **LT-7(b)** tariff activities such as Hoardings & Advertisement boards, Bus Shelters with Advertising Boards, Private Advertising Posts / Sign boards in the interest of public such as Police Canopy Direction boards, and other sign boards sponsored by Private Advertising Agencies /firms on permanent connection basis may be shifted/classified under LT-3 tariff category **at 1.5 times the existing tariff**, as the activities are commercial in nature.

g. **Monthly billing**

HESCOM proposes for monthly billing in case of Temporary tariff LT 7 (a) and also HT3 (a) and HT 3(b) to bring uniformity in the periodicity of billing and also to avoid data anomalies during Energy Audit.

h. Gaushala activity without any commercial purpose to be included in LT-2a tariff.

i. Animal husbandry activity to be included in LT-5 tariff.



9. **Discounted Rate Energy Scheme:**

Hon'ble Commission in its Tariff Order 2021, dated 09.06.2021 had introduced Discounted Energy rate Scheme for HT consumers in an attempt to bring back the EHT/HT consumers who are availing power through open access as the State has power surplus situation. In the KERC letter dated 05.01.2022 Commission has extended the scheme for a further period of 3 months. In the Tariff Order-2022, dated 04.04.2022 Commission decided to continue the DERS for the entire period during FY-23 in all the ESCOMs, as per the terms and conditions as in the Tariff Order-2021.



As per the KERC letter dated 03.08.2021, KERC has relaxed the scheme for HT consumers who have already entered into a long-term Open Access (OA) agreement. In order to avail this scheme, HT consumers have to give an undertaking for the balance quantum of energy that they'll not enter into any further OA agreement with the generators, during the period of operation of the scheme.

As per the KERC letter dated 08.07.2022, KERC has exempted any increase/decrease in FAC approved by the Commission for the consumption over and above the base consumption under DERS scheme. However, FAC is applicable up to the base consumption for the DERS consumers.

At the end of September-2022, 63 numbers of HT/EHT Consumers have opted for the Scheme.

The statistics are as below:

Month	No. of Consumers	Base consumption in MU	Consumption above the Base in MU	Actual Consumption in MU
FY-22	54	26.54	15.59	34.34
FY-23 (As on Sep-2022)	63	35.51	36.54	62.81

Considering all the above facts, Hon'ble Commission is requested to continue the Discounted Energy Rate Scheme for a further period of one year with an increase in the discounted rate by 50 paise i.e, discounted rate of Rs.6.50 per unit over the base consumption.

#### **10.Special Incentive Scheme:**

Hon'ble Commission in its Tariff Order 2021, dtd 04.04.2022 had decided to continue the HT incentive scheme for one year with effective from 01.04.2022 for FY-23 in an attempt to bring back the EHT/HT consumers who are availing power through open access.

In the said incentive scheme, rebate of Rs.1/unit for the consumption over and above the base consumption during 10:00 hrs to 18:00 hrs and rebate of Rs.2/unit during 22:00 hrs to 06:00 hrs is extended. Further, during 10:00 hrs to 18:00 hrs if the SIS consumer's consumption during 10:00 hrs to 18:00 hrs does not exceed the base consumption, still rebate of Rs.2/unit is extended during 22:00 hrs to 06:00 hrs.

At the end of September-2022, only 42 HT Consumers have opted for Special Incentive Scheme. Consumption above the Base units between 10.00 to 18.00 hrs is only 3.28 MU for FY-22.

DERS Scheme is better compared to Special Incentive Scheme as the consumption over the base is more in DERS. As per terms and conditions of DERS Scheme, the HT consumers who have opted for DERS Scheme shall not be eligible Special Incentive Scheme. Hence HESCOM proposes for



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discontinuation of Special Incentive Scheme, so that the existing consumers under Special Incentive Scheme may opt DERS Scheme.

## II. Time of Day (ToD) tariff to all HT consumers:

The Commission has made ToD Tariff mandatory for HT-1/HT-2a/HT-2b/HT-2c consumers above 500kVA.

The ToD tariff is aimed at optimizing the cost of power purchase, which constitutes over 80% of the tariff charged from the consumers. It also assumes importance in the context of propagating and implementing DSM and achieving energy efficiency. This is important in HESCOM situation where wide variations in load especially in summer causes problem of shortages during Peak hours and surplus during off peak hours.

HESCOM's analysis on the above subject is as follows:

- HESCOM's load during 6 am to 10 am varies from 1650 MW to 2500 MW
- The solar power will be available only after 9 am up to 4.30 pm
- Due to lack of solar power generation during 6 am to 8.30 am and in the evening 6 pm to 10 pm, SLDC had instructed HESCOM to shift Irrigation pump set loads during this period.
- During 6 am to 10 am, the domestic load will be added. If the load is catered to industries during the said morning hours, domestic consumers will be affected.
- The wind generation will be available only in the months from July to October.

The peak load details from the past years are shown in the below table:

Year	Peak Load in MWs	Date	Time
2012-13	2012-13	1817	03.06.2012
2013-14	2013-14	1804	24.03.2014
2014-15	2014-15	1822	29.03.2015
2015-16	2015-16	1861	02.11.2015
2016-17	2016-17	1981	24.03.2017
2017-18	2017-18	2415	23.03.2018
2018-19	2018-19	2401	29.03.2019
2019-20	2019-20	2536	29.02.2020
2020-21	2020-21	2856	24.03.2021
2021-22	2021-22	2872	07.04.2021



- Morning peak from 6:00 hrs to 10:00 hrs was introduced during FY-18



- Morning peak from 6:00 hrs to 10:00 hrs was removed during FY-21 by KERC to increase HT sales during morning hours.

Framework for *implementation* of TOD tariff various legislative and legal frameworks existing in the country which promote implementation of TOD as an important DSM tool are:

### **Electricity Act**

The relevant provision of Section 62(3) of the Act which guides the SERCs to incorporate TOD tariff is:

*"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."*

### **National Tariff Policy**

The relevant provisions of the National Tariff Policy, which define the tariff components and their applicability states as under:

*"8.4 Definition of tariff components and their applicability 1. Two-part tariffs featuring separate fixed and variable charges and Time differentiated tariff shall be introduced on priority for large consumers (say, consumers with demand exceeding 1 MW) within one year. This would also help in flattening the peak and implementing various energy conservation measures."*

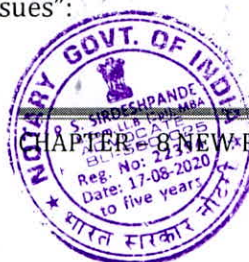
### **National Electricity Policy**

The relevant provision of the National Electricity Policy with respect to encouraging metering for TOD is:

*"5.4.9 The Act required all consumers to be metered within two years. The SERCs may obtain from the Distribution Licenses their metering plans, approve these, and monitor the same. The SERCs should encourage use of pre-paid meters. In the first instance, TOD meters for large consumers with a minimum load of one MVA are also to be encouraged. The SERCs should also put in place independent third-party meter testing arrangements"*

