REPRESENTATION NO. 48 OF 2026

In the matter of high billing in higher tariff slab due to recording of excess KVA MD

Shivaji Tukaram Shinde (Original Consumer). ……………………………. ………Appellant
Babasaheb Mangu Pujari (Occupier – User)

V/s.

Maharashtra State Electricity Distribution Co. Ltd. Ichalkaranji Dn. …………Respondent
(MSEDCL)

Appearances:

Appellant : Babasaheb Mangu Pujari, Occupier

Respondent: 1. Vaibhav Gondil, Executive Engineer, Ichalkaranji Dn.
2. Santosh Patil, Addl. Executive Engineer, Ichalkaranji B S/Dn.

Coram: Vandana Krishna [I.A.S.(Retd.)]

Date of hearing: 14th May 2026

Date of Order : 20th July 2026

ORDER

This Representation was filed on 30th March 2026 under Regulation 19.1 of the Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum and Electricity Ombudsman) Regulations, 2020 (CGRF & EO Regulations 2020) against the order dated 29th January 2026 passed by the Consumer Grievance Redressal Forum, Kolhapur (the Forum) in Case No. 75 of 2025. The Forum, by its order, rejected the grievance application, observing

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

that the Appellant had failed to maintain the prescribed 0.8 power factor during September 2025 and October 2025, which resulted in the recording of maximum demand of 32 kVA and 35 kVA respectively. As per Regulation 19.22(h) of CGRF & EO Regulations 2020, the Appellant has to pay the statutory deposit of Rs. 25,000/- which was paid on 20th April 2026. Hence, this Representation was duly registered on 20th April 2026.

2. ***PREAMBLE:***

The definitions of "Contract Demand" and "Maximum Demand" under the applicable Regulations and Orders are reproduced below:

- *Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Standards of Performance of Distribution Licensees including Power Quality) Regulations, 2021 (Supply Code & SoP Regulations, 2021: Effective from Feb. 2021 onwards*
- *2. Definitions*

*m. **"Contract Demand"** means demand in kilowatt (kW) / kilovolt ampere (kVA)/ Horse Power (HP), mutually agreed between Distribution Licensee and the Consumer as entered into an agreement in which the Distribution Licensee makes a commitment to supply in accordance with the terms and conditions contained therein; or equal to the Sanctioned Load, where the Contract Demand has not been provided in such agreement;*

*gg : **"Maximum Demand"** in kilowatts or kilo-volt-amperes, in relation to any period shall, unless otherwise provided in any general or special order of the Commission, mean four times the largest number of kilowatt-hours or kilovolt-ampere-hours supplied and taken during any consecutive Fifteen (15) minutes blocks in that period:*

Provided that Licensee shall continue to compute Maximum Demand in Thirty (30) minute blocks till the meters are replaced / re-programmed for Fifteen (15) minute blocks, as per the plan approved by the Commission.

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai
M.E.R.C.

- ***MERC Tariff Orders – Case No. 226 of 2022 (dated 31st March 2023 effective from 1st April 2023) and Case No. 217 of 2024 (dated 28th March 2026, effective from 1st April 2026)***

  The definitions of Maximum Demand and Contract Demand remain identical in both Orders, as reproduced below:

  ***Maximum Demand**: Maximum Demand in kilo-Watts or kilo-Volt Amperes, in relation to any period shall, unless otherwise provided in any general or specific Order of the Commission, mean twice (or four times for fifteen minute time block) the highest number of kilo-watt-hours or kilo-Volt Ampere hours supplied and taken during any consecutive thirty minute blocks (or fifteen minute time block) in that period, as the case may be.*

  Contract Demand:** Contract Demand means the demand in kilo-Watt (kW) or kilo–Volt Amperes (kVA), mutually agreed between the Distribution Licensee and the consumer as entered into in the agreement or agreed through other written communication**. (For conversion of kW into kVA, the Power Factor of 0.80 shall be applied.)

- ***The Commission's views regarding KVAH billing in Tariff Order 217 of 2024 dated 28.03.2026 effective from 01.04.2026 are as below:***

  kVAh billing in MERC Tariff Orders shifts electricity charges from purely active energy (kWh) to apparent energy (kVAh), meaning both real and reactive power are billed. This has major implications for industrial and commercial consumers in Maharashtra, especially those with sanctioned loads above 20 kW, who must maintain a high Power Factor to avoid steep increases in bills.

