BEFORE THE ELECTRICITY OMBUDSMAN (MUMBAI)

(Appointed by the Maharashtra Electricity Regulatory Commission under Section 42(6) of the Electricity Act, 2003)

REPRESENTATION NO. 35 OF 2021

In the matter of retrospective recovery towards under billing

V/s.

Appearances

Appellant : 1. Shantaraj Shetty

2. Manish Shah, Representative

Respondent : 1. D. P. Bhanage, Executive Engineer, Mulund

2. Shakil Patil, Acting Addl. Exe. Engineer

Coram: Deepak Lad

Date of hearing: 11th June 2021

Date of Order : 26th July 2021

ORDER

This Representation is filed on 7th May 2021 under Regulation 17.2 of the Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2006 (CGRF Regulations 2006) against the Order dated 17th August 2020 passed by the Consumer Grievance Redressal Forum, MSEDCL Bhandup Zone (the Forum).

2. The Forum, by its order dated 17.08.2020 has partly allowed the grievance application in Case No. 70/2019 directing as under:



- "2. The respondent utility hereby directed to recover the arrears of bill of 24 months only from consumer applicant, for voltage missing period and it adjusted in the future bill."
- 3. Aggrieved by the order of the Forum, the Appellant has filed this representation stating in brief as under: -
 - (i) The Appellant, Owner of Sandeep Bar & Restaurant is a LT Commercial Consumer (No. 022919053330) since October 2005 having Sanctioned Load (SL) of 95 KW and Contract Demand (CD) of 119 KVA at Chandradarshan, M. G. Road, Mulund (West), Mumbai. The Appellant is billed under LT - II Commercial tariff category.
 - (ii) The Flying Squad of the Respondent inspected the electric installation of the Appellant on 14.04.2019. During inspection, meter data was retrieved through MRI. The data shows that the voltage of 'R' Phase with respect to Neutral (Vr-n) was found low, however voltage of Y phase to Neutral (Vy-n) and voltage of B phase to Neutral (Vb-n) were found high. This clearly established that the meter was faulty.
 - (iii) The Respondent issued supplementary bill of Rs.72,15,340/- to the Appellant for 36 months considering the meter to be 35% slow.
 - (iv) The Appellant filed complaint against this supplementary bill in Internal Grievance Redressal Cell (IGRC) with a request to revise it as per Regulation 15.4.1 of the Maharashtra Electricity Regulatory Commission (Electricity Supply Code & Other Conditions of Supply) Regulations, 2005 (Supply Code Regulations 2005). The IGRC, by its order dated 09.10.2019 has rejected the complaint.
 - (v) The Appellant then approached the Forum on 08.02.2020. During hearing, the Appellant had submitted rejoinder of the consumption statement from January 2015 to November 2019 where he had tried to show the average consumption which was almost the same before and even after replacement of metering device.

Average Consumption 2015 - 20,622 units.

Average Consumption 2016 - 19,911 units.

Average Consumption 2017 - 21,035 units.

Average Consumption 2018 - 23,331 units.

Average Consumption 2019 till replacement of meter - 20,997 units.



Average Consumption 2019 after replacement of meter – 19,061 units.

If the old meter was measuring 35% less energy, then the new meter should have calculated 29000 units per month after replacement of old meter. But in reality, it is average 19061 units.

(vi) The defective meter of the Appellant needs to be replaced as per the Maharashtra Electricity Regulatory Commission (Standards of Performance of Distribution Licensees, Period for Giving Supply and Determination of Compensation) Regulations, 2014 (SOP Regulations 2014) in next billing cycle. Regulations need to be followed in letter and spirit. Therefore, the Appellant cannot be billed more than three months on average basis as per Regulation 15.4.1 of Supply Code Regulation 2005. The said Regulation is reproduced as below: -

"15.4.1 Subject to the provisions of Part XII and Part XIV of the Act, in case of a defective meter, the amount of the consumer's bill shall be adjusted, for a maximum period of three months prior to the month in which the dispute has arisen, in accordance with the results of the test taken subject to furnishing the test report of the meter along with the assessed bill.

