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APPEAL PETITION No. P/073/2018
(Present: A.S. Dasappan)
Dated: 23rd November 2018

Appellant	:	Sri. Alex Antony Digital House, TC No. 14/2071-3, Vanrose Junction, Palayam, Thiruvananthapuram
Respondent	:	The Assistant Executive Engineer, Electrical Sub Division, KSE Board Ltd, Puthenchantha, Thiruvananthapuram

ORDER

Background of the case:

The appellant is having a three phase electric connection with Consumer No. 9329 of Electrical Section, Cantonment for running an establishment in the name and style "Digital House" under LT IV A industrial tariff. While so on 10-08-2017, the APTS of KSEBL conducted an inspection in the premises and found that an unauthorised connected load of 13983 watts in the premises and also detected dissimilar phase association of current and voltage at the terminal of ToD meter installed in the premises. Accordingly, the appellant was served with a short assessment bill, assessing for a period of 53 months (3/2013 to 7/2017), when the meter was found recording 30% less than the actual, so as to recover the unrecorded portion of energy, for Rs. 4,11,698/-. The consumer filed objection before the Assessing officer, the Asst. Engineer, against the said assessment. The Assistant Engineer has revised the bill to Rs. 2,11,475/- for a period of 24 months. Being not satisfied with the decision of the Assistant Engineer, the consumer approached the CGRF, Kottarakkara, with Petition No. OP 48/2018 and the Forum disposed of the petition, vide order dated 13th July 2018, stating that as per Reg. 152 of Kerala Electricity Supply Code, 2014, the licensee can realize the loss sustained.. But preparation of short assessment bill based on the Reg. 125 of Kerala Electricity Supply Code, 2014 is not correct since Reg. 125 shall apply only for billing in the case of defective or damaged meter".

The Assistant Engineer had again revised the bill to Rs. 89,992/- for a period of 24 months. Aggrieved by the decision, the appellant has submitted the Appeal petition before this Forum.

Arguments of the appellant:

1. Appellant is engaged in digital printing and allied activity in the above address with name and style "Digital house" with consumer No. 9329 under the geographical jurisdiction of Electrical Section Cantonment, (KSEBL) Thiruvananthapuram under LT IV A demand based tariff. The present ToD meter at the premises was installed at the premises on 04-12-2012. However; bill for electricity charges at demand based tariff was never issued from the subsequent month and it started only much later. Every month a Sub Engineer of the licensee inspected the meter and read it. At times, the Assistant Engineer also visited the premises for inspection and check reading as informed by him. Both of them never ever informed any anomalies either at the premises or in the meter while both of them were bound for that. The appellant had remitted electricity charges as per the bills issued and no arrear is outstanding.

2. Mr. K.T. Prabha, Sub Engineer, Electrical Section Cantonment in the presence of the Anti Power Theft Squad, Thiruvananthapuram of KSEBL inspected the premises dated 10-08-2017 and prepared a mahassar despite having regular inspection every month at the premises by a Sub Engineer and occasional inspection by the Assistant Engineer. The identity of the above persons who were in the inspection team was known from the mahassar only which was delivered to the appellant. None of the persons who were in the inspection team never revealed their individual identity or the intent of their visit as required under Clause 173 of Supply Code, 2014, and they simply said, "We are from KSEBL". No individual witnesses were available there during the inspection as required and such persons have not signed the mahassar under their hand and name with full address revealing their identity as required under Clause 173 (9) of Supply Code 2014. The reason for the absence of such independent witness during the inspection is also not recorded in the mahassar. All the statutes under Electricity Act, 2003, are binding up on the appellant as well as on the licensee equally. The mahassar is an one sided version, conveniently created for the convenience of the licensee to shield it and its employees' involvement in supplying electricity through an alleged incorrect meter if it is incorrect, violating Section 55 of Electricity Act, 2003 and to inconvenience this appellant. There by the mahassar is biased. On the grounds, any action taken by the licensee basing the mahassar is illegal. The inspection team or the Sub Engineer was neither an NABL accredited laboratory nor the test on the meter said to be done was never conducted as required under Clause 18 (2) of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006.

Since the testing of the meter was never conducted are required under statutes above, the crude test said to be conducted and such reports made under the mahassar has no relevance at all. Moreover, copy of report of such test and calibration said to be done and CMRI down loaded data were never delivered to the appellant, for him to challenge and to request for a test at an NABL accredited laboratory of his choice. There by, the findings recorded in the mahassar, test & calibration report if any and down loaded data if any are not at all acceptable to the appellant and any assessment based on this mahassar is also not acceptable under law to the appellant.