- *In **Tariff Order 217 of 2024 dated 28.03.2026 the following details are provided:***

  7.1.9 More importantly, in line with the intentions of the Commission expressed in the last MTR Order in Case No. 226 of 2022 and as proposed by MSEDCL, the Commission is going ahead with implementation of the kVAh based billing for all the LT Consumers of MSEDCL with load above 20 kW. ……………………. the Commission has noted the submissions of MSEDCL about the preparedness for ensuring the adequate metering and billing infrastructure for applicability of KVAh billing to all LT consumers with load above 20 kW.

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai
M.E.R.C.

7.1.10 *Further, the Commission has noted the Smart Meters rollout plan of MSEDCL for all consumers during this MYT control period. With smart meter rollout plan, MSEDCL has proposed to introduce TOD Tariff Rebate during daytime (Solar Hours) for all residential consumers and for other consumers with sanctioned load/contract demand more than 10 kW. Further, consumers below 10kW (other than residential) shall also have choice to opt for TOD billing. Considering the implementation time for modification of ToD Slabs for existing consumers with ToD meters, the Commission has allowed transition period up to three months for HT consumers and up to six months for LT consumers.*

.. ….. ………….. ……….

7.16.0 kVAh based billing

MSEDCL's Submission

7.16.1 *MSEDCL has submitted that it had earlier proposed the implementation of kVAh-based billing for HT consumers in its MYT Petition for the fourth Control Period in Case No. 322 of 2019 to promote a unity power factor, reduce system losses, and improve power quality. The Commission, in its Order dated 30th March 2020, acknowledged the rationale and allowed its implementation for HT consumers while directing MSEDCL to complete the meter replacement process for LT consumers above 20 kW.*

7.16.2 *In its MYT Order in Case No. 226 of 2022 dated 31st March 2023, the Commission noted that full implementation for LT consumers above 20 kW would only be feasible by January 2024 and directed MSEDCL to complete the transition within a year while submitting six-monthly status reports. The Commission also emphasized that kVAh meter data for LT consumers above 20 kW should be available for at least one year before the next tariff review.*

7.16.3 *MSEDCL has reiterated that kVAh-based billing inherently incentivizes a better power factor, leading to lower consumer bills and reduced power purchase costs for the licensee. Referring to the Hon'ble APTEL's ruling, MSEDCL has stated that kVAh billing automatically accounts for power factor incentives and disincentives, thereby eliminating the need for separate power factor incentives and penalties.*

7.16.4 *Further, MSEDCL has highlighted that kVAh billing for LT consumers have already been adopted in some of the states in India as per orders of respective SERCs. Some examples of such orders along with applicability of kVAh based billing have been provided below: Table 409: Applicability of kVAH based billing in various states……*

7.16.5 *Further, MSEDCL has highlighted that various states have already adopted kVAh billing for multiple consumer categories. MSEDCL has provided a comparative analysis of kVAh-based billing implementation across multiple states, highlighting its widespread adoption for industrial, commercial, and other consumer categories.*

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

7.16.6 Accordingly, MSEDCL has proposed implementing kVAh-based billing for LT consumers above 20 kW from the fifth Control Period (FY 2025-26 to FY 2029-30) and has requested the Commission to approve its proposal while allowing the withdrawal of power factor incentives and penalties for these consumers.

Commission's Analysis and Ruling

7.16.7 The Commission has noted the submission of MSEDCL. The Commission has introduced the kVAh billing for HT consumers from 1 April 2020 as per the provisions of the MYT Regulations, 2019. Further the Commission has taken consistent approach for introduction of kVAh billing in its earlier Orders.

7.16.8 The prime objective of kVAh based billing is to encourage the consumers to maintain near unity Power factor to achieve loss reduction, improve system stability, power quality and improve voltage profile. Additionally, due to improvement of Power Factor (nearer to unity), the consumer's demand may get reduced and the kVAh bill will correspondingly reduce in turn due to improved system voltage. The improvement in Power Factor will further reduce the Licensee's expenditure on Power Purchase and thereby the consumers are expected to be benefited with lower tariff.

7.16.9 As per the directives of the Commission in the MYT Order in Case No. 322 of 2019 dated 30th March 2020, MSEDCL has submitted the proposal for adoption of kVAh billing for LT consumers having load above 20 kW. Further, MSEDCL to complete its meter conversion process along-with other system modifications for such consumer categories to enable kVAh billing.

7.16.10 In this context, the Commission observes the MSEDCL's submission in the matter of the Suo-Moto proceedings in Case No. 4/SM/2024 that replacement/modification of LT consumers with load above 20 kW for purpose of kVAh metering shall be completed by May 2025. Following table summarises existing status of completion of kVAh metering for LT-consumers with load above 20 kW.

Table 410: Status of kVAh Metering for LT Consumers with load above 20 kW

………..