Provided that, in case of broken or damaged meter seal, the meter shall be tested for defectiveness or tampering. In case of defective meter, the assessment shall be carried out as per clause 15.4.1 above and, in case of tampering as per Section 126 or Section 135 of the Act, depending on the circumstances of each case.

Provided further that, in case the meter has stopped recording, the consumer will be billed for the period for which the meter has stopped recording, up to a maximum period of three months, based on the average metered consumption for twelve months immediately preceding the three months prior to the month in which the billing is contemplated."

The Forum, by its order dated 17.08.2020 has partly allowed the grievance application directing to recover the arrears of bill for 24 months only for voltage missing period and it is to be adjusted in the future bill.

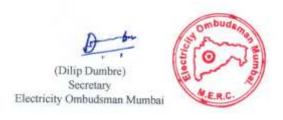
- (vii) After receipt of the order of the Forum, the Appellant waited for the final assessment bill as per the Forum's Order which was received by his representative who was unfortunately not available due to Covid 19 epidemic.
- (viii) After waiting for long period of 22 months, the Appellant decided to approach the subdivision office where he was given a big shock saying he need to pay



- Rs.46,76,586.67 which is the revised amount after decision / Order received from the Forum.
- (ix) The very next day, the Appellant approached the Forum by filing a review application as the assessment bill was not prepared as per final order from the Forum and they also received appointment for hearing for the same, but the concerned Subdivision officer was not able to attend the hearing twice.
- (x) Even after so much time wasted the concern Subdivision office sent us a revised assessment notice of Rs. 51,59,017.23. which was going to be debited in his energy bill of May 2021.
- (xi) Finally, the Appellant decided to approach the Electricity Ombudsman office for justice and relief from disconnection if disconnection notice is issued by concerned office of Addl. Exe. Engineer, Sarvodaya Subdivision.
- (xii) The Appellant states specifically as under:
 - a) Being a businessman, the Appellant does not know how electricity is measured in meter. Moreover, it is none of its concern and therefore simply rely upon the electricity consumption pattern on month-on-month basis and more particularly before and after replacement of meter. The assessing authority did not test the meter nor approached the meter manufacturer or National Accreditation Board for Testing and Calibration Laboratory (NABL) for any advice / Test report.
 - b) If the voltage in 1 phase of the meter is low (not '0' V) & high in other two phases (> '380' V) how should the energy be recorded / calculated?
 - c) The Appellant did not receive the MRI Data for the said 24 months of the recovery which is assessed as per the order of the Forum. Only a few days MRI report it does not held conclude the meter was OK or otherwise for entire 24 months or for few months.
 - d) After getting the average consumption of last 4 years there is no change in consumption pattern even before and after replacement of meter.
 - e) The Appellant cannot be billed for more than three months on average basis as per Regulation 15.4.1 of Supply Code Regulations 2005.



- (xiii) The Appellant prays for grant of justice with respect to assessment of recovery based on facts and circumstances of the case.
- 4. The Respondent MSEDCL filed its reply vide its letter dated 02.06.2021 stating in brief as under: -
 - (i) The Appellant, who is owner of Sandeep Bar & Restaurant is a LT Commercial Consumer (No. 022919053330) since 11.10.2005 having SL of 95 KW and CD of 119 KVA at Chandradarshan, M. G. Road, Mulund (West), Mumbai. The Meter No. 00417424 is of HPL make and was in service when the incidence occurred.
 - (ii) The Respondent's, Flying Squad inspected the premises of the Appellant on 04.04.2019. During inspection, the meter of the Appellant was tested by Accucheck and it is found that the meter is showing the error (-) 35.98 %. It means the meter is recording 35.98% less energy than what consumer have actually consumed. Therefore, the meter data of said consumer is retrieved for further detail analysis. While observing the MRI report of the meter, it is found that the event of missing and low voltage at R Phase is recorded in the meter since August 2016 and it was not restored till the date and time of inspection which is 04.04.2019. The meter was kept under observation at the installation only.
 - (iii) Meter was opened by flying squad in front of the consumer representative on 17.07.2019 and no tampering is observed inside the meter. Similarly X-Ray of the CT unit was taken. In this X-Ray also no tampering in the CT was observed. All this was witnessed by the consumer. Report to that effect in the form of Panchanama was drawn and signed by the consumer and the officers of the Respondent Flying Squad. Accordingly, the Flying squad Thane has submitted the report on 18.07.2019 with assessed consumption of 4,33,931 units as the meter recording 35.98% less consumption, to be recovered from consumer as R phase voltage was missing since 09.08.2016 till the date of meter replacement. The bill of Rs.72.18.340/- was issued to the consumer vide letter dated 31.07.2019.