3. The Assistant Engineer issued an assessment as under charged bill along with a bill for Rs, 4,11,698.00, dated 31-08-2017 against which, the appellant filed a statutory dispute under Clause 130 of Supply Code, 2014. The appellant is unaware of such inspection, no copy of mahassar was ever communicated to the appellant, and therefore it is false. The reason stated under the assessment is incorrect phase association of current and phase voltage in the meter and it is pleaded that, 30% of energy actually used has been escaped from recording in the meter. In a high precision three phase electronic ToD meter reduction in recording of actual consumption will never occur due to incorrect phase association of current and voltage as per the technology adopted in it. Therefore, the assessment issued for compensating such alleged reduced recording of consumption is unwarranted and illegal.

4. The licensee issued a revised assessment dated 22-02-2018 after lapse of six months along with a bill for Rs. 2,11,475.00. In this assessment order also, incorrect phase association and escape of 30% of actual consumption is stated as reasons for the assessment. In the mahassar and in the wiring diagram of the meter attached with the mahassar, it is stated that in the terminal block at which CT output from the first phase is connected to the terminal block with voltage from the second phase, and in the next terminal block at which CT output from the second phase is connected to is connected with voltage from the first phase. There is no allegation that the seals of the meter are tampered with and hence interference of this appellant with the meter is eliminated. This meter was connected at the premises on 04-12-2012 under the supervision of a Sub Engineer and he had energized the service as required under statutes. Also he is the authorized person of the licensee to check the correctness of the meter and to take actions to supply electricity through correct meter under the administrative orders of the licensee.

5. Thereby, chance to occur this error in connection in the meter of this type is seldom. If it has occurred so, the licensee supplied electricity through an alleged incorrect meter in violation of Section 55 of the Electricity Act, 2003. Hence, the Sub Engineer who installed the meter and Sub Engineer/ Sub Engineers and Assistant Engineer/ Assistant Engineers who visited the premises after 04-12-2012 for checking the meter and to read, and the Assistant Engineer/ Assistant Engineers who inspected the premises and also who have not inspected

and who are mandated to inspect the premises from 04-12-2012 are equally responsible for the violation of statutes under Electricity Act, 2003 and for the alleged revenue loss if sustained due to erection of alleged incorrect meter at the premises and for remaining it undetected for a very long period and in that matter this appellant is least responsible. Thereby, if any lapses occurred in this case causing revenue loss as alleged, the onus for it rests with the above employees of the licensee and it has to be realised from them alone and not realizable from this appellant for want of enabling regulations in this instant case.

6. Under the mahassar and under assessment order it is stated that the meter was tested and calibrated at site. However this claimed test and calibration was never done by an NABL accredited laboratory as required under Clause 18 (2) of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006. Therefore, the pleading of the Assistant Engineer that, the meter was tested and calibrated at site on 10-08-2017 under assessment order is not acceptable in the light of statutes under Electricity Act, 2003 and agreement in between the appellant and the licensee.

It is further stated under assessment that, after correcting dissimilar phase association the consumption between the period of 01-08-2017 to 17-08- 2017 i.e. period before correction and the consumption for the period from 17-08-2017 to 29-08-2017 i.e. after correction was compared and error of –30% was observed and hence arrived at a conclusion meter registered less consumption from 09-03-2013. It is also stated that as per the downloaded data of the meter, the said error in meter occurred on 09-03-2013. However, since copy of such down loaded data is not delivered to this appellant, this appellant is helpless to make comment on it. Even then, it is submitted that, ever since after providing this electric connection, there is no allegation upon this appellant that he has interfered with the meter. If this incorrect phase association occurred on 03-09-2013 it might have been caused by the licensee clandestinely by changing the connection and for that, the appellant is not at all responsible. The consumption for very short period in between 01-08-2017 to 17-08-2017 and 17-08-2017 to 29-08-2017 is said to be compared for arriving at the alleged short fall in recording consumption and it is taken as the base for this assessment. However, such reading on 01-08-2017, 17-08-2017, and 29-08-2017 were never taken in the presence of the appellant, such consumption during the periods was never convinced to the appellant, and the appellant never accepted it. Also there is no record in the meter reading register for a reading dated 29-08-2017. It is not known how, why and based on which regulation this Assistant Engineer could take such a very shorter period for an assessment. In the case of normal billing the billing periods are well defined and informed to this appellant well in advance. As per the available regulation under Supply Code, 2014, the standard for comparing such consumption shall never be less than the average of three billing cycles as decided under Clause 125 of Supply Code, 2014 or the consumption for the similar periods of the previous year as proposed under the

same Code. No other shorter period for assessment is proposed in statutes under Electricity Act, 2003 and the licensee is not at all entitled to take 10 days consumption for comparison for an assessment for a period of two years or any other periods.