7.16.11 Accordingly, Commission has decided to approve the proposal of MSEDCL for adoption of kVAh billing for LT consumers with load above 20 kW from 1 April, 2025 and directs MSEDCL to expedite the implementation of kVAh meters or modification of meters for remaining consumers to enable kVAh billing expeditiously. Until such modification of kVAh metering and billing for such LT consumers with load above 20 kW, the billing on kWh basis alongwith existing structure of PF incentive and penalty for power factor shall continue for such consumers.

7.16.12 Several objectors have taken objection on how billing will be done if power purchase unit is kW then how MSEDCL can raise bills to consumers in terms of kVAh. The Commission has taken the note of objectors and MSEDCL is directed to maintain kWh sale for Energy Balance. Further, in electricity bills of consumers,

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai
M.E.R.C.

MSEDCL shall display Power Factor on bills which will be beneficial for consumers to measure electricity consumption in kWh. This will be helpful for consumers.

- For a three-phase AC system, the relationship is:

  Active Energy (kWh) = Apparent Energy (kVAh) × Average Power Factor

  or

  kWh=kVAh× Power Factor

  where:

  - kWh = Active energy consumed
  - kVAh = Apparent energy recorded
  - Power Factor (PF) = kWh ÷ kVAh

3. Aggrieved with the order passed by the Forum, the Appellant has filed the present representation. An e-hearing was conducted on 14th May 2026 through video conferencing, wherein the Appellant–Occupier and the Respondent remained present. The parties were heard at length. The Respondent's submissions and arguments are stated as below: *[The Electricity Ombudsman's observations and comments are recorded under 'Notes' where needed.]*

(i) The Appellant has been an industrial consumer since 30.12.1997 for the purpose of running an engineering workshop. The particulars of the consumer number, sanctioned load, address, and recorded kVA maximum demand for Aug. 2025, September 2025 and October 2025 are set out below:

Table 1:-

Name	**Consumer No.**	**Address**	**Sanct. Load**	**Date of Supply**	**Recorded Load & Maximum Demand & Power Factor**			**Tariff Applicability**
					Aug-25	**Sep-25**	**Oct-25**	
Shivaji Tukaram Shinde	250380129376	H.No.10/1270, Kalanagar Survemala, Ichalkaranji	11 HP upto Sep-2025 & 26 HP from Oct-2025	30.12.1997	10 kW/ 32 kVA with recorded 0.28 PF	16 kW / 32 kVA with recorded 0.33 PF	16 kW / 35 kVAwith recorded 0.34 PF	36 LT-V BII (Above 25 kVA recorded MD)

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

(ii) The rate/tariff applicable to various categories of electricity connections for Maharashtra State Electricity Distribution Company Limited is determined only after obtaining prior approval from the Maharashtra Electricity Regulatory Commission (MERC). Before granting such approval, the objections and suggestions received in respect of the proposed tariff categories are duly considered by the Commission. Accordingly, electricity bills are issued by the field offices in terms of the tariff orders so approved. In the present case, the sanctioned load of the consumer was 11 HP up to September 2025 and thereafter, with effect from October 2025, the connected load increased to 26 HP.

(iii) The meter (Sr. No. 00453128) of the Appellant was replaced on 01.08.2025 with Smart Meter (Sr. No. M 12530185238).

(iv) During August 2025, September 2025 and October 2025, the recorded load, Maximum Demand (MD) and Power Factor (PF) were as follows: in August 2025, the recorded load was 10 kW, the Maximum Demand was 32 kVA, and the recorded Power Factor was 0.28; in September 2025, the recorded load increased to 16 kW, while the Maximum Demand remained 32 kVA with a recorded Power Factor of 0.33; and in October 2025, the recorded load remained 16 kW, the Maximum Demand increased to 35 kVA, and the recorded Power Factor improved marginally to 0.34 as tabulated in Table 1.

(v) The MERC Tariff Order in Case No. 226 of 2022 provides that where the actual Maximum Demand exceeds 25 kVA, the consumer is liable to be billed under the “Above 20 kW” tariff category. If such excess demand is recorded on more than three occasions in a year, the consumer's tariff category is liable to be changed from “Below 20 kW” to “Above 20 kW.” Further, the MERC Tariff Order in Case No. 217 of 2024 defines “Contract Demand” as the demand in kW or kVA mutually agreed between the Distribution Licensee and the consumer, and “Maximum Demand” as the highest demand recorded during a specified period, measured in kVA. The said Tariff Order (Page No. 786) also stipulates that where the recorded demand exceeds 25 kVA, billing shall be carried out under the higher tariff slab on the basis of kVA demand and kVAh recorded consumption. Accordingly, the billing issued to the consumer is in accordance with the applicable tariff provisions approved by the Commission.