### **FOR recommendations**

FOR has also given the following recommendations in its Working Group Report on "Metering Issues":



CHAPTER 8 NEW PROPOSAL

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*"Time of the day metering is important while propagating and implementing Demand Side Management (DSM) and achieving energy efficiency. Hence, TOD metering and automatic meter reading system should be introduced wherever it has not already been done. High-end consumers with the connected load of 25KW and above should be covered under TOD metering."*

### **CEA regulations**

Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 have stated the following with respect TOD metering:

*"20. Adoption of new technologies - The distribution licensee shall make out a plan for introduction and adoption of new technologies such as pre-paid meters, time of the day meters (TOD), automatic remote meter reading system through appropriate communication system with the approval of the Appropriate Commission or as per the regulations or directions of the Appropriate Commission or pursuant to the reforms programme of the Appropriate Government."*

### **TOD Tariff & load factor improvement:**

The system load factor of distribution utility gives an important indication as to how efficiently it caters to the demand of its consumers. The load factor is defined as the ratio between the average demand and the peak demand for a given period of time. A higher load factor is desirable as this implies that the average power generation is closer to the maximum demand of consumers, denoting a higher operational efficiency of power plants. This also means that plant fixed costs may be spread over larger number of generated units, thereby giving a lower cost per unit.

Another incentive to reduce the gap between the peak and average demand is the increasing marginal costs of generation with increase in demand. Since as per Merit Order dispatch, plants with higher costs are dispatched to meet the demand over the average, the higher the peak-load of the system, the higher is the cost of electricity. Further, by reducing the peak load, the fixed cost of meeting a given demand can be lowered, as any increase in demand can be accommodated without additional investments in new generation capacities. Also, security of supply can be increased without additional cost.

Thus the relationship between TOD tariff and improving the load factor is quite apparent. By charging different tariff at peak and off-peak periods according to marginal cost, customers are incentivized to shift their loads to off-peak hours, thereby reducing the overall system peak demand and improving the system load factor.

  
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**Peak Recorded (as per SCADA) and Consumptions in HESCOM  
for FY 2022-23 is shown in the below table:**

Month	Peak Load in MW	Date and Time	Energy Consumption in Mus	Average Consumption in MUs	Average Demand in MW	Average Morning Demand 6:00-11:00 hrs	Average Evening Demand 18:00-23:00 hrs
April-22	2955	04.04.2022@11:58	1439.12	47.97	1999	1975	1511
May-22	2676	03.05.2022@10:56	1343.54	43.34	1806	1825	1446
June-22	2337	02.06.2022@11:10	1258.45	41.95	1748	1794	1307
July-22	2490	02.07.2022@18:28	1030.08	33.23	1385	1457	1059
Aug-22	1998	24.08.2022@13:26	1016.22	32.78	1366	1371	1077
Sept-22	2351	29.09.2022@10:54	956.89	31.90	1329	1333	1044

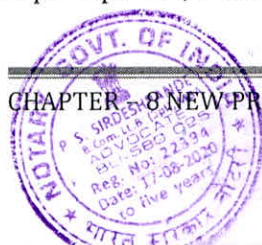
The load factor of the Average Morning Demand 6:00-11:00 hrs to peak load is approximately 67% and the load factor of the Average Evening Demand 18:00 to 23:00 Hrs to peak load is approximately 51%.

The TOD details for HT-1, HT2 (a), HT2(b), HT2(c) for Apr-22 to Sep-22 is depicted in the table below:

Tariff	No. of consumers	06:00 to 10:00 hrs	10:00 to 18:00 hrs	18:00 to 22:00 hrs	22:00 to 06:00 hrs	Total
HT-1	13	7.33	0.61	1.18	0.59	9.71
HT-2a	335	524.98	72.38	236.84	72.98	907.18
HT-2b	52	16.4	1.88	5.53	2.51	26.32
HT-2c(i)	8	5.09	0.89	2.02	0.83	8.83
HT-2c(ii)	1	2.29	0.34	0.92	0.37	3.92
<b>Total</b>	<b>409</b>	<b>556.09</b>	<b>76.1</b>	<b>246.49</b>	<b>77.28</b>	<b>955.96</b>

**Rationality of ToD tariff proposals and fixation of TOD slots and tariff applicable for each slot:**

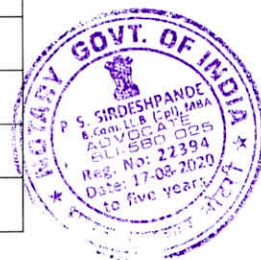
Seven months in the Financial Year, i.e., Dec, Jan, Feb, Mar, April, May and June have been considered as falling under high demand period and the balance 5 months (July-Aug, Sept, Oct and Nov) in the FY as low demand period. In the present ToD tariff the day has been divided into three blocks with 4 hours as peak period, 8 hours as off-peak period and 12 hours as normal period. HESCOM's proposal



is to divide the day into blocks with 8 hours as peak period, 11 hours as off-peak period, and 5 hours as a normal period. The rebate in tariff for off peak period consumption has been proposed at the same rate across all the high and low demand periods whereas the additional per unit rate for consumption during peak periods in high demand periods has been proposed at double the tariff in the low demand period. The ToD tariff system, in addition to benefiting all the HT consumers by passing on the low cost power during off-peak/low demand periods, will also aid in the flattening of the load curve with the shifting of some part of the demand from peak periods to off-peak periods which in turn will address the problems of intermittency of renewable energy and grid management to some extent. Indisputably, the power rates in the exchanges are higher during high demand periods and lower during the low demand periods. As per the estimates of the Commission, there will be a shortage of power for the DISCOMs to meet their energy requirement during the high demand period. Therefore, market/exchange purchases are inevitable for which the DISCOMs are likely to incur high costs slab.

- The State is trading maximum power during 00-00 - 05:00 Hrs & 09:00 - 16:00 Hrs (Solar) and during monsoon season (between June to Sept).
- The details of maximum traded quantum during the above said time blocks of FY 2021-22 is as tabulated below:

Month	Max Traded Quantum in MW	
	00:00 - 05:00	09:00 - 16:00
Apr-21	1000	1600
May-21	1140	2660
Jun-21	1173	2547
Jul-21	3215	5253
Aug-21	3086	3903
Sep-21	2923	3815
Oct-21	3321	3940
Nov-21	2346	3690
Dec-21	2509	3812
Jan-22	2021	2208
Feb-22	0	200
Mar-22	1035	1721





On a random examination of the time block wise exchange sales by the ESCOMs during all the months of the last year FY-22, maximum trade is between 9:00 a.m to 4:00 p.m when there is solar generation and also between 0:00 hrs to 5:00 hrs when demand is less.

Time of Day	IP load (%)
0600 to 1000 hours	12%
1000 to 1800 hours	51%
1800 to 2200 hours	6%
2200 to 0600 hours	31%



HESCOM is catering to 61% of the IP load during the day time. Also SLDC is able to sell excess energy during the normal hours of the day.

