TAMIL NADU ELECTRICITY OMBUDSMAN

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BEFORE THE TAMIL NADU ELECTRICITY OMBUDSMAN, CHENNAI

Present: Thiru. A. Dharmaraj. Electricity Ombudsman

Appeal Petition No. 30 of 2016

Tmty. T.S. Malini,
W/o T.S. Sudarsan,
Flat No.2, Subhiksha Flats,
No.1, Ponnangipuram 2nd Street,
Nungampakkam, Chennai – 34. ..... Appellant
(Rep by Thiru. T.S. Sudarsan)

Vs

1) The Executive Engineer/O&M,
Mylapore,
Chennai Electricity Distribution Circle/Central,
TANGEDCO (Formerly TNEB)
110-33-11 K V Valluvarkottam SS Complex,
M.G.R. Salai, Nungambakkam,
Chennai - 600 034.

2) The Assistant Executive Engineer/O&M,
College Road,
Chennai Electricity Distribution Circle/Central,
TANGEDCO (Formerly TNEB)
52, College Road, DPI Compound,
Chennai 6. .....Respondents
(Rep by Jayachandran, EE/Mylapore &
Tmty. Sasireka , AEE/College Road)

Date of hearing: 24.6.2016, & 29.6.2016

Date of Order : 19.9.2016

The Petition dt. 29.3.2016 filed by Tmty. T.S. Malini, W/o T.S. Sudarsan, Nungampakkam, Chennai was registered as Appeal Petition No.30 of 2016. The above appeal petition came up before the Electricity Ombudsman for hearing on 14.6.2016 & 29.6.2016. Upon perusing the appeal petition, counter affidavit of the Respondent and after hearing both sides, the Electricity Ombudsman passes the following order :

ORDER

1. Prayer of the Appellant :

The Appellant prayed that the consumption for 10/2015 assessment period in respect of SC No.136-022-93 may be fixed as 800 units and the amount may be fixed as Rs.4100/- and render justice.

2. Brief history of the Case:

2.1 Service connection No. 136-022-93 was effected in the name of Tmty. T.S. Malini and is coming under the jurisdiction of the Respondents.

2.2 The consumption for 10/2015 assessment period was recorded as 4380 units and the CC charges levied for the said assessment period is Rs.27,738/-

2.3 The consumer filed petition before the licensee's officer to change the meter and install a new meter and also requested for revision of the CC charges for the assessment period 10/2015. But has not got any relief.

2.4 The consumer filed a petition dt.11.01.2016 before the CGRF of Chennai EDC Central also in this regard and the CGRF has conducted an enquiry on 25.2.2015. As no order was issued on her prayer, the Appellant filed her appeal petition before the Electricity Ombudsman on 30.3.2016.

2.5 As CGRF has not issued any order even after a lapse of 2 months from the date of filing the petition by the petitioner, the above petition was registered as an appeal petition NO.30 of 2016.

3. <u>Argument of the Appellant furnished in the Appeal Petition</u>:

3.1 Her meter has functioned erratically during a particular month 10/2015 as 4380 units which is 5.26 times of her normal consumption (ie) 800 units for the last 10 years and there is no additional electrical equipment added in her house.

3.2 Moreover she has given letters to AEE, SE, CE, DD & CMD of TANGEDCO No reply so far.

3.3 She has also appeared before the CGRF on 25.2.2015, but so far no reply. As time lapsed without any fruitful effort, she is approaching the TNERC for redressal.

3.4 Normal usage is 800 units from 12.10.2013 till 12.8.2015, the amount paid to TNEB was around Rs.4100/- and a lesser amount of Rs.41 00 from 12.10.2013 to 12.8.2015.

3.5 The 12.10.2015 consumption has raised alarmingly to 4380 units for the same load available in a 700 sft flat.

3.6 There is no change of any new electrical equipment nor any function made so far in that premises.

3.7 A letter was given on 28.10.2015 to Mr. Murugadass, AEE/Electrical/O&M/College Road section requesting him to change the meter and reduce the consumed tariff from 4380 units to 800 units.

3.8 The AEE/College Road has sent the letter to Mr. Babu, AEE/MRT/Central for assessing the function of the meter. The AEE/MRT/Central has downloaded the meter on their premises on 14.10.2015 & 26.10.2015 and informed that the meter is running in good condition. He is also informed that there is a load of 12 kw available in their premises against a sanctioned load of 5.3 kw. Expect this he has not given any report about the downloading details to them.

3.9 The AEE/O&M/Coliege Road has sent a letter to them stating that the meter is running in good condition and revision of energy consumption can not be made Hence, he has requested them to pay an amount of Rs.27783/- for the month of 10/2015 which is very exorbitant and unimaginable amount which cannot be paid by a normal consumer since the recording of units with its internal fault may mar the interest of the consumer because of the faulty meter.

3.10 It is only a domestic consumption and not a commercial . Only commercial people may pay this much amount for a total load of 12 kw.