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

(vi) The Appellant has alleged incorrect billing for September and October 2025 under the "Above 20 KW" tariff category. However, the recorded Maximum Demand during the-said period was as under: September 2025 – 16.000 KW and 32.000 KVA; October 2025 – 16.000 KW and 35.000 KVA. Since the KVA Maximum Demand exceeded 25 KVA in both months, billing under LT-V B II (Above 20 KW) category was proper and valid. The consumer was also informed in detail by the sub-divisional office regarding KVAh billing. The billing details are tabulated as below:

Table 2:

Month	Aug-25	Sep-25	Oct-25	Nov-25
kWh recorded	59	4222	1667	2469
kVAh recorded	0	12742	3434	Not applicable, as billing is on a kWh basis onwrd having load up to 20 kW/and kVA is less than 25 kVA
Amount in Rs.	1,170.61	1,56,872.13	46,872.09	21,976.92
Remarks : The existing meter was replaced with a smart meter on 01.08.2025. The old meter recorded 59 kWh up to the date & time of replacement. This consumption was accumulated and billed in Sep. 2025, covering the consumption for Aug. 2025 and Sep.2025.				

(vii) The Appellant installed an Automatic Power Factor Correction (APFC) Panel at the end of October 2025. Thereafter, the Appellant's power factor improved to nearly unity, resulting in the recorded Maximum Demand (kVA) remaining below 25 kVA. Consequently, the Appellant has been billed under the 0–20 kW tariff slab. The electricity bills are generated automatically by the billing system based on the MRI data retrieved from the meter, in accordance with the programmed billing logic.

(viii) The Respondent submitted the Consumer Personal Ledger (CPL), along with the MRI data of the meter and detailed billing records. The same have been taken on record.

(ix) In view of the above facts, the Respondent prays that the representation of the Appellant be rejected.

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

4. The Appellant's submissions and arguments are stated below:

(i) The Appellant is eligible for the tariff applicable to the consumers under 27 HP category as per the MERC tariff orders in force.

(ii) The bills for September 2025 and October 2025 were excessive and improper. The recorded load was 16 kW during both September 2025 and October 2025, while the corresponding maximum demand was 32 kVA and 35 kVA, respectively. The Respondent has wrongly applied the LT-V B ("Above 20 KW") tariff category. The Respondent never issued any notice to the Appellant for change of tariff category from LT V (A) to the LT-V B II.

(iii) The Appellant prays that the Respondent be directed to revise the electricity bills for September 2025 and October 2025 by applying the 0–20 kW Industrial Tariff Slab, and to waive the entire interest and delayed payment charges levied thereon. The Appellant further seeks the facility of suitable instalments for payment of the revised dues, if any.

Analysis and Ruling

5. Heard the parties and perused the documents on record including the Consumer Personal Ledger (CPL), MRI data, billing history, tariff provisions and the submissions of both parties. The Appellant is an industrial consumer from 30.12.1997 for the purpose of engineering workshop. The details of the Appellant's connection are stated in Table 1.

6. The sanctioned load was 11 HP up to September 2025 and was enhanced to 26 HP with effect from October 2025. The dispute is confined to the electricity bills for September 2025 and October 2025, wherein the Respondent billed the Appellant under the LT-V B II (Above 20 kW) tariff category on the basis of recorded Maximum Demand exceeding 25 kVA.

7. This Office has carried out an **indicative analysis of the MRI data** of the meter for the limited purpose of verifying the billing parameters recorded by the meter. The relevant details are tabulated below:

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

Table 3:

Month	Power Factor	MD (kW)	MD (kW) Date & Time	MD (kVA)	MD (kVA) Date & Time
Aug-25	0.33	14.79	23.08.2025: 11:30:00	32.165	23.08.2025: 11:30:00
Sep-25	0.34	15.544	11.09.2025: 15:00:00	32.078	11.09.2025: 15:00:00
Oct-25	0.48	14.658	10.10.2025:17:30:00	34.503	02.10.2025 08:30:00
Nov-25	0.97	15.058	14.11.2025 :15:30:00	15.244	14.11.2025 :15:30:00
Dec-25	0.97	13.82	28.12.2025 11:00:00	14.07	28.12.2025 11:00:00
Jan-26	0.96	13.38	27.01.2026:15:30:00	13.634	27.01.2026:15:30:00
Feb-26	0.96	12.995	24.02.2026: 15:00:00	13.117	24.02.2026: 15:00:00
Mar-26	0.97	14.869	28.03.2026:15:30:00	15.223	28.03.2026 15:30:00
Apr-26	0.97	12.111	14.04.2026 :18:30:00	12.34	14.04.2026 :18:30:00

8. The recorded data clearly indicates that during the disputed period from August to October 2025, the Appellant's Power Factor was abnormally low, ranging between 0.33 and 0.48. This poor efficiency drove the recorded Maximum Demand to excessive levels about 35 kVA, despite the actual active load remaining consistently low at approximately 10 to 16 kW.