The proposal of HESCOM is to divide a day into peak, off-peak, and normal periods to match with the reality. It is also a fact that about 3500 MW of solar power is available only during the daytime between 9 AM and 4 PM, and there is a need to align the demand to match with the daytime load in order to avoid backing down of other approved thermal sources to accommodate generation from the must-run solar power plants. Further, the maximum generation from wind power is about 1400 MW which occurs during the July to September period.

In view of such divergent sources of power as above, which are largely intermittent in nature and have must-run status as per the regulations in vogue due to their environmental friendliness, there is a need to align the demand with the generation available from wind and solar sources for smoother operation of the grid and optimization of power purchase costs which can be passed on to the consumers by way of a reduction in tariffs.

The HT consumers which require constant power throughout the day may not be in a position to shift part of their loads to nighttime in order to benefit from off-peak TOD tariffs. With the extension of the present off-peak ToD period during the daytime, the impact of the proposed peak ToD tariffs on the above type of consumers will be significantly reduced. However, at the same time, a vast majority of the HT consumers will be able to align their demand with the revised ToD slots to derive maximum benefit from ToD tariffs. As such, the ToD tariff system can be seen as a demand side management tool. The ToD tariff proposal of the BESCO is in line with the Andhra Pradesh ToD tariff and is reasonably revenue neutral:

The Ministry of Power notified the Green Open Access Rules, 2022 in which it has reduced the open access transactions limit from 1 MW to 100 kW for green energy to enable small consumers to purchase renewable power through open access.

By lowering the threshold for open access from the existing 1 MW to 100 KW, the Government has opened up the door for this market to multiply multi-fold in the coming few years.

The proposals are made for encouraging HT consumption during day time to match surplus solar power/power available at lower market prices during the daytime, and for slightly discouraging consumptions during peak time slots. The existing and proposed modifications in ToD are given below:

**Existing ToD Tariff (in Rs./kWh)**

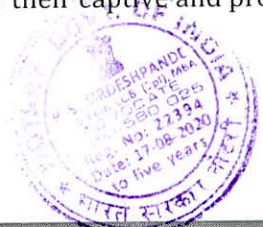
Time of Day	July to Nov	Dec to June
0600 to 1000 hours	0	0
1000 to 1800 hours	0	0
1800 to 2200 hours	0	1
2200 to 0600 hours	0	-1

**Proposed TOD Tariffs (in Rs./kWh)**

Time of Day		Dec to June	July to Nov
		(rebate/penalty in addition to the base tariff, Rs. per unit)	
06-10	Peak	1.5	1
10-15	Off-peak	-0.75	-0.75
15-18	Normal	0	0
18-22	Peak	1.5	1
22-24	Normal	0	0
24-06	Off-Peak	-0.75	-0.75

**III. Parallel Operation Charges/Grid Support Charges proposal for captive power plants:**

The Parallel Operation is defined as activity where one electrical system operates with the connectivity to another system in similar operating conditions. The CPPs opt for parallel operation to seek safety, security and reliability of operation with the support of a much larger and stable system as afforded by the grid. Captive Power Plants that are running in parallel with grid are continuously taking the support of grid for their captive and process operations.





### **Advantages to CPPs:**

1. The fluctuations in the load are absorbed by the utility grid in the parallel operation mode. This will reduce the stresses on the captive generator and equipment. The bulk consumer can operate his generating units at constant power generation mode irrespective of his load cycle.
2. Fluctuating loads of the industries connected in parallel with the grid inject harmonics into the grid. The current harmonics absorbed by the utility grid is much more than that by CPP generator. These harmonics flowing in the grid system are harmful to the equipment and are also responsible for polluting the power quality of the system.
3. Negative phase sequence current is generated by unbalance loads. The magnitude of negative phase sequence current is much higher at the point of common coupling than at generator output terminal. This unbalance current normally creates problem of overheating of the generators and other equipment of CPP, if not running in parallel with grid. When they are connected to the grid, the negative phase sequence current flows into the grid and reduces stress on the captive generator.
4. Captive power plants have higher fault level support when they are running in parallel with the grid supply. Because of the higher fault level, the voltage drop at load terminal is less when connected with the grid.
5. On account of increase in plant load factor of captive generator, additional revenues can be generated by the CPPs by sale of surplus power to the utility.
6. In case of fault in a CPP generating unit or other equipment, bulk consumers can draw the required power from the grid and can save their production loss.
7. The grid provides stability to the plant to start heavy loads like HT motors.
8. The variation in the voltage and frequency at the time of starting large motors and heavy loads, is minimized in the industry, as the grid supply acts as an infinite bus. The active and reactive power demand due to sudden and fluctuating load is not recorded in the meter.
9. The impact created by sudden load throw off and consequent tripping of CPP generator on over speeding is avoided with the grid taking care of the impact.
10. The transient surges reduce the life of equipment of the CPP. In some cases, the equipment fails if transient is beyond a limit. If the system is connected to the grid, it absorbs the transient load. Hence, grid enhances the life of CPP equipment.



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## Disadvantages of Parallel Operation to Utility

1. Load fluctuations of captive consumer are passed on to the utility's system thereby the efficiency of utility's system may be affected, which may also impact on utility's other consumers.
2. In case of an ungrounded (or grounded through resistance) system supply, fault on interconnecting line (consumer's side) results in interruption of system. For single phase to ground fault which are 80 to 85% of the short circuit fault level, the grounding of the system is achieved through the neutral or step down transformer of the utility, when the generator runs in parallel with the utility's grid. This supply is likely to cause damage to the terminal equipment at utility's sub- stations and line insulators, as voltage on the other two healthy phases rise beyond the limit, under such conditions.
3. The utility has to sustain the impact of highly fluctuating peak loads like that of arc furnace, rolling mill, etc. for which it does not get any return on the capital invested to create system reserve.
4. The variation in reactive power requirement increases the system losses and lowering of the voltage profile. Utility has to bear the cost of such effects.
5. The lower voltage profile and fluctuations affect the service to the neighboring consumers due to deterioration in quality of supply, thus resulting in revenue loss to the utility.
6. Non-recording of high fluctuating / sudden active and reactive demand by the meter results in financial losses."

At present Grid Support Charges/Parallel operation charges are being levied on Captive Generators in the states of Gujarat, Chattisgarh, Madhya Pradesh and Tamil Nadu. Further, Discoms of Odisha and Rajasthan have filed petitions under their respective ERCs in this regard. The applicability and charges of the Grid Support Charges/Parallel Operation Charges in various states are as follows:

### 1. Gujarat:

The parallel operation charge @ Rs. 26.50 per KVA per month is being collected from the in house captive plants for their entire captive generation capacity ever since they were introduced in the tariff order for FY 2010-11 and they are not revised since then. The extract of the methodology of the said charges while determining them is as follows:

Consumers having CPPs and connected with the grid shall have to pay POC. At present the consumers and open access users connected to the grid, consisting of interconnected transmission lines, S/S generating system, bear the transmission charges. The CPPs with connected load also enjoy the benefits of services of system operation from transmission licensees and distribution licensees.