3.11 The consumption was exorbitant due to the following reason. The meter has developed a fault inside and it has continuously running even during night times between 11 pm to 6 am when there will be only a/c running intermittently and the consumption will around 0.8kw and not as recorded in the meter. Moreover the consumption in a domestic service will be maximum 3.02 kw during 6am to 11 pm as mentioned by MRT. Hence, taking into consideration of these facts the consumption is

erratic and the meter is faulty and the facts are not accepted by officers of TNEB from AE till Chairman and Managing Director.

3.12 Moreover, the next month 12/2015 reading taken in the same meter was only 650 units and the amount is only Rs.3110/- But, the local AEE has informed in his letter dt.20.11.2015 that the service is under disconnection. Hence, she is not able to pay the amount since there is no entry in the computer.

3.13 Moreover, even if there is a 12kw of connected load there will be usage load of 5.3kw maximum in a day and hence she is getting only around 800 units amounting to Rs.4000/- every two month. These load pattern exists for the last 10 years and her plea of 800 units bimonthly is the correct consumption.

3.14 When the meter reading of 4380 units amount of Rs.27783/- is not to be included in other services of the same premises nor any other services available in all over TN.

3.15 The meter procured by TNEB is not checked by the department thoroughly for each meter and they are testing at random and say that all the meters are in order.

3.16 The grid map of India lags for its stability since each state draws power from central share of power, which make the instability in the grid because of its variation in frequency, voltage, current and power factor. The meter that is to be procured must have the following details as present frequency, voltage and power factor so that the meter can register correct usage load instead of making the meter in a non standard condition. There should be a alarm as well as SMS from the meter to the consumer to avoid these type of error. Lack of this facility will boost the loss of revenue to TNEB. More over the lower officer changes these type of meters & these changes were made as burnt meter by local officers.

3.17 The load pattern cannot be same for the entire 24 hours in a house. If so,the TNEB would have entangled in severe power cuts right from its inception. TNEB will not able to sustain the average load pattern in the grid and not able to sustain load growth. Hence, any normal meter will carry average loads for a" 24 hours whether its domestic, commercial, HT, Huts, agriculture and others. The load pattern will be maximum at certain hours and minimum for the rest of the period and not as claimed by the officers of TNEB. Her average load per day is 5.3 kw and maximum load is 3.02 kw for 1 to 2 hours and rest of the period it will be o to 0.32 kw.

3.18 She has requested the AEE, EE and SE during CGRF on 25.2.16 to furnish the load curve of the present meter bearing Alc No.136-022-93 for the particular period of 10/2015 for its faulty nature and they have not given the details so far.

4. <u>Argument of the Respondent furnished in the Counter</u>:

4.1 The Respondent submit that the averments made in para 1 of the letter dated 4.4.2016 that on the petition filed by the petitioner before the CGRF, Chennai EDC/Central on 11.1.2016, and hearing was conducted on 25.2.2016, but the forum has not pronounced the order is not correct. On the petition NO.75/2016 filed by the petitioner before the CGRF there was an enquiry conducted before the CGRF on 25.2.2016 in the presence of the complainant and the respondents and after hearing both the sides, an order was passed on 25.2.2016 itself by the CGRF stating that "the meter performance was good and therefore revision of bill is not necessary. The meter was checked by MRT wing and the MRT report also confirms the same. Further, it is found that the consumption recorded by the new meter in the next assessment less, this

reveals that the meter recording is correct. Hence, the forum directs the complainant to pay the CC charges levied by the licensee and to get reconnection of the said service. If the complainant is not satisfied with the MRT report, the meter may be sent to the third party testing lab as per the TNE Supply Code clause 7 sub clause 9. If the report comes in favour of the consumer , then the licensee shall cancel the charges levied. If it is otherwise, the consumer shall pay the required charges to the licensee". The copy of the said order was forwarded to the petitioner stating that if the petitioner is not satisfied with the same she can appeal to the Tamil Nadu Electricity Ombudsman within 30 days from the receipt of the said order.

4.2 It is further, submitted that as per the direction passed by the CGRF dated 25.2.2016 if the consumer fails to bear the expenses that may be incurred for testing lab, the licensee shall bear the same. Since, the consumer refused to bear the expenses, the respondents wrote a letter dated 11.3.2016 AEE/O&M/CRD/D7341 to EE/O&M/Mylapore asking for the consent to send the meter for testing. Based on the said letter, the EE/O&M/Mylapore also by a letter dated 2.4.2016 to SE/CEDC/Central vide Ref: EE/O&M/MyI/D.1430 gave consent for the same.

5. <u>Hearing held by the Electricity Ombudsman:</u>

5.1 To enable the Appellant and the respondents to putforth their arguments in person, hearings were conducted on 24.6.2016 & 29.6.2016.

5.2 Thiru. T.S. Sudarsan H/o the Appellant attended the hearing on both days and putforth his arguments on behalf of the Appellant.

5.3 Tmty. R. Sasireka, AEE/O&M/Coliege Road the Respondent-2 herein attended the hearing on both the days and Thiru. C. Jayachandran, EE/O&M/Mylapore the respondent-1 has attended the hearing on 29.6.2016 and putforth their side arguments.