Further under assessment orders it is stated that the assessment is made under Clause 134(1) and 152 of Supply Code, 2014. Time and again the Hon: High Court of Kerala and Hon: Electricity Ombudsman have categorically stated and ordered that Clause 134(1) is not an enabling regulation to make an assessment on the allegation that, the meter was incorrect / defective for some periods. Also, Clause 152 of Supply Code, 2014 never apply for an assessment in the allegation of incorrectness of a meter since incorrectness in meter never include among anomalies attributed to licensee at the premises of a consumer or defect in metering as detailed under Clause 152 of Supply Code 2014. To supply electricity always through a correct meter is unflinching universal obligation of the licensee under Section 55 of Electricity Act, 2003. Since the onus for violating the law above, rest with the licensee, detect incorrectness in a premises meter never include deficiency in metering is not an anomaly defined under Clause 152 of Supply Code, 2014 but an offence in the eve of law. Also, the licensee, in the light observing misusing of Clause 134 & 152 of Supply Code, 2014 by its subordinate employees for the purpose for which it is created and hence causing grievance to consumers in assessment for incorrectness of meters etc, it has issued an administrative order as a circular notifying all vide No. D (D&S) D2/Gel-08/2015 Dated 25-02-2016. In that administrative order, among other things have explained the gambit of application of Clause 134 of Supply Code, 2014 and explained which falls under the term undercharged /overcharged under para (3) (b) (1) and what falls under Clause 152 of Supply Code, 2014 specifically defining inaccuracies in metering also under para 3(d) of the same Circular. Therefore, this assessment under Exhibit P4order and Exhibit P5 bill are totally illegal and are product of insubordinations of the administrative order of the licensee.

7. The appellant bound to pay only "an amount due" towards electricity charges decided under the statutes annexed with or considered to be annexed with an agreement but not any amount decided by the licensee or its subordinates arbitrarily. It also means that "an amount due" towards electricity charges is only to be paid by a consumer as fixed by the State Regulatory Commission either under supply regulations or under tariff. In this case, the amount demanded is not at all "an amount due" towards electricity charges since no statutes under Electricity Act, 2003, or Supply Code, 2014 entitles, or enables this Assistant Engineer to issue such a demand.

8. The Assistant Engineer also stated that, "the meter being an electric/mechanical or electromechanical are likely to develop faults-or go malfunctioning in course of time due to various reasons". Here the meter is none of the above and it is an electronic meter, and hence it makes a lot of

difference in many ways. More over in this case, the alleged incorrectness in meter was never created by passage of time or tear and wear but created by the licensee if it is there, violating Section 55 of Electricity Act, 2003. This issue risen by the Assistant Engineer above, has been taken care of under Clause 113 of Supply Code,2014, Clause 14, 15, 17 & 18 of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, the licensee by delegating and entrusting the monthly meter reading up on a Sub Engineer in this case who is also the same official authorized to energies this three phase connection and further the licensee entrusting the Sub Engineers to watch the meter and take appropriate actions to declare the meter as faulty (if necessary) and in that case to report to the Assistant Engineer immediately for replacement of meter. There is no case for this Assistant Engineer that such a Sub Engineer inspected the meter only on 10-08-2017 and never before that. In addition to that, Clause 125 is included under Supply Code, 2014 to bill in case a meter is found incorrect for not losing revenue due to incorrectness in the meter subject to conditions under the same regulation. Therefore, the statement of the Assistant Engineer that it is taken care of under Clause 134 of Supply Code, 2014 is incorrect and illegal in the light of the discussions above also.