Hence, CPPs should pay POC, which would be shared by the STU and the distribution licensee concerned.

In the base MVA support method, the Commission is of the view that the parallel operation charge has to be related to the fixed costs of the utilities. According to the tariff orders issues by the Commission for FY 2010-11 the transmission related fixed cost is Rs.1172Cr and distribution related fixed cost (upto 11kV) for all the distribution licensees is Rs.625.95Crores. The total connected load in the system is 28275.29MVA. The transmission related fixed cost as Rs/kVA of connected load works out to be Rs.34.54/kVA/month and distribution related fixed cost (upto 11kV) works out to be Rs.18.45/kVA/month. Thus, the total fixed cost of transmission and distribution systems works out to Rs. 53.09 KVA/month. The Parallel Operation Charge thus received from CPP shall be shared between the transmission and distribution systems in proportionate of their fixed cost which is at present in the ratio of 2:1. Considering the Pari passu it is proposed to levy 50% of the transmission and distribution related fixed costs on the CPP. Accordingly, the Commission decides that the POC should be levied at Rs. 26.50 per KVA per month for the installed capacity of the CPP.

Abstract from GERC Order dated 25th June 2004 on POC:

"5. Grid Support Services for Parallel Operation Explanatory notes on technical issues):

Components of Grid and Parallel Operation:

The grid comprises three major components namely power generating stations along with step-up power transformers, high voltage and extra high voltage transmission lines (66 KV and above) and distribution lines generally below 66 KV voltage level. The distribution lines are further divided into high tension (HT) 11 KV to 66 KV) and low tension (LT) (below 11 KV). Different types of consumers are connected to these distribution networks and are accordingly termed as HT & LT consumers. The CPPs running in parallel with the grid are connected at 66 KV level. There are other types of HT consumers who are not running in parallel with the grid but are also connected with it at 66 KV. While such consumers can be disconnected by GEB to control grid operation parameters in accordance with the grid standards, the consumers operating in parallel with the grid cannot be disconnected."



## 2. Tamilnadu:

In the Tamilnadu, the grid supporting charges are being levied on the in-house captive generators since 2014. Those charges are synonymously labelled as Parallel operating charges. However, the rationale for fixing the charges has not been explained by the commission. The extract of the said charges given by the Hon'ble TNERC in Para No:26 of its Open access regulations 2014 is reproduced as below:

Parallel Operation charges: Captive Generating Plant who opt for parallel operation of the generator with licensee (without availing open access) for safe and secure operation of the generator has to pay Parallel Operation charges every month as notified by TNERC. As per these Regulations, parallel operation charges are to be paid for net capacity (i.e. installed capacity less than open access capacity) at the rate up to Rs.30,000/- per MW/month.

### 3. Chattisgarh:

Definition as per the Hon'ble CSERC order dated 13.10.2009 in order to define parallel operation. The relevant excerpt of the said order is provided below for reference.

"The parallel operation is any activity where one electrical system operates with the connectivity to another system in similar operating conditions. The Captive Power Plants (CPPs) opt for parallel operation to seek safety, security and reliability of operation with the support of a much larger and stable system as afforded by the grid."

#### Commission analysis:

"With backdrop of above regulatory developments and considering the experience gained by the Commission in due course while dealing the cases related to POC, the Commission is of opinion that only power consumed by industrial loads with co-located generating station should be charged POC because of the obvious reasons of the grid support taken by it.

It is to note that if the power is wheeled to industrial loads of the other State from the generating station in State, charges towards grid uses is paid and vice versa. Accordingly, power to the industrial loads catered through dedicated lines or through grids should not be charged POC because the charges towards grid uses such as transmission charges/wheeling charges in cash and kind is already levied."

In Chattisgarh, the Hon'ble Chattisgarh Electricity Regulatory Commission, in its tariff order for FY 2021-22, computed POC charges on the KWH basis @13 paise/kWh for both captive and non-captive units, earlier these charges were levied on the KVA basis @Rs.21/KVA/Month. The computation of the POC charges as mentioned in the Retail Tariff Order for FY 2021-22 is as follows:



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Sl.	Particulars	Units	Amount
1	<b>CSPTCL ARR for FY 2021-22</b>	<b>Rs. Crore</b>	<b>979.67</b>
2	Connected Load		
a	Central Sector Allocation (Net)	MW	2538
b	State Generation	MW	2985
c	Solar	MW	267
d	Hydro	MW	76
e	Biomass	MW	211
f	CPP/IPP	MW	2510
3	<b>Total Connected Load</b>	<b>MW</b>	<b>8586</b>
4	<b>Parallel Operation Charges (1) / (3)</b>	<b>paise/kWh</b>	<b>13.02</b>



#### 4. Madhya Pradesh

MPERC vide Sua Motu Petition No. 73/2012 on 31.12.2012 issued an order, fixing Rs. 20.00 per KVA per month on the capacity of the CPP (after deducting load pertaining to auxiliary consumption) connected to the grid. Since then, Discoms of MP are levying Parallel Operation Charges with the above said rate. Aggrieved by the above order, M/S Hindalco Industries Limited appealed against the Hon'ble MPERC in Hon'ble APTEL, requesting to dismiss the impugned order issued by the Hon'ble MPERC.

However, Hon'ble APTEL vide its judgement Dt: 02nd July 2021 issued an order asserting that such levy is justifiable, by stating as follows:

The view taken by the Commission is found to be a balanced one, it having decided to reduce the rate for POC from Rs 53.32 per KVA per month as recommended by the ERDA to Rs 20/- per KVA per month on the installed capacity of the Captive Power Plants expressly justifying this with reference to the objective to promote the CPPs, even deducting the load pertaining to the auxiliary consumption.

#### Abstract of Grid Support Charges/Parallel Operation Charges levied by various states in India:

Sl. No	State	Grid Support Charge Rate
1	Gujarat	Rs. 26.50 per KVA per month
2	Chattisgarh	Ps. 13.02 per kWh
3	Madhya Pradesh	Rs. 20.00 per KVA per month (Installed capacity of CPP (less load corresponding to auxillary consumption)*Rate of POC (Rs./kVA/month)
4	Tamilnadu	Rs.30 per kW per month on the installed capacity of CPP/ Co-generating plants (less the OA quantum) agreed upon with distribution

		licensee as per the EWA.
5	Maharashtra	Rs. 20 per KVA of the CMD per month
6	Andhra Pradesh	50% of the prevailing demand charge (applicable on the difference between the capacity of CPP in kVA and the contracted Maximum Demand in kVA with Licensee and all other sources of supply)
7	Odisha *	Rs.28.66/kVA/month

\*Petition filed by OPTCL before OERC for approval of POC charges

HESCOM has 51 Nos of captive consumers as on 31.03.2022 who are utilizing the HESCOM grid.