6. <u>Arguments putforth by the Appellant's Representative on the hearing dates</u>:

6.1. The Appellant's representative reiterated the contents of the Appeal Petition.

6.2 He argued that the normal consumption of the said service is around 800 units only. But, the consumption recorded during 10/2015 assessment period is about 5 times of the normal usage.

6.3 He argued that there is no new addition of equipments in the house and no function was conducted during the said period.

6.4 He argued that the meter has functioned abnormally due to some internal fault/software problem in that particular period. Hence, he argued that for the mistake in the meter function consumer shall not be penalized.

6.5 He further, citing the tamper counting recorded as 26 for the period from 1.8.2015 to 1.10.2015 and argued that the tamper count during the disputed period is 7 to 8 times of the tamper count recorded in the previous periods and argued that the function of the meter is suspectable.

6.6 He also citing the MD KVAR recorded as lead 0.123 on 4.10.2015 and argued that there can not be recording of any lead KVAR in the house as the loads are either resistive or inductive.

6.7 He vehemently argued that in a house of 700 sq. ft, consumption of more than 100 units per day is impossible. He also informed that the total connected load cannot

be in service always only a small portion of load will be utilized at a time and AC units will work intermittently at night. Heater may be in use for ½ an hour and both AC & Heater may not be in use at a same time.

6.8 He also argued that his normal maximum demand is around 3kw only. But, during the disputed period his maximum demand recorded is 12kw. This may also be due to malfunction of the meter only.

6.9 He also gave a written argument. The arguments are furnished below:

(i) The graph pattern for the 90 days furnished have showed only 5.2 kw or lesser consumption only, whereas the reading taken shows the combination of inductive and capacitive (or) external load together which has altered entire reading flows as there is a morning peak as well as evening peak in which the reading alters in each and every point of origin and it can be seen. If you take 7 am to 9 am as peak in the morning the load curve differs as there is low consumption whereas when the actual usage of the load is peak during that time. But when there is low consumption in the afternoon period the actual consumption is very high. It shows a capacitive (or) external load is seen in the reading. This blocks the function of the meter. In the evening peak from 6 pm to 10 pm, there is a low consumption and the afternoon time the reading is high as well as during night time the reading are very high after 10pm when there is A/c load alone in service. The comparable graph reading shows the details. During any day- 24 hours the actual consumption is only showing the combination of inductive as well as capacitive (or) external load in the consumption. This can be illustrated as below :

(ii) On 22-8-15, the actual reading in the graph reading put together is 28 units whereas the actual reading shows 32 units. This shows that there is a combination of inductive as well as capacitive (or) external load put together. Hence the difference in reading shows the best example.

(iii) On 19-9-15, the actual reading in the graph is 90 units whereas the reading shows 110 units. It clearly indicates an addition of inductive as well as capacitive (or) external load put together.

(iv) Any reading in 90 days pattern given shows the above example. In a domestic service only inductive load is normal consumption pattern, but additional capacitive (or) external load have crept in the load and hence this load have to be ignored and it is a defective pattern as such. If there is no capacitive (or) any external load, this would have been normal inductive load only.

(v) This can be verified from the reading in the cumulative energy and demands as such the tabular column shows the actual inductive and capacitive(or) external load in the meter. When there is no inverter as well as no capacitive pattern of load in the house how can the MRT wing ascertain the reading is correct? When the tamper count occurrence in 10 min time the voltage, current and the power factor are functioning erratically and explicit load with difference in voltage, current and pf in the meter and hence the meter function is 100% erratic. As stated earlier that the 24 hour-12hour-5hour function do not cover the meter reading in anyone slot as stated by MRT. The inductive as well as capacitive load have created false reading in the meter undoubtedly. Hence this enormous reading occurred and the high amount crept in this case.

(vi) The tamper counts establish this pattern in the meter as 2/15 - 3; 4/15-5; 6/15- 3; 8/15- 3; and for 10/15- 26 and the pf is below 1 in all the above readings. It has been mentioned in the letter sent by the A.E.E'/O&M/College road that says that there are 4 missing tamper counts and 22 current short circuit tamper counts have registered. This means that there is a strong external source of supply have featured in the reading which have enormously raised the meter function and the tamper counts and there is an additional source have started functioning in the meter. Please also go through the actual reset backups and you can find the differences.

(vii) More over the period of consumption 10/15 is rainy as well as winter season and not a peak summer period.

(viii) Any working parts may stall at some period and resume its activity after some time in electronics. This may create unnecessary disturbances in the flow pattern and hamper entire reading. In this particular case, this has happened.

(ix) The meter consumption of below 800 units will be fully established when you correct all potential leaks in the digital reading and energy graph given by TANGEDCO.

(x) The meter is giving a faulty digital reading and the meter fault is well established For example, during unity pf the voltage in some reading is zero and current in some reading is zero and in some case the voltage present and current alone is zero. The mismatching of reading in all the reading given by the MRT shows that the meter is 100% defective and not as mentioned by MRT that the meter is correct and the readings downloaded are correct.

(xi) The difference in the digital reading as well as energy graph should have given the same reading as per the meter manufacturer if the analog and digital pattern are same and as earlier stated in the previous letter, She suspects for the software discrepancies established in the meter. IS code for components are well established whereas software is not established.