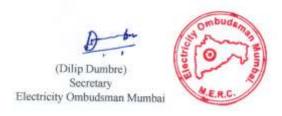
- (iv) On receipt of the bill of Rs.72,18,340/-, the Appellant approached IGRC on 07.08.2019 which heard the matter on 23.09.2019. However, on 09.10.2019 IGRC has issued the order and rejected the complaint.
- (v) The Appellant, therefore, filed the grievance with the Forum on 07.11.2019 (Case No.70). The Forum issued the order on 17.08.2020 allowing recovery of 24 months only instead of 36 months as proposed by the Respondent.
- (vi) According to the Forum's order the bill was revised to Rs.46,76,586/- for Aug-2017 to July-19. There was some mistake in assessment calculation and therefore bill was further revised to Rs.51,59,017/-.
- (vii) Appellant has filed review application with the Forum as the order was not complied by the Respondent. Subsequently the order was implemented without prejudice to Respondent's legal right to challenge the impugned order before the appropriate Court.
- (viii) The meter was not tested in NABL as there was no demand from the Appellant. The Appellant witnessed the meter test when it was opened and he was also present when the CT was X-Rayed for any tampering. It is also to submit that the Respondent has not found any tampering with meter or CT. Therefore, there was absolutely no need to send the meter to NABL or the Manufacturer. This matter was again raised at the hearing in Forum and the matter was again referred to testing division of the Respondent who also opined that under-recording in the meter is due to non-availability / very low voltage at R Phase and high voltages at Y and B Phase of the meter terminal. It further says that unbalance voltage affects the recording of consumption in the meter. The exact quote of the testing division in its letter No. 218 dated 30.01.2020 is as below.

"The unbalance voltage affects the recording of energy. Moreover, unbalance voltage is not only the cause of less recording of energy, as it depends on three factors i.e. Voltage, Current and Power factor. From MRI data it seems that this case is of floating neutral. Which may lead to wrong energy recording to meter. (i.e. Voltage & Power factor). Hence, it is also suggested to send this MRI and meter to respective Meter Manufacturer for further opinion."

(ix) The matter was further pursued with meter manufacturer, M/s. HPL through email. The manufacturer vide its email dated 07.05.2021 replied that the said meter is



- manufactured in January 2013 & load survey data KWH/KVA/KVAH is available in the meter but day wise voltage & current data parameters are not available.
- (x) The MRI data of the meter shows the event recorded in August 2016 is of low/missing voltage of R Phase and the same is not restored till the date of inspection by Flying Squad. However, there was high voltages at other two phases. Accordingly, this is treated as evidence for voltage missing for one phase and recovery from August 2016 was calculated by the Respondent.
- (xi) The consumption of Appellant, after & before replacement of meter, could not be considered for this case, being after replacement of meter there was lockdown due to Covid -19 epidemic and consumption of businesses like hotels are reduced drastically.
- (xii) MSEDCL Sarvodaya sub-division have only few manpower for PC '0' above 20 KW Consumers inspection but still verification and inspection of these consumers is carried out at least once in a year. Accordingly, the Appellant's site verification is done in Oct-2018. However, this abnormality was not seen recorded on meter display or at site.
- (xiii) Considering all above facts, it is humbly requested to reject the representation of the Appellant and allow the Respondent for the recovery proposed.
- 5. The hearing was held on 17.06.2021 by e-platform through video conferencing due to Covid-19 epidemic and conditions arising out of it.
- 6. The Appellant argued and reiterated its submission. The primary argument of the Appellant is that they do not know and understand intricacies of energy measurement. The equipment, meter at the premises is being regularly checked by the Respondent during their regular testing and the Respondent's officials visit the premises every month for meter reading. Therefore, it is difficult to understand and accept that the problem whatever, remained unnoticed by the Respondent for such a long period of approximately 36 months. The Appellant further argued that as a businessman they check range of monthly consumption. Prior to and after this so-called occurrence, consumption hardly change. It even did not change materially during the period of occurrence. Therefore, in its opinion there is no reason for the Respondent