The computation of grid support charges/Parallel Operation Charges from the captive consumers of HESCOM is as tabulated below

Sl. No	Particulars	Units	Value
1	HESCOM ARR for FY 2023-24	Rs. Crs	12100.00
2	Connected Load		
a	Central Generating Station	MW	1,177.57
b	KPCL Hydel	MW	788.86
c	KPCL Thermal	MW	1017.65
d	UPCL	MW	231.65
e	NCE	MW	2,209.03
f	Jurala	MW	22.89
3	Total Connected Load	MW	<b>5,447.65</b>
4	<b>Parallel Operation Charges (1)/(3)</b>	<b>Paise/kWh</b>	253.55
5	Captive consumption for FY-22	MU	344.085
6	<b>Parallel Operation Charges at Rs. 2.74</b>	<b>Rs.Crs</b>	<b>87.24</b>

**Hence, HESCOM is proposing to collect Grid Support Charges/Parallel Operation Charges of 254 Paise/kWH from the captive consumers of HESCOM who are utilizing HESCOM grid.**

**a. Withdrawal of Solar rebate**

To encourage consumers to use environmentally friendly energy i.e. renewable energy and also to reduce the morning peak, solar rebate was introduced to domestic consumers who install solar water heater. It was presumed that, by installing the solar water heater, morning peak load will reduce, thus deferring the interest on that investment. That deferred interest was shared with the consumer as incentive.



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Now, the situation is entirely different,

- Distribution system is now strengthened and interest and depreciation on these investments are being passed through tariff.
- Government has notified mandatory installation of solar water heaters.
- Commission approved tariff for solar energy generation from Solar rooftop PV plants.
- Government of Karnataka is also providing subsidy for solar generation to an extent of 30%.
- The present slab rates after 200 units are more or less equal to Average cost of supply. Hence, consumers are voluntarily not only installing solar water heaters but also providing solar street light to their parks around their residential apartments and approaching HESCOM for extension of rebates to their premises on similar lines.

Under the above circumstances, the extension of solar rebate has become futile. Hence, Solar rebate is to be withdrawn.



**ATTESTED**

**NOTARY**

  
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**CHAPETR- 9**

**TARIFF REVISION PROPOSAL**

HESCOM has arrived at the revised Net Annual Revenue Requirement of Rs. **12,100.00** Crs for FY-24 as explained in previous paras. For the purpose of arriving at the revenue deficit for FY-24, HESCOM has considered the revenue at the tariff rates approved in Tariff Order-2022. The calculations of revenue projection for FY-24 with existing tariff and proposed tariff are shown in Format-D21.

**Revenue Gap for FY-24:**

Rs. in Crs.

SI No	Particulars	Amount
1	ARR for FY-24	10020.07
2	Add deficit for FY-22	1723.48
3	Add Carrying cost on deficit for FY-22 @ 15%	313.62
4	Add Carrying cost @ 15% on Power purchase liability paid on account of KERC/APTEL/Court Orders	42.83
5	Net ARR for FY-24	12100.00
6	ERC for FY-24 @ Current Tariff	10195.07
7	<b>Gap for FY-24 (5-6)</b>	<b>1904.93</b>

**BRIDGING THE REVENUE GAP :**

HESCOM proposes to bridge the Gap by Tariff revision for FY-24 as noted below and requests the Hon'ble Commission to consider the same.

**Hike requirement for all categories :**

- Total Gap - Rs. **1904.93** Crs.
- Sales - Total sales of 12,859.20 (MU)
- Hike required (a/b)- Average increase of **Rs. 1.48**/unit on total sales of 12,859.20 MU.

HESCOM is proposing recovery of additional revenue:

- Partly by increase in fixed charges per KW/HP/KVA per month, amounting to Rs. **263.07** Crs. for all categories as tabulated below:
- Partly by increase/decrease in Energy Charges, amounting to Rs. **1641.86** Crs. as tabulated below:



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<b>Fixed/Demand Charges</b>			
Tariff Category	Increase per HP/KW/KVA in Rs.	Increase in Revenue in Crs.	Remarks
All Categories	25	263.07	
Total amount in Crs.		<b>263.07</b>	
<b>Energy Charges</b>			
Tariff Category	Increase per unit in Rs.	Increase in Revenue in Crs.	Remarks
LT-1	1.10	16.58	Average cost of supply
LT-4(a)	2.26	1615.56	As explained in Chapter 8, New Proposal, HESCOM is proposing to fix the average cost of supply as CDT for IP Sets below 10 HP and LT6 Category.
LT-6(a)	1.75	40.76	
LT-6(b)	1.75	29.66	
Tariff Category	Decrease per unit in Rs.	Decrease in Revenue in Crs.	
All other Categories	(-) 0.10	(-) 60.70	
Total amount in Crs.		<b>1641.86</b>	
<b>Grand Total in Crs.</b>		<b>1904.93</b>	



On the basis of the above analogy, HESCOM has outlined the existing and proposed FC and per unit charges across all categories.

Tariff Category	Type of installation	Existing as per Tariff Order 2022		Proposed by HESCOM	
		Rs./unit		Rs./unit	
	Energy Charges & slabs	FC	EC	FC	EC
LT-1 : Applicable to installations serviced under BJ/KJ schemes	<b>Installations Serviced under BJ/KJ Scheme.</b>				
	<b>Energy Charges (Rs./Unit)</b>		8.31		9.41
	Subject to a monthly minimum per installation per month	70.00		95.00	
LT-2 (a) Applicable to Domestic lighting / Combined lighting, Heating & Motive power	<b>LT-2 a (i) Applicable to areas coming under City Municipal Corporations and Urban Local Bodies</b>				
	<b>Fixed Charges /month</b>				
	For the first KW	100.00			
	For every additional KW upto and inclusive of 50 KW	110.00			
	For every additional KW above 50 KW	175.00			
	<b>Energy Charges (Rs./Unit)</b>				
	For 1 to 50 units		4.10		
	For 51 to 100 units		5.60		
	For 101 to 200 units		7.15		
	For above 200 units		8.20		
	<b>LT-2 a (ii) Applicable to areas coming under Village Panchayth Area</b>				
<b>Fixed Charges /month</b>					
For the first KW		85.00			