(xii) From 10/15 till 6/16, they have kept their service as disconnected and hence requested to effect regular connection and thus give them that the service as a regular service from 10/15 and not disconnected.

(xiii) Even meeting higher officers like CMD, DD, CE/NORTH have put them in vain only. The vast difference from the two above readings have correctly assured that the meter is at fault during the particular period. The consumption for the 10 years period 2005 to 2015 shows only 800 units or below 800 units. The consumption after this period also shows below 800 units.

(xiv) Hence she request the Ombudsman, to go through the reading and correct the reading below 800 units for 10/15 as per the difference in reading stated above. The disconnection of their service and the amount to be corrected as well as connecting the service without fine and collecting the due amount in ten installment is requested.

7. <u>Arguments putforth by the Representative of the Respondent</u> :

7.1 Tmty. Sasireka, AEE/O&M/Coliege Road reiterated their arguments given in the counter.

7.2 She also informed that the CGRF has already issued its .order.

7.3 She also informed that after analyzing the downloaded data, MRT have informed that the meter is in good working condition. Hence, the consumption recorded are only the actual consumption.

7.4 She also argued, that if the consumer is doubting about the function of the meter, he may opt for a challenge test.

7.5 On 29.6.2016 the EE/Mylapore attended the hearing and argued that the meter is working alright only. He also informed that the manufacturer of the meter has reported that the meter function is accurate. He furnished a report of the manufacturer in support of his argument.

7.6 The EE also argued that the values disputed by the Appellant's representative are only instantaneous. Hence, no inference could be made based on such instantaneous values.

8. <u>Written argument of the Appellant</u> :

8.1 As discussed in the meeting held on 29-6-161 the E.E/O&M/Mylapore/ AEE/O&M/College road and AE/MRT/Central have intimated that the Tamper counts in any meter will be 3 and as a maximum 5 logically and agreed for the registering of 10 tamper counts and it will vanish after its recording function.

From this it is ascertained that no meter can function for 26 tamper counts at a stretch. But this particular meter functioned for 26 tamper count at a stretch and this is a faulty function and hence this meter is a defective meter as she earlier said.

8.2 The 26 tamper counts have recorded a continuous reading and hence the meter has shown 4380 units. This 26 counts when divided by 5 as told by the above three officers, the extra units observed will be as 26/5 = 5.2 times or 5.2 fold extra units grasped by the meter (each unit registered in other meter is registered as = 5.2 unit in the meter) and hence the reading becomes 4380/5.2 = 842 units only and have been consumed by her for that particular bimonthly. Hence she should be charged only for a maximum of 842 units and the total amount comes as Rs 5557.20/- only. For example 1 unit =5.2 units in my meter; 2 units= 10.4 units; 3 units=15.6 units and so on and so forth.

8.3 If you take 3 tamper counts in her case logically or normally as in other normal function meter/ 26/3 = 8.66 = 505 units = Rs 3338/- . For example 1 unit = 8.66 unit in my meter; 2 units= 17.32 units; 3 units = 25.98 units and so on and so forth.

8.4 The reading shown by her in page 2/2 on 3-3-15, at 08-12-23, occ- B missing- 81.8 voltage seen 0.26 amperes seen and a lead power factor of 0.165 found. The problem of meter started there itself.

1) The reading 02-07-15, occ-B missing- 84.3 volts - 0.11 amperes- unity pf.

2) The reading 17-08-15, occ-B missing - 0 volts- 0.06 amps- unity pf.

3) The reading 15-10-15, occ-B missing- 39.7 volts- 0 amps - unity pf.

4) The reading 02-07-15, occ-y missing- 157.6 volts-O amps- unity pf

5) The reading 03-03-15, occ-R missing- 153.5 volts- 0.27 amps- unity pf

6) The reading 22-04-15, occ,R missing- 84.5 volts-0.30 amps-unity pf

7) The reading 02-07-15, occ -R missing-57.4 volts- 0.09 amps- unity pf

It shows that this particular meter have shown a different pattern of reading when any potential missing happens and hence this meter is 100% defective.

8.5 This is known as a explicit reading in the meter as separate voltage or separate current which hampers the meter function fully and hence there is a continuous tamper reading of 26 registered and this a very strong point for meter function. Hence I have received a total reading of 4380 units which is exorbitant and the total mal-function of meter had brought us stress with torture with mental agony and restless in our whole family. The letter received from the company have not gone enough in their detailed function and the letter itself is a wrong letter. Now if we send this missing details and the tamper details to them they have no answer and their software is a faulty one and they have no answer for this also.

8.6 The reading in the dates 22-08-16 till 15-10-15 showed current in all three phases between 22.00 hrs till 06.00 hrs. Any house which is in normal usage will be at dark from 22 hrs till morning 06 hrs because everybody will be sleeping due to days tired work. The meter function at that timings will be 2 to 3 amps current in one phase due to running of air conditioner, 0.03amps in another phase due to running of fridge and other small appliances in another phase and third phase will be 0. But in our case the meter have shown maximum reading as from 22 hrs to 06 hrs in all days given by E.E/O&M/Mylapore which is contrary in our case. Hence this abnormal absorption of current between 22 hrs till 06 hrs hampers the meter function entirely. This timings were to be recorded for meter malfunction.