to assess the consumption towards voltage problem as has been pointed out. Moreover, voltage problem low or high is on the Respondent's account and the Appellant does not have any role to play in it. In addition, the Respondent in its Report dated 16.10.2018 which has under the Head 'Irregularities observed' mentioned that the meter is accucheck and found okay. It further goes on to add under the head 'Result' + 16.24%. Therefore, it opposes the proposal of the Respondent to assess and add consumption for the impugned period.

- 7. The Respondent argued that the MRI data for a period from 11.08.2016 to till date of meter replacement shows that the voltage at the meter terminal was sometimes zero / low on R phase while it was high on other two phases. This happens when the 'Neutral' is floating at the premises. This situation disturbs the recording of the consumption in the meter. In this case meter was opened and checked in presence of the Appellant and no tampering for theft is noticed. Similarly, CT unit is also checked under X-Ray for any tampering, but here also no tampering was noticed. Therefore, it is not alleging anything like theft on the part of the Appellant. Hence, the billing as proposed by it may be upheld.
- 8. During the hearing, the undersigned directed the Respondent to provide KWH and MD data for period prior to alleged occurrence of the event and also post replacement of equipment, meter, if any. Similarly, the Appellant was directed to pay 10% of the assessed recovery which approximately comes to Rs. 5,00,000/-.
- 9. In pursuance of the directives, the Appellant paid Rs. 5,00,000/- on 22.06.2021 and the Respondent submitted the data along with note as to how the assessment is done which is duly signed by testing team and others on 09.07.2021.

Analysis & Ruling

10. Heard the parties and perused the documents on record. There is no dispute with respect to issues of required voltage availability of R Phase at the meter terminal installed at the premises of the Appellant. The voltage at 'R' Phase of the meter terminal was low enough to record it as a tamper event. Similarly, voltage at 'Y' and 'B' Phases was more than what was supposed to have been available as per the standards. This technical phenomenon is described



by the Respondent as a 'Floating Neutral'. The Respondent further says that this 'Floating Neutral' condition results in improper recording of KWh consumption. As per the Respondent, this occurrence, as per MRI data downloaded by it, started on 11.08.2016 at 23:58 hrs and continued till 12.07.2019 at 12:21 hrs. (almost 3 years). During the period 11.08.2016 to 21.04.2017, it intermittently occurred and restored and thereafter, it continued to be recorded as having occurred till 12.07.2019 (the date of downloading the data).

The Respondent therefore assessed the Appellant for under-recording of consumption from August 2016 till July 2019, for 36 months attributing to the Floating Neutral condition. This under-recording due to 'Floating Neutral' phenomenon, as per the Respondent, is to the extent of 35.98%. Inter-alia, it means that the meter recorded only 64.02% of energy consumed by the Appellant during the period of 36 months.

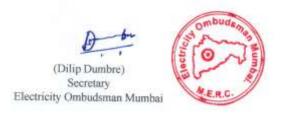
The Respondent issued the first bill on 31.07.2019 for the period from August 2016 to July 2019 for Rs.72,18,340/- towards assessment of 4,33,931 units considering under-recording of 35.98%. The Forum reduced the period of assessment to 24 months instead 36 months.

The Respondent plainly revised the bill for 24 months based on the assessed consumption of 36 months calculated by it. Considering 64.02% as recorded consumption of that particular month, the Respondent added shortfall of 35.98% consumption and achieved 100% consumption. The consumption from July 2015 to June 2016 and after June / July 2020 is tabulated below. It is presumed (as there is no specific submission of the Respondent) that between July 2015 to June 2016 and after June / July 2020, Floating Neutral condition did not exist.