	For every additional KW upto and inclusive of 50 KW	100.00		
	For every additional KW above 50 KW	160.00		
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 50 units		4.00	
	For 51 to 100 units		5.30	
	For 101 to 200 units		6.85	
	For above 200 units		7.70	
	<b>LT-2 (a) Applicable to all areas of HESCOM</b>			
	For the first KW			125.00
	For every additional KW upto and inclusive of 50 KW			135.00
	For every additional KW above 50 KW			200.00
	<b>Energy Charges (Rs./Unit)</b>			
	For 0-50			4.00
	For 0-100			4.80
	0 to above 100 units			7.30
	<b>REBATE FOR RURAL CONSUMERS @ 0.50 Rs/unit</b>			
LT-2 b: Applicable to Pvt. Professional & other Pvt. Educational Institutions	<b>LT-2 b (i) Applicable to areas coming under ULBs including CMCs.</b>			
	<b>Fixed Charges /month</b>			
	Per KW up to and inclusive of 50 KW	120.00		
	subject to minimum per month	150.00		
	For every additional KW above 50 KW	175.00		
	<b>Energy Charges (Rs. /Unit)</b>			
	For 1 to 200 units		7.30	
	For above 200 units		8.55	
	<b>LT-2 b (ii) Applicable to areas coming under Village Panchayats</b>			
	<b>Fixed Charges /month</b>			
	Per KW up to and inclusive of 50 KW	110.00		
	subject to minimum per month	135.00		
	For every additional KW above 50 KW	165.00		
	<b>Energy Charges (Rs. /Unit)</b>			
	For 1 to 200 units		6.75	
	For above 200 units		8.00	
	<b>LT-2 b Applicable to all areas of HESCOM</b>			
	<b>Fixed Charges /month</b>			
	Per KW up to and inclusive of 50 KW			145.00
	subject to minimum per month			175.00
	For every additional KW above 50 KW			200.00
<b>Energy Charges (Rs. /Unit)</b>				
For 1 to 200 units			7.20	
For above 200 units			8.45	
	<b>REBATE FOR RURAL CONSUMERS @ 0.50 Rs/unit</b>			
	<b>LT-3 (ii) : Applicable to areas coming under Village Panchayats.</b>			
	<b>Fixed Charges /month</b>			
Per KW up to and inclusive of 50 KW	115.00			





	For every additional KW above 50 KW	220.00		
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 50 units		7.90	
	For above 50 units		8.90	
	<b>LT-3 Applicable to all areas of HESCOM</b>			
	<b>Fixed Charges /month</b>			
	Per KW up to and inclusive of 50 KW		150.00	
	For every additional KW above 50 KW		255.00	
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 50 units			8.30
	For above 50 units			9.30
	<b>Power supply on permanent connection basis (Less than 67 HP) Existing LT7(b) merged with LT3</b>			
	<b>Fixed Charges /month/KW</b>		150.00	
	<b>Energy Charges (Rs./Unit)</b>			12.45
	<b>REBATE FOR RURAL CONSUMERS @ 0.50 Rs/unit</b>			
	<b>LT-4 (a) : Applicable to IP sets up to and inclusive of 10HP</b>			
	<b>Fixed Charges/HP/month</b>			
	Free power supply. Subsidized by Gom. Commission Determined Tariff		7.15	9.41
	<b>LT-4 (b) : Applicable to IP sets above 10HP</b>			
LT-4 IP Sets	<b>Fixed Charges/HP/month</b>	110.00	135.00	
	<b>Energy Charges (Rs./unit)</b>		3.90	3.80
	<b>LT-4 (c) : Pvt. Horti. Nurseries, Coffee &amp; Tea plantations (All installations)</b>			
	<b>Fixed Charges/HP/month</b>	100.00	125.00	
	<b>Energy Charges (Rs./unit)</b>		3.90	3.80
	<b>LT-5 :(a) Heating &amp; Motive power (including lighting)-Industries. Municipal Corporation Area</b>			
	<b>Fixed Charges/HP/month</b>			
LT-5 : Heating & Motive power (including lighting)- Industries.	i) For 5 HP & below	90.00		
	ii) For above 5 HP & below 40 HP	100.00		
	iii) For 40 HP & above but below 67 HP	125.00		
	iv) For 67 HP & above but below 100 HP	190.00		
	v) For 100 HP and above	225.00		
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 500 units		5.85	
	For 501 to 1000 units		6.85	
	For above 1000 units		7.15	
	<b>LT-5: (b) Heating &amp; Motive power (including lighting)-Industries. Area other than that of LT-5(a)</b>			
	<b>Fixed Charges/HP/month</b>			
	i) For 5 HP & below	80.00		
	ii) For above 5 HP & below 40 HP	95.00		
	iii) For 40 HP & above but below 67 HP	120.00		
	iv) For 67 HP & above but below 100 HP	175.00		

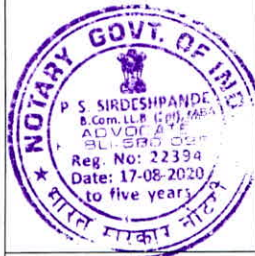


	v) For 100 HP and above	210.00		
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 500 units		5.75	
	For 501 to 1000 units		6.70	
	For above 1000 units		7.00	
	<b>LT-5 Applicable to all areas of HESCOM</b>			
	<b>Fixed Charges/HP/month</b>			
	i) Below 40 HP			115.00
	ii) For 40 HP & above but below 67 HP			125.00
	iii) For 100 HP and above			250.00
	<b>Energy Charges (Rs./Unit)</b>			
	For 1 to 500 units			5.75
	For 501 to 1000 units			6.75
	For above 1000 units			7.05
	<b>REBATE FOR RURAL CONSUMERS @ 0.50 Rs/unit</b>			
	<b>LT-6 (a): Water Supply</b>			
	<b>Fixed Charges/HP/month</b> Upto 67 HP	110.00		135.00
	For every additional KW above 67 HP	215.00		240.00
	<b>Energy Charges (Rs./unit)</b>		5.00	6.75
	<b>LT-6 (b): Public Lighting</b>			
	<b>Fixed Charges/KW/month</b>	125.00		150.00
	<b>Energy Charges (Rs./unit)</b>		6.65	8.40
	<b>Energy charges for LED / Induction Lighting</b>		5.60	7.35
	<b>LT-6 (c) Electric Vehicle Charging Stations (For Both LT &amp; HT)</b>			
	<b>Fixed Charges/KW/month</b> For LT Supply			
	Upto 50 KW	70.00		95.00
	For every additional KW above 50 KW	170.00		195.00
	<b>Demand Charges/KVA/month</b> For HT Supply	200.00		225.00
	<b>Energy Charges per KWH for both LT &amp; HT</b>		5.00	4.90
	<b>LT-7. (a) Temporary supply (Less than 67 HP)</b>			
	<b>Energy charges</b>		11.20	11.10
	<b>Weekly Minimum charges</b>	275.00		300.00
	<b>LT-7. (b) Power supply on permanent connection basis (Less than 67 HP) merged with LT3</b>			
	<b>Fixed Charges/KW/month</b>	150.00		
	<b>Energy Charges (Rs./unit) (for less than 67 HP)</b>		11.20	
	<b>HT-1. Water supply And Sewerage</b>			
	<b>Demand Charges/KVA/month</b>	250.00		275.00
	<b>Energy Charges (Rs./unit)</b>		5.60	5.50
	<b>HT-2 (a): HT-Industries.</b>			
	<b>Demand Charges/KVA/month</b>	265.00		290.00
	<b>For 1-100000 Units (Rs./unit)</b>		7.35	