8.7 On 15-10-16, time 16 hrs to 16.30 hrs, the voltage shows in two phases but the current is 0 in all three phases. This is a malfunction of meter. Thats why she call this meter as 'EXPLICIT METER.

8.8 Hence she requests that 505 units may be fixed as consumption of 10/15 and oblige. She requests that the defective meter may be removed and a new meter fixed.

9. <u>Written argument of the Respondent</u> :

9.1 On 29.06.2016 discussion, it was not agreed by us, as the maximum tamper counts will be 3 or 5 for a meter. The tamper counts are based on the nature of load utilized at that instant and there is no maximum limit for the tamper count.

9.2 The theory used by the appellant, for calculation of energy units based on tamper counts is wrong and not applicable for energy calculation.

9.3 The parameter values recorded by the meter under tamper event logging are all instantaneous in nature and are only related to that instance and tamper event logging.

9.4 From the TOD details from 22/08/2015 to 15/10/2015 the energy consumption by the consumer has been drastically increased from 5-6 Kwh/day to 35-110 Kwh/day which is also recorded by the meter and can be verified from the local survey data report.

9.5 As already said, the parameter values recorded by the meter under tamper event logging are all instantaneous in nature and related to that instance and tamper event logging purpose only.

9.6 The report received from the meter manufacturer M/s Vision Tek (Linkwell Tele system Pvt LTd) is also enclosed herewith for your kind perusal. It is mentioned by the meter manufacturer M/s. Vision Tek also that the data recorded by the meter was found accurate and verification of instantaneous data report, reveals that the recording of the meter is as per actual input i.e. voltage, current & power factor. Hence, on verifying with the instantaneous data report, billing data, load survey report, I submit that the meter recording in A/c No.136-022-93 is perfect and accurate.

10. <u>Issues to be considered</u> :

10.1 On a careful consideration of the arguments putforth by the rival submissions, the issue to be considered are

(i) Whether the contention of Appellant that the consumption recorded during 10/2015 assessment period is high is correct ?

(ii) Whether the meter installed in the Appellant's service is defective ? Whether any relief could be given to the Appellant?

11. <u>Findings on the First Issue</u> :

11.1 The Appellant argued that their normal consumption for the past period is only around 800 units per assessment period. But for the 10/2015 assessment period, the consumption recorded in the meter is 4380 units. Which is more than 5 times of the consumption previously recorded in the service. She also argued that in the subsequent period also the consumption is below 800 units.

11.2 The Appellant argued when there is no change in the connected load and utilization pattern, the consumption of 4380 units is abnormal and is due to malfunction of the meter only.

11.3 The Respondent informed that the MRT after analyzing the downloaded data has informed that the meter is in good working condition.

11.4 As the consumer has argued that her consumption is only around 800 units, I would like to examine the consumption recorded for the previous periods which are given below :

Month	Year						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
2	270	540	330	380	460	410	436
4	600	700	850	630	400	550	659
6	1150	500	960	800	700	810	810
8	30	630	980	930	600	860	720
10	580	710	930	930	790	840	4380
12	720	660	500	860	820	370	-
Total	3350	3740	4550	4530	3770	3840	7005
average	558	623	758	755	628	640	656 (excluding 10/2015)

11.5 On a careful analysis of the consumption recorded from 2009 to 2015, it is observed that the consumer has consumed more than one thousand units only at one time (ie) during 6/2009. The lowest consumption recorded was 30 units during 8/2009. The Appellant informed that they have gone to Germany during the said period of 8/2009 and leaving the above, the lowest consumption recorded in the said service is 270 units and the highest is 1150 units both are in the year 2009 only. The average consumption per assessment period in 2009 to 2016 are given below :

2009 - 558 units

2010 - 623 units

2011 - 758 units

2012 - 755 units

2013 - 628 units

2014 - 640 units

2015 - 656 units (if 10/2015 consumption is excluded
& 1401 units (if 10/2015 is included).

11.6 It could be seen from the above analysis, the consumption pattern during October assessment period varies from 580 to 930 units excluding 10/2015. The total consumption for the previous four assessment in 2015 is 2625 units only. Even the maximum total consumption recorded in a year in the previous periods is only 4550 units Whereas the units recorded for 10/2015 assessment period alone is 4380 units. The total units recorded per annum for 2009, 2010, 2013 & 2014 are les than the bimonthly consumption of the disputed period (ie) 10/2015. Hence, as per the above analysis, the consumption recorded in the said service during 10/2015 is very high when compared with the normal consumption pattern of that service.

12. <u>Findings on the Second Issue</u> :

12.1 On an analysis of the daily recorded consumption from 21.8.2015 to 18.11.2015 furnished by the Respondents it is noted that the consumption was 13 units on 21.8.2015 and increased to 32.7 units on 22.8.2015 and 77.99 units on 23.8.2015 and was more than 50 units upto 14.10.2015 and 35 units on 15.10.2015 and then reduced to below 12 units after wards. The maximum consumption recorded in a day is 110.61units on 19.9.2015. From the above consumption pattern it is seen that the disputed period is from 22.8.2015 to 15.10.2015. The 10/2015 assessment falls between 10.8.2015 to 12.10.2015. Therefore, the disputed period is from last week of

August to 2nd week of Oct 2015. Which falls under rainy / winter season only, and not summer period.