Tabulation as per the Respondent's data																	
Month	Consumption		Initial Reading	Final Reading	Diff	MF-2											
Monthwise Consumption from August 2015 to July 2016 for healty period.						64.02% Consumpti on recorded & billed	Added 35.98% as assessment	Total consumption 100%									
									1	2	3	4	5	6 (5-4)	7 (6x2)	8	9 (7+8)
											* Apr-17	370730	380215	9485	18970		
											May-17	380215	390144	9929	19858		
	Jun-17	390144	402766	12622	25243												
Jul-15	39569	Jul-17	402766	413765	10999	21999											
Aug-15	21640	Aug-17	413765	424387	10622	21244	11939	33184									
Sep-15	20676	Sep-17	424387	435765	11377	22754	12788	35543									
Oct-15	31813	Oct-17	435765	447319	11554	23108	12987	36095									
Nov-15	17436	Nov-17	447319	458885	11567	23134	13001	36135									
Dec-15	18967	Dec-17	458885	467874	8989	17977	10103	28081									
Jan-16	17719	Jan-18	467874	479145	11271	22542	12669	35211									
Feb-16	12307	Feb-18	479145	487952	8807	17615	9900	27514									
Mar-16	20267	Mar-18	487952	499653	11701	23401	13152	36553									
Apr-16	23299	Apr-18	499653	509542	9889	19778	11115	30893									
May-16	22876	May-18	509542	523229	13687	27374	15385	42759									
Jun-16	22154	Jun-18	523229	536278	13049	26098	14667	40765									
Total	268724	Jul-18	536278	549083	12805	25610	14393	40003									
Avg	22394	Aug-18	549083	560111	11028	22055	12395	34450									
		Sep-18	560111	571290	11179	22359	12566	34924									
		Oct-18	571290	583447	12157	24313	13664	37978									
		Nov-18	583447	596199	12753	25505	14334	39839									
		Dec-18	596199	607859	11660	23319	13106	36425									
		Jan-19	607859	618393	10534	21069	11841	32910									
		Feb-19	618393	627949	9556	19112	10741	29853									
		Mar-19	627949	637311	9362	18725	10523	29248									
		Apr-19	637311	647681	10370	20740	11656	32396									
		May-19	647681	658047	10366	20732	11652	32384									
		Jun-19	658047	671377	13330	26660	14983	41643									
		Jul-19	671377	681347	9970	19939	11206	31145									
		Aug-19	681347	681347	30000	-	ed on 17.07.20										
		Sep-19	0	31748	7349	consumption for comparise		19 are irrevelan									
		Oct-19	31748	50812	19064	1											
		Nov-19	50812	70642	19830												
		Dec-19	70642	90404	19762												
		Jan-20	90404	110312	19908												
		Feb-20	110312	126512	16200	1											

From the above table, it is seen that consumption per month for the period July 2015 to June 2016 (prior to occurrence of Floating Neutral) ranges from 12307 units (lowest-February 2016) to 39569 units (highest July 2015) with average consumption per month of 22394 units. Here, July 2015 consumption of 39569 units appears to be high but it is not so as the



consumption for June 2015 does not appear to have been recorded properly despite the substantial demand. Similarly, consumption for the period August 2019 to February 2020 barring August and September 2019 where readings are not properly taken (post meter replacement) is in the range of 16200 units (lowest February 2020) to 19908 units (highest January 2020). Therefore, consumption during two healthy periods prior to and post occurrence are in a comparable range.

There is no explanation from the Respondent as to why consumption before and after occurrence does not match at all with the monthly consumption arrived at, after adding the assessed (under-recorded) consumption due to Floating Neutral. It has not been brought on record, the changes in load, if any, by the Appellant before and after the occurrence of the Floating Neutral and further, during the occurrence also. Therefore, assessing the Appellant only on the basis of accucheck finding during inspection by the Flying Squad and arriving at the conclusion that it is under-recording 35.98% without understanding the entire issue, studying technically the effect of Floating Neutral, and further without developing any mathematical engineering model supported by phasor representation or any computerised software based simulation is not only incorrect but vitiates the entire process. The Respondent appears to have treated the entire case as if R Phase voltage is missing during the impugned period and without understanding the fact that the voltages at Y and B Phases were high simultaneously. Technically speaking, the Floating Neutral condition and missing R Phase voltage are squarely different conditions and therefore, need to be treated differently.