9. Following the installation of the Automatic Power Factor Correction (APFC) panel in late October 2025, the Power Factor dramatically improved to 0.96–0.97. As a direct result, the recorded Maximum Demand fell to 10–15 kVA from November 2025 onwards, while the underlying active load remained virtually unchanged. This stark contrast establishes that the higher billing during September and October 2025 was entirely a consequence of the poor Power Factor maintained by the Appellant, rather than any defect in the meter or error in the billing system.

10. The Respondent has relied upon the provisions of the MERC Tariff Orders in Case No. 226 of 2022 and Case No. 217 of 2024, which provide for billing of LT consumers having load above 20 kW and/ or KVA more than 25 kVA, on the basis of kVAh consumption and Maximum Demand in kVA. The relevant tariff orders define "Contract Demand" and "Maximum Demand" and stipulate that where the recorded Maximum Demand exceeds 25

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

kVA, billing is required to be carried out under the applicable higher tariff slab on kVA demand and kVAh consumption.

11. The contention of the Appellant that the tariff should have been determined solely on the basis of the recorded load in kW cannot be accepted. Under the applicable MERC Tariff Orders, billing for the concerned category is based upon the recorded Maximum Demand in kVA and kVAh consumption, and not merely on the active load in kW. The billing system generates the bills automatically on the basis of the MRI data recorded by the smart meter. No material has been produced by the Appellant to establish that the MRI data or meter recordings were inaccurate.

12. The Appellant has also contended that no prior notice was issued before billing under the higher tariff slab. However, the tariff applicable to a consumer is governed by the Tariff Orders issued by the Commission and is automatically determined on the basis of the recorded demand and billing parameters prescribed therein. Non-issuance of a separate notice does not invalidate the billing where the tariff has been correctly applied in accordance with the approved tariff order.

13. Accordingly, we hold that the Respondent has correctly billed the Appellant under the applicable tariff for the months of September 2025 and October 2025, and no interference with the impugned bills is warranted. However, considering that the dispute primarily arose due to the Appellant's lack of awareness regarding the implications of poor Power Factor and that the Appellant has subsequently installed an Automatic Power Factor Correction (APFC) Panel, resulting in substantial improvement in the Power Factor and reduction in Maximum Demand, this is a fit case for granting limited equitable relief with regard to recovery of the outstanding dues.

14. It is held that the electricity bills issued by the Respondent for September 2025 and October 2025 under the applicable LT-V B II (Above 20 kW) tariff category are legal, valid and in conformity with the applicable MERC Tariff Orders. Accordingly, the Appellant's

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai M.E.R.C.

prayer for revision of the said bills by applying the 0–20 kW Industrial Tariff Slab cannot be accepted. However, considering the facts and circumstances of the case, the following relief is granted to the Appellant in the interest of equity. In view of the above, the Respondent is *directed to*

a) Waive the demand penalties imposed on the Appellant, which amounted to Rs. 13,800/- for September 2025 and Rs. 6,600/- for October 2025.
b) Waive off interest and delayed payment charges from Aug. 2025 onwards till the date of this order.
c) The balance outstanding amount of about Rs. 45,000/-, after giving effect to the above direction, shall be recoverable from the Appellant in five (5) equal monthly instalments, without charging any further interest or Delayed Payment Charges, provided each instalment is paid on or before its due date along with the current electricity bills.
d) In the event of default in payment of any instalment, the Respondent shall be at liberty to recover the balance outstanding amount in accordance with law.
e) The Respondent shall submit a compliance report to this Office within two months from the date of issuance of this Order.
f) All other prayers made by the Appellant stand rejected.

15. The Representation is disposed of accordingly.

16. The Secretariat of this office is directed to refund Rs. 25,000/- paid by the Appellants to the Respondent for adjusting in the ensuing bill.

Sd/-
(Vandana Krishna)
Electricity Ombudsman (Mumbai)

(Dilip Dumbre)
Secretary
Electricity Ombudsman Mumbai

Electricity Ombudsman Mumbai
M.E.R.C.