12. 2 The above very high consumption during 10/2015 may be due to malfunction of the meter or actual consumption by the consumer due to higher utilization of loads as per the enhanced requirement met at that time

12.3 The Appellant argued that the high consumption recorded is due to malfunction/ defect in the meter.

12.4 To establish the meter as defective, the Appellant has pointed out the following discrepancies noted down in the downloaded data furnished by the Respondents. The number of tamper count during the disputed period is 26 as against 3 or 5 in the other bimonthly's furnished in the data sheet. It was informed by the Respondent that 22 current short circuit tampers have been registered. This means that there is a strong external source of supply has featured in the reading which has enormously raised the meter function and tamper counts. She also argued that the tamper counts have recorded a continuous reading and hence the meter has shown 4380 units. The extra units observed will be 26/5 = 5.2 times. Hence, she argued that 5.2 times of the actual consumption has been recorded (ie) each units registered in other meter will be registered as 5.2 units in the above meter. Therefore, the consumption shall be 4380/5.2 = 842 units only and it has alone be charged.

(ii) She also cited the load curve pattern and informed that the morning peak and evening peak hour consumption are low as per the curve but it will be more as per actual utilization. Similarly the consumption is recorded more during the afternoon section and between 22.00 Hrs to 6.00 Hrs next day which is actually a less utilization

period. She argued that the above is due to combination of inductive as well as capacitive or external load put toqether. She also argued that she suspects analog digital cumulative summation in the digital reading when comparing the graph reading.

(iii) She also argued that the consumption works out to 28 units as per the graph but the digital value recorded was 32 units on 22.8.2015. Similarly on 19.9.15 also the value as per graph is 90 units and as per numeric value recorded was 110 units.

(iv) The working parts may stall at some period and resume its activities after some time in electronics. This may create unnecessary disturbances in the flow pattern and hamper entire reading in this case it has happened.

(v) The period in dispute is 10/2015 assessment period. It is a rainy/winter season and not a peak summer season for consuming more energy.

(vi) There are mismatching of reading (ie) during unity power factor, the voltage in some readings are zero and current in some reading is zero and in some cases the voltage present but current is zero. The above mismatching of reading shows the meter is defective.

12.2 The Respondent have furnished the following arguments in support of the meter is in good working condition.

(i) The meter datas were downloaded and analysed by MRT wing and found to be normal.

(ii) The downloaded details were examined by the meter manufacturer and the manufacturer has reported that the function of the energy meter is alright.

(iii) The tamper counts are based on the nature of load utilized at that instant and there is no maximum limit for the tamper count.

(iv) The theory used by the Appellant for calculation of energy units based on tamper count is wrong and not applicable for energy calculation.

(v) The parameter values recorded by the meter under tamper event logging are all instantaneous in nature and are only related to that instance and tamper event logging.

(vi) From the TOD details from 22.8.2015 to 15.10.2015 the energy consumption by the consumer has been drastically increased from 5 to 6 units per day to 35 to 100 units per day which is recorded by the meter and can be verified from the local survey report.

(vii) The manufacturer M/s Vision Tek has reported that the data recorded by the meter was found accurate and on verification of instantaneous data report reveals that the recording the meter is as per actual input (ie) voltage, current & power factor.

12.3 The Respondent argued that the meter is working alright. As the Respondent has cited the report of the MRT, I would like to refer the report of the MRT dt.19.11.2015. The same is extracted below :

"In continuation to the letter cited and as per the request of AEE/O&M/College Road, static meter of Vision tek make bearing Sl. No. 00183842 of capacity 3 x 10-60A provided in L T SIC of A/c No.136-022-93 Tariff -IA with respect to AEE/O&M/College Road section was inspected on 19-11-2015 and conducted power check. The meter performance was found to be in order.

By analysing the data it has been found that the KWH and KVAH readings taken and entered in WMC were also found to be in order. As the consumer avails the maximum load of 12 KW against the sanctioned load of 5.3 KW, it shall be regularized as per the rules in vogue.

Check reading are furnished below for your reference.

Sl. No.	*Date*	*KWH Reading*	*KVAH Reading*	*KWMD*	*MD Reached Date*
1	*19111115*	*7082.33*	*7416.29*	*11.926*	*2.10.15*

Sd / xxx xx 19.11.15
Assistant Executive Engineer
MRT /Metering/Central
Nandanam, Chennai 35."

12.4 On a careful reading of the said letter, it is noted that the MRT has inspected the meter on 19.11.15 and conducted power check and found the performance of the meter is in order. The AEE/MRT also stated that by analyzing the data, it has been found that the KWH and KVAH readings taken and entered in WMC were also found to be in order. As per the report, a maximum demand of 11.926KW was recorded on 2.10.2015.