	For the balance units (Rs./unit)		7.60	
	All units			7.30
	<b>Railway Traction and Effluent Treatment Plants</b>			
	<b>Demand Charges/KVA/month</b>	275.00		300.00
	Energy Charges (Rs./unit) for Railway Traction		6.60	6.50
	Energy Charges (Rs./unit) for Effluent Treatment Plants serviced outside the premises of any installations under HT2a		7.00	6.90
HT-2 (b)Commercial	<b>HT-2 (b)Commercial</b>			
	<b>Demand Charges/KVA/month</b>	290.00		315.00
	For 1- 200000 Units (Rs./unit)		9.05	
	For above 200000 units (Rs./unit)		9.15	
	All units			9.00
HT-2 © Hospitals,Ed inst - Govt	<b>HT-2 ©(i) Hospitals, Ed inst -Govt</b>			
	<b>Demand Charges/KVA/month</b>	260.00		285.00
	Energy Charges (Rs./unit)			
	For 1-100000 Units (Rs./unit)		7.20	
	For above 100000 units (Rs./unit)		7.60	
	All units			7.15
	<b>HT-2 ©(ii) Hospitals-other than HT-2 ©(i)</b>			
	<b>Demand Charges/KVA/month</b>	265.00		290.00
	Energy Charges (Rs./unit)			
	For 1-100000 Units (Rs./unit)		8.20	
	For above 100000 units (Rs./unit)		8.60	
	All units			8.15
	HT-3 : Lift Irrigation Schemes/Lift Irrigation Societies	<b>HT-3 (a)(i) : Lift Irrigation Schemes (Govt.)</b>		
<b>Energy charges</b>			3.15	3.05
<b>Annual Minimum charges/HP</b>		1900.00		2200.00
<b>HT-3 (a)(ii) : Private L.I. Schemes/L.I. Societies (Urban &amp; Express feeders).</b>				
<b>Fixed Charges/HP/month</b>		110.00		
<b>Energy Charges (Rs./Unit)</b>			3.15	
<b>HT-3 (a)(iii): Private L.I. Schemes/L.I. Societies other than those HT-3(a) (ii).</b>				
<b>Fixed Charges/HP/month</b>		90.00		
<b>Energy Charges (Rs./Unit)</b>			3.15	
<b>HT-3 (a)(ii) : Private L.I. Schemes/L.I. Societies including those connected to Urban &amp; Express feeders.( HT 3 (a)ii &amp; HT 3 (a) ii merged)</b>				
<b>Fixed Charges/HP/month</b>				135.00
<b>Energy Charges (Rs./Unit)</b>				4.00
<b>HT-3 (b) : Irrigation &amp; Agricultural Farms, Nurseries &amp; Plantations.</b>				
<b>Energy charges</b>			5.15	5.05
<b>Annual Minimum charges/HP</b>		1960.00		2260.00
HT-4: Residential Apartments & Colonies	<b>HT-4 : Applicable to all areas</b>			
	<b>Fixed Charges/KVA/month</b>	175.00		200.00
	<b>Energy Charges (Rs./Unit)</b>		7.05	6.95



HT-5: Temporary supply applicable to 67 HP & above	HT-5: Temporary supply applicable to 67 HP & above				
	Fixed Charges/HP/month	325.00		350.00	
	Energy Charges (Rs./Unit)		11.20		11.10

**Other tariff related issues:**

**1) Proposal for Wheeling charges within HESCOM area:**

The allocation of the distribution network costs to HT and LT networks for determining wheeling charges is done in the ratio of 30:70, as was being done earlier. Based on the approved ARR for distribution business, the wheeling charges to each voltage level is worked out as under:

**Wheeling Charges**

Wheeling charges- paise /unit

Particulars	FY-24
Distribution ARR Rs Crs	1748.72
Sales – Mu	12859.20
<b>Wheeling charges- paise /unit</b>	136.00
	<b>Paise /unit</b>
HT-net work. 30%	40.80
LT- net work. 70%	95.20

In addition to the above, the following technical losses are applicable to all open access/wheeling transactions:

Loss allocation	% loss
HT	4.78
LT	7.72

The actual wheeling charges payable (after rounding off) will depend upon the point of injection & point of drawal as under:

		Paise/unit	
Injection point →		HT	LT
Drawal Point ↓			
	HT	40.80 (4.78%)	136.00(12.50%)
	LT	136.00 (12.50%)	40.80 (4.78%)



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The Wheeling charges as determined above are applicable to all the open access/ wheeling transactions for using the HESCOM network, except for energy wheeled from renewable sources to the consumers in the State.

For wheeling and banking charges for RE sources wheeling energy to consumers within the State and also 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.

#### Fuel Cost adjustment charge:

The Commission in its tariff order dated 30<sup>th</sup> April 2012 had decided to introduce fuel cost adjustment charges and the Commission has notified the Regulations on 22<sup>nd</sup> March, 2013. The Fuel Cost adjustment charges have come into effect from the billing quarter beginning from 1<sup>st</sup> July 2013. Subsequently, the Commission has notified an amendment to these Regulations on 3<sup>rd</sup> December 2013. Accordingly the Commission is reviewing FAC claims of ESCOMs on quarterly basis and separate are being issued.

#### 2) Cross subsidy Charges:

HESCOM proposes the cross subsidy charges for FY-24 calculated as per MYT Regulations adopting the methodology specified in the Tariff Policy -2016 as noted below. At present scenario, as there is no CSS for LT categories, computation of CSS is not made.

Paise per unit								
SI NO	Particulars	HT-1 Water Supply	HT-2(a) Industries	HT-2b Commerci al	HT-2 (c)(i)	HT-2 (c)(ii)	HT-4 Residential Apartments	HT-5 Tempora ry
					Hospitals & Ed. Institutions			
1	Average tariff rate	662.54	996.64	1263.21	920.86	1101.67	823.93	1800.02
2	Cost of supply @ 66 kv and above level	514.36	514.36	514.36	514.36	514.36	514.36	514.36
4	Cross subsidy surcharge @ 66 kv & above level	148.18	482.29	748.86	406.51	587.32	309.57	1285.67
5	Cost of supply at @HT level	633.58	633.58	633.58	633.58	633.58	633.58	633.58
6	Cross subsidy surcharge @HT level	28.96	363.06	629.63	287.28	468.09	190.35	1166.44
7	20% of tariff payable by relevant category	132.51	199.33	252.64	184.17	220.33	164.79	360.00
8	<b>Proposed Cross subsidy surcharge @ 66 kv &amp; above level</b>	<b>148.00</b>	<b>199.00</b>	<b>253.00</b>	<b>184.00</b>	<b>220.00</b>	<b>165.00</b>	<b>360.00</b>
9	<b>Proposed Cross subsidy surcharge @HT level</b>	<b>29.00</b>	<b>199.00</b>	<b>253.00</b>	<b>184.00</b>	<b>220.00</b>	<b>165.00</b>	<b>360.00</b>

Note: CSS is determined limiting to 20% of the the tariff applicable to relevant category as per Tariff Policy 2016 (after rounding off to nearest paise). Wherever CSS is one paise or less, it is made zero



**Additional Surcharge:**

HESCOM has tied up sufficient quantum of power, after approval of the Hon'ble Commission by considering the overall growth in sales. However, a large number of HT consumers are buying power under open access instead of availing supply from the HESCOM. As a result, the generation capacity tied up by the HESCOM remains idle. In this situation, HESCOM, is forced to back down the generation from conventional sources and also required to pay Capacity Charges to the Generators, irrespective of actual energy being purchased. Thus, there is there is a need of recovery of part of fixed cost towards the stranded capacity arising from the power purchase obligation through levy of Additional Surcharge.