In electronic ToD meter, the voltage and current are converted separately from analog to digital signals and then computed along with real time clock. It also consist auto calibration techniques and thus the power and energy measurement is neither effected by the analog nor the sampling inaccuracies. This is capable of doing complex calculations in simpler way due to the use of digital signal processors. The working principle of an electronic meter is entirely different from the working of electromechanical meters.

An electronic meter can be explained in brief as here under.

There are three fundamental sections in an electronic energy meter which are (1) analog signal processing and acquisition, (2) digital signal processing, and (3) conversion and power supply unit.

(1) Analog signal processing and acquisition: is composed of two programmable gain amplifiers. Each amplifier is used as the front-end of the voltage and current channels. The inputs of both amplifiers must be low-level voltage amplitude and the line voltage and load current must be previously attenuated and conditioned. The output of each amplifier is acquired by an analog-to-digital (A/D) converter based on a sigma-delta conversion supplying 16-bit resolution

(2) Digital signal processing and conversion: is the main block of the energy processor. As the central part, there is a multiplier that processes the digitalized voltage and current signals. The current channel has an additional phase correction block that compensates for the phase when the load has a strong inductive component, and it has a digital high-pass filter to reject possible

offsets. The output of the multiplier is proportional to the instantaneous power delivered to the load and, once it has been low-pass filtered, a signal proportional to the active power is obtained. Finally, the digital-to-frequency converter outputs a signal with a frequency that indicates the active power and is prepared to interface easily with electromechanical or digital counters (energy registers).

(3) Power supply unit: is the part of the processor that provides the energy needed by the analog and digital units. Specifically, there is a 2.5 V '' precision reference voltage used by the A/D converters and, if needed, by the external conditioning electronics. Electronic meters measure energy using highly integrated components or other customized integrated circuits. These devices digitize the instantaneous voltage and current via a high-resolution sigma-delta ADC.

After that, the product of the voltage and current computed gives the instantaneous power in watts. In other words in an electronic energy meter current and voltage are converted separately to digital signals by means of analog-to-digital converters (ADCs) interfacing to the MCU as shown in block diagrams above. The MCU samples the voltage and current in real time by using a dedicated power meter integrated circuit and the sampling voltage, current signals were processed, and then output is given in the way of pulse. The result is displayed through the meter LED or digital LCD. Here, the Voltage measurement is done with a shunt resister while, the current measurements require more precise measurement and thus are done by Current Transformer (CT) on all phases along with current measurement on neutral. Thereby, two basic sensors are employed in electronic meters. These are voltage and current sensors. The voltage sensor built around a step down element and potential divider network senses both the phase voltage and load voltage. The second sensor is a current sensor; this senses the current drawn by the load at any point in time. It is built around a current transformer and other active devices (such as voltage comparator) which convert the sensed current to voltage for processing. The output from both sensors is then fed into a signal (or voltage) conditioner which ensures matched voltage or signal level to the control circuit, it also contain a signal multiplexer which enable sequential switching of both signal to the analogue input of the peripheral interface controller (PIC). The control circuit centered on a PIC integrated circuit. The PIC is selected because it contain ten bit analogue to digital converter (ADC), very flexible to program and good for peripheral interfacing. The ADC converts the analogue signals to its digital equivalent; both signals from the voltage and current sensors are then multiplied by the means of embedded software in the PIC. Here the error correction is taken as the offset correction by determining the value of the input quality with short-circuited input and storing this value in the memory for use as the correction value device calibration. The PIC is programmed in C language. Such that apart from the multiplier circuit it simulates, it is able to use the received data to calculate power consumption per hour. These are displayed on the liquid crystal display attached to the circuit.