12.5 The Respondent also furnished the report dt.28.6.16 and 18.7.16 of the Manufacturer of the meter MIs Vision Tek. The relevant paras of the said reports are *extracted below:*

"Mis Vision Tek letter dt.28.6.2016

Problem reported by the consumer:

Meter energy measurement is abnormal Oct 2016 Billing details are not acceptable. After meter installation 4 billings are generated on 1.4.15, 1.6.15,1.8.15, 1.10.15, But customer not accepting the billing generated on 1.10. 15

04 A. Root Cause analvsis :-
As per meter (SI.No.00183842) BCS data (attachment: Energy consumed from 1.8.2015 to 30.9.15 is 3762 KWh (5872kWh-2110 kWh)

Verified the instantaneous data report and found that the recording of the meter (either energy or demand) is as per the actual input i.e. voltage current and power factor etc.,

Theoretical calculation : 214. 18x5, 12- x0.979) + (222.39x1.50x0.961)+220.48x1.34x973)=1.681614 recorded by meter: 1.653941.

In billing data, maximum demand recorded by the meter is usually 2-3kW which is tallying as per the consumption recorded by the meter. In one billing history demand found as 12.014 kW which is also tallying with the consumption recorded by the meter. The same can be verified/interpreted in TOD details also.

From 22.8.2015 to 15.10.2015, the daily energy consumption by the consumer has been drastically increased. from 5-6kWh to 35-110 kWh which is also recorded by the meter and can be seen road survey data report.

In above said dates, energy and demands are tallying with the load survey snapshot data of voltage and current (data report attached).

From 8/2015 month to 10/2015, it was found that kVArh lead also increased which may be due to uneven loads used by the consumer which is also recorded by the meter accurately.

Conclusion:
1) Energy meter measurement function is accurate.

Advice:
1) Accuracy of the meter can be checked with any standard reference meter in field.
2) Even, connect another meter in series for long period as required by the consumer for re-verification.
3) May remove the meter from the filed and test at any standard laboratory for meter performance as per IS-13779.

12.6 On a careful reading of the above report dt.28.6.2016 it is noted that the manufacturer has concluded that the energy meter measurement function is accurate and advised the accuracy can be tested.

12.7 <u>M/s Vision Tek letter dt.18.7.2016</u>

This has reference to the above subject and meter serial No. 00183842, reference cited under (i), received the MRS report from your good office. We have all data received in MRS file, found meter is working normally. Or detailed observation of report mentioned below :

1. *Data recorded by the meter was found accurate*
2. *Verified the instantaneous data report and found that the recording of the meter (either energy or demand) is as per the actual input i.e. voltage current and power factor etc.,*
3. *In billing history, maximum demand recorded by the meter is usually 2-3kW which is tallying as per the consumption recorded by the meter.*
4. *In one billing history demand found as 12.014 which is also tallying with the consumption recorded by the meter (data report attached). The same can be observed even in TOD details from 22.8.2015 to 15.10.2015, energy consumption by the consumer has been drastically increased from 5-6 kWh to 35-110 kWh which is also recorded by the meter and can be seen in Load survey data report (Data report attached).*
5. *In above said dates, energy and demands are tallying with the load survey snapshot data of voltage and current (data report attached).*
6. *From 8/2015 month to 10/2015, it was found that kVArh lead also increased which may be due to uneven loads used by the consumer.*
7. *The electric loads such as motors, fluorescent lamps often have built-in capacitors can lead to the above.*
8. *The parameter values recorded by the meter under tamper event logging (point 4 to point 11 in the letter dt. 5.7. 16 of the consumer) are all instantaneous in nature*
   and are only related to that instance and tamper event logging.
9. *It is also noted in the event logging meter data that only single-phase voltage was available generally between 3.3.2015 to 23.5.2015. As the load was drawn through only one phase so the energy registration was lesser in those months when compared to the duration from 812015 to 1012015.*
10. *It is also observed that the energy consumption is reduced from 16th Oct 2015 just one day after the first data downloading was taken (ie on 14th Oct 2015). This implies that some correction might have been done in the load side circuit or load is removed from the circuit. This can be commented further only by physical inspection of the load present in the premise.*

Generally if the meter goes defective then it will remain in that condition till some corrective action is taken. In this case, the consumption gradually increased and then reduced as per the load drawn. The data of the meter is intact when compared with billing data and load profile. No changes are made in the meter since installation. Therefore, we can say that there is no defect in the meter and the energy registration is done proportional to the load drawn.

12.8 On a careful reading of the said report that the meter manufacturer has gone through the letter dt.5.7.2016 of the consumer also.

12.9 It is observed by the Manufacturer that the energy consumption has been drastically increased from 5-6 kWh to 35-110kWh from 22.8.2015 to 15.10.2015 which is also recorded by the meter can be seen in load survey data report. In the above said dates energy and demand are tallying with the load survey snapshot data of voltage and current.

12.10 It was also observed from 8/2015 to 10/2015 the KvAh lead also increased which may be due to uneven loads used by the consumer. The loads such as motors, fluorescent lamps often have built-in capacitors can lead to the above.

12.11 It was also reported that the parameter values recorded by the meter under tamper event logging (point 4 to point 11 in letter dt.5.7.16 of the consumer) are all instantaneous in nature and only related to that instance and tamper event logging.