It is very important to note the observation of the Testing Engineer in his letter No. 218 dated 30.01.2020 which is reproduced below: -

"The unbalance voltage affects the recording of energy. Moreover, unbalance voltage is not only the cause of less recording of energy, as it depends on three factors i.e. Voltage, Current and Power factor. From MRI data it seems that this case is of floating neutral. Which may lead to wrong energy recording to meter. (i.e. Voltage & Power factor). Hence, it is also suggested to send this MRI and meter to respective Meter Manufacturer for further opinion." (Emphasis added)

The above quote does not specifically point out whether the meter will be recording less or more consumption in the Floating Neutral condition. It further recommends that the matter be referred to the Manufacturer of the meter. On being referring the matter, the Manufacturer



informed by its email dated 07.05.2021 15:48 hrs. that "Day wise Voltage & Current parameters are not available in the said meter. Only three parameters are available in block load survey KWh, kVa & kVAh."

Moreover, in a Floating Neutral condition when one phase gets low voltage, other two phases get high voltages. This Floating Neutral condition is dynamic and may not remain static throughout the period and depends on the loads in the respective phases. Basically, this Floating Neutral condition is due to various reasons, such as mechanical contacts, chemical corrosion, and bad workmanship either at the source side or at the consumer side. This aspect does not appear to have been looked into by the Respondent. Moreover, there is no submission as to how this issue has been resolved post replacement of meter. Therefore, conclusion of the Respondent that the meter is 35.98% slow has no meaning as the entire technical analysis has not been done as explained above, and it has not been conclusively proved that Floating Neutral condition necessarily culminates into recording of low consumption. This is more so important in view of the observation of the Testing Engineer quoted above.

The entire event has gone into controversy and turned the table by the so-called "Spot Inspection Report of consumer's Electrical and Metering Installation" dated 16.10.2018 which recorded that phase to neutral voltages are Vr-n 232.9, Vy-n 232.4, and Vb-n 236.9 volts, and further recorded the remark under the head 'Irregularities Observed' that "*Meter is accuchecked & found OK. Result* +16.24%." On further scrutiny of this report, it is observed that KWh final reading shown in the above table for October 2018 does not match with that given in the inspection report.

If this inspection report is to be believed which has been relied upon by the Appellant and has also been mentioned by the Respondent, then how come the KWh reading (summation of all zones) recorded in this report does not match with the CPL. Similarly, the R phase to neutral voltage recorded in the Spot Inspection Report as 232.9 volts does not match with 119.83 volts at 09:20 hrs. of 21.04.2017 in MRI and continued thereafter and treated as a tamper event. Therefore, this report raises many questions than it answers. The Respondent ought to take a serious call on this.

11. My other important observations in this case are as follows:



(i) In a Floating Neutral condition, when a particular phase records low voltage between phase and neutral, the other two phases records high voltage equivalent to phase to phase voltage. These conditions vary dynamically depending upon loads in three phases.

(ii) It is, therefore, a matter of curiosity and scrutiny as to why any single phase electrical equipment such as mixer, grinder, tube lights, Air Conditioners connected at the premises are not damaged which is normally the first casualty in the Floating Neutral condition, and further, there is no report about any electrical accident at the premises during the impugned period.

(iii) If what the Respondent assessed is assumed to be correct, then there is no explanation to the incomparable consumption recorded and billed before and after the impugned period. The Respondent failed to throw any light on it except submitting that its past consumption should not be considered while deciding the case.

In view of the above discussion, I do not agree with the conclusion of the Respondent that the meter recorded 35.98% less consumption due to Floating Neutral. The Respondent has gone overboard and treated this condition of Floating Neutral similar to total absence of PT voltage of one of the phases throughout the period of assessment which is technically incorrect.

12. While parting with the order, I direct both the parties to check the connection of Neutral terminal in their respective domain. I further direct the Respondent to record phase to phase and phase to neutral voltages once in a week for a continuous period of two months in presence of the Appellant and findings to be reported immediately thereafter.

13. The Representation is, therefore, allowed and disposed of accordingly and the Forum's order is set aside. Other prayers of the Appellant are rejected.

14. The secretariat of this office is directed to refund an amount of Rs.25000/- deposited by the Appellant.

Sd/-(Deepak Lad) Electricity Ombudsman (Mumbai)