As per the scientific data above, dissimilar phase voltage and current are connected at the terminal! block of a three phase electronic ToD meter will never affect the correctness of the meter or never affect recording actual consumption and also due to anti theft provisions incorporated with it, effect of other wrong terminal connections are also eliminated . The contention of the Assistant Engineer otherwise to issue the bill is incorrect. The scientific theory behind electromechanical meter is never similar with an electronic meter explained above. In an electromechanical three phase meter three current coils and pressure coils are provided and it creates a torque on metallic discs mounted on a spindle resting on jewels in three Watt meter method. The rotation of the disc is calibrated, causing the measurement of energy and further recorded in digits or by pointers like in clocks. This energy recorded is based on RMS value of the components causing torque in the meter. Here, un-similar phase association in voltage and current coil that the current coil is fed from one phase and the pressure coil is fed from another phase, the sinusoidal current and voltage will be 120 degrees electrically apart, and that will affect the torque created and hence the rotation of disc will be sluggish or may even drag and hence result in reduced recording of consumption than actual. How ever. it never occurs in an electronic meter since the pressure component and the current component are first converted from analog to digital signals separately and then computed and these also is based on instantaneous values. Thereby, dissimilar phase association of current and voltage at the terminal of a three phase electronic meter never affect computing and recording of actual energy consumed. Hence, the claim of the Assistant Engineer who issued Exhibit P4 assessment and Exhibit P5 bill that due to association of different phase current and phase voltage in the meter caused reduced recording of consumption than actual by 30" n have no base at all or else the Assistant Engineer shall prove that this ToD meter at the premises of this appellant is working under different principle than internationally accepted principle under which electronic meters are manufactured and this meter does not have anti theft facilities incorporated in it as explained earlier, even it is proved so, the amount under Exhibit P4& P5 demand is not at all payable by this appellant as averred above. On the grounds, the allegation that the meter recorded 30@ o less than actual consumption is nothing but a wild guess without proper understanding of technology incorporated in electronic ToD meters and facts.

9. After filing the complaint OP. No.48/2018 before the CGRF, the Assistant Engineer issued a revised bill for Rs. 89,992.00. The bill is claimed to be issued basing Regulation 125 of supply Code, 2014, and it is for a period of two years from 09-2015 to 08-2017. The subsequent consumption after the inspection dated 10-08-2017 is taken for assessment. As submitted earlier this being an electronic meter it has no effect in recording actual consumption even if incorrect phase association of voltage and current occurs. Having said that, assessment under Regulation 125 shall never be issued for a period of two years. At any rate it can be only for two billing cycles immediately after detecting the meter

defective. Here in this case the oppose parties' case is that, defect in meter was detected on 10-08-2017 and rectified it on the spot. Thereby, no assessment is required. If the plea of the opposite party that defect occurred while shifting the meter dated 09-03-2013 is accepted, which is only a presumption but not based on any scientific finding, the assessment shall be based on the consumption before 09-03-2013, when the meter was not defective. Then the average of three billing cycles before 09-03-2013 shall be charged for two billing cycles only for the period after 09-03-2013.

Electronic ToD meter will record correct consumption even if dissimilar phase association of current and voltage occurs. The electronic meter works under a different principle and the theory of function of electro mechanical meter cannot and shall not be applied on electronic meters and shall never be pleaded that due to dissimilar association of voltage and current, the meter recorded 30% less consumption and if pleaded it is wrong, un scientific and illegal.

Nature of relief sought for:

1. To hold and declare that the short assessment bills amounting to Rs. 89,992.00 is illegal and to quash it.
2. To issue orders to pay such amounts this Authority may find appropriate towards the expenses for this appeal.
3. Such other reliefs the appellant prays for, during the course of appeal.

Arguments of the respondent:

1. That the Appellant. Sri Alex. P. Antony is running an establishment in the name and style "Digital House" under the geographical jurisdiction of Electrical Section Cantonment. The appellant is provided with a three phase service connection with consumer number 9329 for a registered connected load of 44685 Watts. Digital printing and allied activities were being carried out in the premises and so Industrial tariff was allotted. The appellant had opted demand based tariff for billing and a CT operated ToD meter was installed in the premises for the purpose on 04.12.2012 and the meter was shifted on 9/3/ 2013 based on the request of the Consumer.

2. While so. Sri K. T Prabha, Sub Engineer. Electrical Section Cantonment along with the officials of APTS, Thiruvananthapuram unit inspected the appellant’s premises on 10.08.2017. During the inspection, an unauthorized connected load of 13983 Watts was detected in the premises over and above the registered connected load. In addition to this, dissimilar phase association of current and voltage was also detected at the terminal of the ToD meter installed at the appellant’s premises.

3. During inspection, it was found that 2 Nos. of terminal cover seals of the CT meter were kept intact. MRT seals (3 Nos.) and CT box seals were seen in position, except the meter box seal. There is no allegation that the appellant has engaged in meter tampering.

4. The CT meter with ToD facility was installed on 04. 12. 2012. The invalid phase association observed during the inspection might have happened while shifting the meter on 09-03-2013. This is evident from the meter data downloaded from the meter. The downloaded meter data indicates a sudden dip in consumption from 09.03.2013 onwards.