HESCOM proposes for Additional Surcharge for FY24 based on Actuals of FY-22 and also ARR for FY-24 considering the provisions of the Electricity Act 2003, National Electricity Policy, Tariff Policy, KERC Regulations and Orders of the Hon'ble Supreme Court and Hon'ble APTEL, to meet the stranded fixed cost obligations of the HESCOM arising out of its obligations to supply power, computed as stated below:

**A. Based on Actuals of FY-22:**

**Table-1**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Energy Sales as per flow diagram	MU	1869.66	9892.32	11761.98
2	Share of sales Voltage-wise	%	15.90%	84.10%	100.00%
3	Distribution Losses	MU	287.53	1521.29	1808.82
4	Total IF energy (1+3)	MU	2157.19	11413.61	13570.80
5	Transmission Loss	%	67.48	357.02	424.50
6	Total Energy at Gen Bus (4+5)	MU	2224.66	11770.64	13995.30
7	Share of Energy procured at different voltages (voltage wise energy/total energy*100)	%	15.90%	84.10%	100.0%
8	Total PP Cost(Excluding KPTCL Transmission Charge+SLDC)	Rs.in Cr.			7814.49
9	Share of PP Cost = 8*7		1242.18	6572.31	7814.49
10	Other Cost (Transmission & Dist. Network)	Rs.in Cr.			1068.67
11	Share of other cost =2*10	Rs.in Cr.	169.87	898.80	1068.67
12	Total Cost = 9 + 11	Rs.in Cr.	1412.05	7471.11	8883.16
13	Voltage wise per unit Cost	Rs./unit	7.55	7.55	7.55



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**Table-2**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Total PP Cost ( Sl. No. 8 of Table-1)	Rs.in Cr.			7814.49
2	Share of PP Cost as per Sl . No. 7 of Table-1	%	15.90%	84.10%	100.00%
3	Share of PP Cost as per Sl . No. 9 of Table-1	Rs.in Cr.	1242.18	6572.31	7814.49
4	Total Fixed Charges of Power Purchase @ Gen. Bus (Excluding KPTCL Transmission Charge+SLDC)	Rs.in Cr.			2561.66
5	Voltage wise Fixed Charge =2*4	Rs.in Cr.	407.20	2154.46	2561.66
6	Total Variable Charges of PP at Gen. bus	Rs.in Cr.			5066.48
7	Voltage wise VC = 6*2	Rs.in Cr.	805.36	4261.12	5066.48
8	Other Cost as per Sl. No. 10 of Table-1	Rs.in Cr.	169.87	898.80	1068.67
9	Total Fixed Expenditure (4+8)	Rs.in Cr.	577.07	3053.26	3630.33

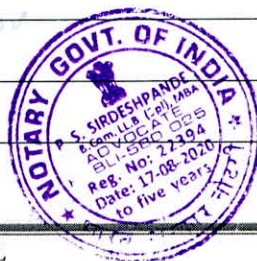
**Table-3**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Revenue for the year		1515.90	7288.48	8804.38
2	Total Demand Charge(FC) realized for the year in respect of EHT & HT consumers (except LT)	Rs.in Cr.	350.67	NA	NA
3	FC recoverable as per Sl.No. 9(Total of EHT+HT consumers of table-2 (Except LT)	Rs.in Cr.	577.07	NA	NA
4	Under recovery of FC from EHT & HT Consumers	Rs.in Cr.	226.40	NA	NA
5	Per unit under recovery from EHT & HT consumers to be recovered as Additional Surcharge	Rs. Per Unit	1.21	NA	NA

**B. Based on ARR for FY-24:**

**Table-1**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Energy Sales as per flow diagram	MU	2207.35	10651.85	12859.20
2	Share of sales Voltage-wise	%	17.17%	82.83%	100.00%
3	Distribution Losses	MU	315.34	1521.69	1837.03
4	Total IF energy (1+3)	MU	2522.69	12173.54	14696.23
5	Transmission Loss	%	71.71	346.04	417.75
6	Total Energy at Gen Bus (4+5)	MU	2594.39	12519.59	15113.98
7	Share of Energy procured at different voltages (voltage wise energy/total energy*100)	%	17.17%	82.83%	100.0%
8	Total PP Cost(Excluding KPTCL Transmission Charge+SLDC)	Rs.in Cr.			6692.37
9	Share of PP Cost = 8*7		1148.78	5543.59	6692.37
10	Other Cost (Transmission & Dist. Network)	Rs.in Cr.			2279.09
11	Share of other cost =2*10	Rs.in Cr.	391.22	1887.87	2279.09
12	Total Cost = 9 + 11	Rs.in Cr.	1540.00	7431.46	8971.46
13	Voltage wise per unit Cost	Rs./unit	6.98	6.98	6.98



**Table-2**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Total PP Cost ( Sl. No. 8 of Table-1)	Rs.in Cr.			6692.37
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.	1148.78	5543.59	6692.37
4	Total Fixed Charges of Power Purchase @ Gen. Bus (Excluding KPTCL Transmission Charge+SLDC)	Rs.in Cr.			1876.88
5	Voltage wise Fixed Charge =2*4	Rs.in Cr.	322.18	1554.70	1876.88
6	Total Variable Charges of PP at Gen. bus	Rs.in Cr.			4815.49
7	Voltage wise VC = 6*2	Rs.in Cr.	826.60	3988.89	4815.49
8	Other Cost as per Sl. No. 10 of Table-1	Rs.in Cr.	391.22	1887.87	2279.09
9	Total Fixed Expenditure (4+8)	Rs.in Cr.	713.39	3442.58	4155.97

**Table-3**

Sl No	Particulars	Unit	110KV 66KV & 11 kV	LT	Total
1	Revenue for the year		1401.79	8666.90	10068.69
2	Total Demand Charge(FC) realized for the year in respect of EHT & HT consumers (except LT)	Rs.in Cr.	506.47	NA	NA
3	FC recoverable as per Sl.No. 9(Total of EHT+HT consumers of table-2 (Except LT)	Rs.in Cr.	713.39	NA	NA
4	Under recovery of FC from EHT & HT Consumers	Rs.in Cr.	206.92	NA	NA
5	<b>Per unit under recovery from EHT &amp; HT consumers to be recovered as Additional Surcharge</b>	Rs. Per Unit	<b>0.94</b>	NA	NA

**GREEN TARIFF:**

HESCOM proposes for the continuation of Green Tariff as stipulated in the Tariff Order-2012.



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