12.12 It was also observed that the consumption is reduced from Oct 16th 2015 just one day after first data down loading (ie) on 14th Oct 2015. This implies that some correction might have been done in the load side circuit or load is removed from the circuit.

12.13 The manufacturer also remarked that if the meter goes wrong then it will remain in that condition till some corrective action is taken. In this case, the consumption gradually increased and then reduced as per the load drawn. The data of the meter is intact when compared with billing data and load profile. No changes are made in the meter since installation. Therefore, they concluded that there is no defect in the meter and the energy registration is done proportional to the load drawn.

12.14 As per the observation of the manufacturer, the meter is working alright. As the manufacturer and MRT wing of the licensee have stated that the meter is working alright after analyzing the down loaded data, I am of the view that the meter is in good working condition only.

12.15 As the meter is declared as in good working condition, the energy recorded is also to be taken as the consumption recorded for the service. Hence, I am unable to give any relief to the Appellant.

12.16 However, if the Appellant still suspects the function of the meter, she may opts for a special test of the meter at third party testing laboratory accredited by NABL as per regulation 7(9) of the Supply Code. The said regulation is extracted below:

" 7. Installation of Meter:
xxxx xxx xxxx
xxxxx xxxx xxxx
(9) If the consumer considers that the meter is defective, he may apply to the Licensee to have a special test carried out on the meters at any time and the cost of such a test shall be borne by the Licensee or the consumer according as the meter is found defective or correct as a result of such a test. The aforementioned special test for the disputed energy meters including the suspected/defective meters shall be carried out in the Third Party testing laboratory accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) and till such time the Third Party Meter Testing Arrangement is established, the licensee shall have the special test conducted by the Chief Electrical Inspector to Government of Tamil Nadu. The meter shall be deemed to be correct if the limits of error do not exceed those laid down in the relevant rules made under the Act. The consumer may also be allowed to install a check meter after recalibration by the Licensee. Such check meter shall be of high quality, high precision and high accuracy and sealed by the Licensee. Whenever the Licensee's meter becomes defective the check meter reading may be taken for billing.
xxxx xxxx xxxx"

12.17 On a careful reading of the said regulation, if the consumer consider that the meter is defective, the consumer may apply to the licensee to have a special test carried out on the meter and the cost of such a test shall be borne by the licensee or the

consumer accordingly as the meter is found defective or correct as a result of such test. The above test has to be conducted in the Third party testing laboratories accredited by National Accreditation Board for testing and calibration laboratories (NABL) and till such time, the Third party meter testing arrangement is established, the licensee shall have the special test conducted by the Chief Electrical Inspector to Government of Tamil Nadu. The meter shall be deemed to be correct if the limits of the error do not exceed those laid down in the relevant rules made under the Act.

12.18 As the licensee is stating that the meter is in good working condition as per down loaded data and the Appellant is insisting that the meter is defective, the licensee may arrange to conduct a special test on the meter to confirm the correctness of the meter if the Appellant requested for such test.

12.19 In the amendment to M.P.No.41 of 2003, dt.8.9.2009, the following has been stipulated with regard to challenge test.

" (i) xxx xxx xxx The challenge test shall be done either at Government Electrical Standards Laboratory (GESL) run by Chief Electrical Inspector to Government of Tamil Nadu or at National Accreditation Board for Testing and Calibration Laboratory (NABL) accredited laboratories and the place of such challenge test shall be left to the discretion of the consumer. The charges for challenge test shall be as per the rates in force at GESL and NABL accredited laboratories.

xxx xxx xxx

(iv) Charges for the Challenge Test made at Government Electrical Standards Laboratory (GESL) or at National Accreditation Board for Testing and Calibration Laboratory (NABL) shall be as per the rates in force at GESL or NABL, as the case may be, which shall be collected by the licensee from the consumer for whom the said Challenge Test was made."

12.20 On a careful reading of the above, it is noted that the challenge test shall be conducted either at Govt. Electrical Standards Laboratory (GESL) or at anyone of the National Accredited Laboratories and the place of challenge test shall be left to the discretion of the consumer. The charges for challenge test shall be as per the rates inforce at GEPL and NABL accredited laboratories. The licensee is directed to inform the testing charges applicable for testing the meter at GESL and NABL accredited laboratories to the Appellant and conduct the special test on the disputed meter at the laboratory opted by the Appellant, if the Appellant wishes to have a 'challenge test' on the meter. Based on the test results the condition of the static meter whether in good condition or not shall be decided. If the meter is declared as defective by the NABL accredited laboratory then, the consumption charges for 10/2015 may be worked out as per regulation 11 of the Supply Code.

13. <u>Conclusion</u>:

13.1 In view of my findings in para first & second issues furnished in para 11 & 12 above, I am unable to give any relief to the Appellant.

13.2 With the above findings the A.P.No.30 of 2016 is finally disposed of by the Electricity Ombudsman. No Costs.

(A. Dharmaraj)
Electricity Ombudsman

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6) The Secretary
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7) The Assistant Director (Computer) - **FOR HOSTING IN THE TNEO WEBSITE PLEASE**
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