5. That, the current terminals of R phase CT were wrongly connected to the B - phase current terminals of the CT meter. Also, the current terminals of B phase CT were wrongly connected to the R phase current terminals of the CT meter. This invalid phase association will result in erroneous recording of energy consumed by the appellant.

6. Vector diagram with incorrect phase association

Y phase voltage lead is wrongly connected to the B phase terminal of the meter and B phase voltage is wrongly connected to the Y phase terminal of the meter. R phase voltage is correctly connected to the R phase terminal of the meter.

Here, R phase element of the meter gets voltage V_R and current I_R, with a phase difference of ø°. Y phase element of meter gets voltage V_B and current I_Y with a phase difference of (120 – ø°)". B phase element of the meter gets voltage V_y and current IB with a phase difference of (120 + ø)°.

The meter will not record the actual power consumed, even if the voltage and current are the same in all the three phases. The power consumption recorded by the meter will be less than the actual and will also depend on the phase angle between the voltage and current.

7. That several anti tampering features have been incorporated in the CT meters with ToD facility now available in the market. These meters are programmed to detect and report tampers such as reverse current, load through local earth, missing potential, current circuit open, current circuit by-pass, magnetic influence, front cover open etc. These tampers are reported along with date and time of occurrence. Input voltage and current in each phase and the neutral current are continuously monitored for detecting such tampers. There is no provision in these meters for recording the actual consumption whenever such tamper occurs, except during reverse current tamper.

8. Since, it has been proved beyond doubt that the meter has recorded less than actual, the licensee can recover the amount so undercharged from the consumer as per Regulation 134 (1) of Kerala Electricity Supply Code 2014.

9. As mentioned earlier, the invalid phase association might have happened on 09-03-2013, when the metering equipments were shifted. This anomaly was attributable to the licensee. Regulation 152 of Kerala Electricity Supply Code 2014 deals with such situations.

The consumer may be given installment facility by the licensee for a maximum period of twelve months for the remittance of such amount of short collection with interest at the bank rate as on the date of remittance of the amount of installment.

1. As per the proviso in Regulation 152 (3) of Kerala Electricity Supply Code 2014, realization of electricity charges due to the anomalies attributable to the licensee is limited to a maximum period of 24 months, even though the invalid phase association might have happened on 09-03-2013.

2. That the Assistant Engineer. Electrical Section Cantonment had calculated the short collected energy charge after analyzing the energy recorded by the CT ToD meter before and after rectifying the anomaly. The error was calculated as 30%. A short assessment bill for an amount of Rs. 4,11,698/- was issued to the appellant on 30 08 2017 for a period of 3/2013 to 7/2017 (i.e. 53 months) based on the error calculated. After hearing the consumer, the Assistant Engineer revised the bill on 22-02-2018 to Rs.2,11,475/- for the period from 8/2015 to 7/2017 (i.e. only for 24 months), based on the error calculated. The period of assessment was revised from 53 months to 24 months.

3. That the short assessment bill and the revised bill issued by the Assistant Engineer are not in accordance with the regulations in force. The recording of meter was erroneous right from the date of shifting of the CT ToD meter: i.e. from 09-03-2013 onwards. It has continued up to 17.08.2017, the date on which the anomaly was rectified. There is no way to calculate the actual loss suffered by KSEBL during this period. The only way to assess the consumption during the erroneous period is by adopting the method mentioned in Regulation 125 of Kerala Electricity Supply Code 2014.

4. The anomaly has happened from the very first day of shifting of the CT ToD meter i.e. on 9.3.2013. The average consumption immediately preceding this date can not be taken for calculation since the mode of billing was not under ToD during that period. So the average consumption can only be determined based on the consumption for the three billing cycles after the anomaly was rectified which is justifiable.

The average consumption after rectification:

Normal period	:	3092 units
Off peak period	:	67 units
Peak period	:	676 units

The recorded consumption for 24 months (during 8/2015 to 7/2017)	-	80840 units.
The consumption for 24 months with new average	-	92040 units
Balance units to be billed	-	11200 units
Balance amount to be realized	-	Rs. 89,992/-

Analysis and Findings: -

The Hearing of the case was conducted on 11-10-2018, in the Conference Hall of CGRF, Kottarakkara. Sri. Anandakuttan Nair represented the appellant's side and Sri. Aneesh V.A., Assistant Engineer, Electrical Section, Cantonment represented the respondent's side.

On perusing the Appeal Petition, the counter of the Respondent, the documents submitted, arguments during the hearing and considering the facts and circumstances of the case, this Authority comes to the following findings and conclusions leading to the decisions there of.

The APTS has inspected the consumer's premises on 10-08-2017 and found that dissimilar phase association of current and voltage at the terminal of the ToD meter installed at the premises, thus resulting in the recording of a lower consumption than what is actually consumed. Hence, the appellant was issued a short assessment bill to recover the energy escaped from billing due to this meter inaccuracy. The CGRF has observed that the short assessment bill issued by the respondent is genuine and sustainable but preparation of short assessment bill based on the Reg.125 of Kerala Electricity Supply Code is not correct.

Normally, the respondent is bound to rectify the defect of the CT's to the Meter or renew the CT's or the CT meter itself, if it is found defective/faulty, after informing the consumer. The consumer was assessed for Rs. 411698/-, for non-recording of energy due to the connection of CT's wrongly, for a period from 3/2013 to 7/2017, by taking the lost energy as 30% of the recorded energy. It is revealed from the site mahazar that the current terminals of R phase CT were wrongly connected to the B phase current terminals of the CT meter and the current terminals of B phase CT were wrongly connected to the R phase current terminals of the CT meter. This invalid phase association is the cause for erroneous recording of energy consumed by the appellant and energy loss.

The appellant has contended that if the failure of the CT connection was from 03/2013 onwards as assumed by the licensee, it could be easily found out by the Sub Engineer who had taken the monthly readings regularly. Since it was not reported by the Sub Engineer during the meter reading, the period of failure cannot be established. According to him, "Inaccuracies in metering" means only accurate meter reading is not taken or the meter reading is erroneous and hence billing is erroneous or billing is erroneous in some other way. "Inaccuracies in metering" cannot and shall not be translated to defect in meter. If "inaccuracies in metering" also meant defect in meter, or improper recording of consumption due to some imperfection, fault in any of the components of the meter, there was no need for the KSERC to bring in Clause 125 of Supply Code, 2014, exclusively for the case of "defective or damaged" meter in which, the method of billing for defective period etc are well explained.

Further the appellant also contended that Regulation 134 (1) of Supply Code, 2014 is not at all applicable in this case of meter defective case. According to the appellant, this provision applies in only a case where the KSEBL has under charged the consumer which means that the meter has recorded the actual consumption, but the licensee has not realised its charges accurately. It is stated that this provision not deals with a situation where the meter is inaccurately recording the energy consumed on account of a wrong connection given to the meter.

The appellant has also contended that no individual witnesses have not signed the mahassar under their hand and name with full address revealing their identity as required under Clause 173 (9) of Supply Code 2014. The appellant has stated that he is unaware of the inspection conducted by the APTS and copy of mahassar was never communicated to the appellant. According to the appellant, in a high precision three phase electronic ToD meter reduction in recording of actual consumption due to incorrect phase association of current and voltage will never occur as per the technology adopted in it.

Refuting the above contentions, the respondent has averred that the total period of phase failure was obtained while downloading the meter. The respondent relied upon the down loaded data and consumption pattern for establishing the period of phase failure and missing of current. According to him, the dip in consumption from 03/2013 is the result of the incorrect phase association. It is submitted by the respondent that the meter installed in the premise is not reported as defective or damaged. Under charging of prior bill is established due to an anomaly detected at the premises for which Kerala Electricity Supply Code, 2014 Regulation 134(1) is applicable.

The issue arising for consideration in this appeal is whether the period assessed and the quantum of energy loss computed are in order and the

appellant is liable for the payment of short assessment for Rs. 89992/- as per Regulation 134(1) and 152 of Supply Code, 2014.

Here in this case, the respondent declared that the invalid phase association was detected in the inspection conducted in the premises on 10-08-2017. The data is downloaded on 10-08-2017 itself by the APTS. The meter will record the time and date of tampers, and the same can be downloaded using MRI/Laptop and can be analyzed. Date of occurrence of CT open/bypass/short, voltage missing/low voltage/unbalance etc can easily be found out using downloaded data. It is also found that the consumption of the appellant before and after the disputed period and during the disputed period is not in a consisting pattern.

On perusing the Mahazar, this Forum feels that the contention regarding the defects noticed during inspection by KSEB was correct, since the mahazar was duly witnessed by the representative of the appellant but the appellant has disputed the mahazar on some other grounds. Also, a rise in energy consumption obtained after the rectification of the defects of wrong connection of the CTs, corroborates the same findings. Thus it is convinced that the energy recorded in the Meter during the disputed period was not correct.

Further this Authority is of the opinion that if the respondent had to inspect the metering system soon after the recorded consumption decreases considerably during the disputed period, it can be easily detected the defect in the metering and to avoid the loss if any occurred to the licensee.

Meter defined as under Supply Code, 2014 is extracted here under for ready reference,

2. (57) "**meter**" means a device suitable for measuring, indicating and recording consumption of electricity or any other quantity related with electrical system; and shall include, wherever applicable, other equipment such as current transformer (CT), voltage transformer (VT), or capacitance voltage transformer (CVT) necessary for such purpose;

The meter is not a recording or display unit only but as defined above all the components above including lead wires include a meter. Moreover, this is not a whole current meter but a CT operated meter, where external CT is connected with metering unit using lead wires and phase voltage from all three phases are tapped from the source of supply and then connected with the same metering unit. There by wiring is also there for this metering system. This coordinates for computing energy is lead to the processing unit of the meter unit from different components of the meter then various electrical quantities are processed then recorded cumulative or otherwise and displayed in the display unit. Under the regulation 113, sub clause (7) of Supply Code 2014 requires the licensee to test

the CT, PT and the wiring connections, where ever applicable while testing the meter. Considering the above points, the appellant's argument that in a high precision three phase electronic ToD meter reduction in recording of actual consumption will never occur due to incorrect phase association of current and voltage as per the technology adopted in it is not sustainable. Further it is found that the appellant has raised some procedural irregularities on conducting the inspections, but not objected the findings entered in the site mahazar.

Clause 134 (1) of Supply Code, 2014:- If the licensee establishes either by review or otherwise, that it has undercharged the consumer, the licensee may recover the amount so undercharged from the consumer by issuing a bill and in such cases at least thirty days shall be given to the consumer for making payment of the bill.

In the event of any clerical errors or mistakes in the amount levied, demanded or charged by the Board then in the case of under charging, the Board shall have a right to demand an additional amount and in the case of over charges, the consumer shall have the right to get refund of the excess amount provided at that time such claims were not barred by limitation under the law then in force.

`The consumer is bound to pay the electricity charges for the true energy he has consumed. Even if there is an omission or mistake in the billing of the consumer it needs to be set it right, if the same comes to light and is bonafide. There is provision in the Electricity Supply Code, 2014 Clause 134 to recover the shortages, if the undercharging of the consumer is established by review or otherwise.

DECISION

From the findings and conclusions arrived at as detailed above, I decide to set aside the short assessment bill amounting to Rs. 89,992/- issued to the appellant. The respondent is directed to revise the bills for the consumption for the period of 24 months prior to the rectification of the defects of the energy meter by taking an average consumption of 09/2017, 10/2017 and 11/2017i.e. Normal average 2875 units (average of 3120, 2600 & 2904), Off peak average 70 units (average of 40, 80 & 90 units) and Peak average 687 units (average of 720, 640 & 700 units). Accordingly the respondent shall raise a bill for the invalid phase association period from 01-08-2015 to 31-07-2017, and issue the revised bill to the consumer within fifteen days.

Having concluded and decided as above it is ordered accordingly. The Appeal Petition filed by the appellant is allowed to this extent as ordered and stands disposed of as such. The order of CGRF in 48/2018 dated 13-07-2017 is modified to this extent. No order on costs.

ELECTRICITY OMBUDSMAN

P/073/2018/ /Dated:

Delivered to:

1. Sri. Alex Antony, Digital House, TC No. 14/2071-3, Vanrose Junction, Palayam, Thiruvananthapuram
2. The Assistant Executive Engineer, Electrical Sub Division, KSE Board Ltd, Puthenchantha, Thiruvananthapuram

Copy to:

1. The Secretary, Kerala State Electricity Regulatory Commission, KPFC Bhavanam, Vellayambalam, Thiruvananthapuram-10.
2. The Secretary, KSE Board Limited, Vydhyuthibhavanam, Pattom, Thiruvananthapuram-4.
3. The Chairperson, Consumer Grievance Redressal Forum, Vydhyuthibhavanam, KSE Board Ltd, Kottarakkara - 691 506.