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REPRESENTATION No: P 92/09

Appellant : The Dairy Manager
Ernakulam Regional Co op Milk Producers Union Ltd
Kottayam Dairy, Vadavathoor, Kottayam 686010

Respondent: Kerala State Electricity Board
Represented by
The Assistant Executive Engineer
Electrical Sub Division Ramapuram

ORDER

The Dairy Manager ,Ernakulam Regional Co op Milk Producers Union Ltd Kottayam Dairy, Vadavathoor, Kottayam submitted a representation on 8.9.2009 seeking the following relief:

Set aside the Order No: CGRF-CR/Comp/113/2008-09 /961/4.8.2009 of CGRF Ernakulam and cancel the Short assessment Bill dated 11.2.2009 amounting to Rs 456597/-

Counter statement of the Respondent was obtained and hearing conducted on 2.12.2009 and 16.2.2010.

The Appellant has a 3 phase LT connection with 100/5 CT and static meter with Cons No: 10583 of Marangattupally section at Kurichithanam .The APTS unit of KSEB inspected the premises of the Chilling plant on 10.02.2009 and found that the Y-phase of the meter was not recording consumption and noted the details in a scene mahazar. As per the memory data down loaded from the meter the 'voltage missing' in Y phase had occurred on 28.09.2006 and was continuing till date .Hence the APTS instructed that the consumer may be reassessed for 50% of the recorded consumption to compensate the unrecorded portion of energy retrospectively from 28.9.2006. An invoice amounting to Rs 4,56,597/- was issued to the consumer on 13.2.2009.The bill was revised to Rs 4,02,029/- later as per directions from CGRF .The Appellant was not satisfied with the relief ordered by the CGRF.

The representation with the pleas noted above is submitted to the under signed in the above back ground.
As per the directions of the undersigned the meter in the premises was got tested by the Electrical Inspector on 21.12.2009.The Electrical Inspector in the report dated 21.12.2009 made the following observations:

1. The voltage in the R&B phases was normal but voltage on Y phase was only 102V.
2. The voltage leads to the energy meter were tapped from the main in-comer cable in a non-standard manner causing considerable voltage drop at the joint of tapping.
3. It was seen that 14.5% of energy was unrecorded, that is, 14.5% of the energy recorded has to be added to compute the actual consumption.

<u>The contentions/arguments/points raised by the Appellant in the representation and during the hearing are summarized below</u>:

The down loaded data of the meter shows that the voltage in Y phase on 28.9.2006 was 129.4V , not zero. The manufacturers hand book of the meter shows that when ever the recorded voltage on a particular phase falls below 55% of the normal voltage, the meter records a voltage failure for that phase , ie, *the display in the meter* shows zero voltage instead of the actual voltage. This does not mean that the voltage in that particular meter coil is zero nor does it result in zero torque generation by that phase. It is true that there will be under recording in the meter.
On 10.02.2009 even though the display on the meter showed zero in Y phase still there was voltage less than 30% on the meter coil and hence the recording on Y phase coil shall not be zero.
The reading records produced by the Respondent shows that the average consumption in 2005 to 2008 is around 9113 units per month.
The test report of the Electrical Inspector shows that while the meter was tested on 21.12.2009 the voltage on the Y phase was 102V. It also shows that the even if the voltage is 68V the energy is registered in the respective phases in the energy meters of this make. The Electrical Inspector has concluded that when the voltage on the Y phase was only 102V the under recording of energy in the meter as a whole is 14.5% of the actual consumption. Hence the under recording will be much lesser when the voltage on the Y phase was 129V in 2006.

<u>The contentions/arguments/points raised by the Respondent in the counterstatement and during the hearing are summarized below</u>:

As per the Meter manufacturers hand book , when ever a particular phase voltage fails , that is, fall below 55% of the phase voltage the meter records a voltage failure for that phase. When the voltage on a phase is zero the recorded energy shall be 2/3rd of the actual energy. Hence it was decided to re-assess for 50% of the recorded consumption. The period from 28.9.2006 was taken , since the down loaded data showed voltage failure from that date onwards.

The ammonia gas in the plant had caused corrosion in the joints. The Electrical Inspector had tested the meter on 21.12.2009. The plant was shut down for a few months before this, and the absence of ammonia gas or even deliberate shake in the incoming cable may help to regain the voltage connection properly. Hence the test results of Inspector can not be relied upon.
The Electrical Inspector had tested the meter with a load of 5HP .If the load was higher , the results would have been different.
The test report of the Electrical Inspector is acceptable if the error found out on 10.2.2009 at site , ie, (-30.55%) is acceptable to the Appellant.

Discussion and Findings:

As per the Scene mahazar dated 10.2.2009 the voltage display on phase 2 , that is Y phase , was absent. From the above, the APTS concludes that no voltage is reaching the 2nd phase of the meter. The displayed voltage has also been recorded in the mahazar. This conclusion has been specifically questioned by the Appellant . They say that even though the display voltage may be zero , the available voltage on the meter will make its own contribution for generating torque by that phase. Hence the conclusion that recorded energy will be 2/3 rd of the actual is questioned by the Appellant.
It is well known that the current and voltage on each phase of the 3 phase meter contribute for the recording of the total energy. Hence it is not correct to assume that the energy recorded shall be reduced by 1/3rd simply because the voltage *displayed* for the phase is zero. It is admitted that when ever a particular phase voltage falls below 55% of the phase voltage, the meter records a voltage failure for that phase, that is voltage display will be zero. The Respondent has wrongly jumped on to the conclusion that voltage reaching on Y phase coil of the meter shall be zero simply because the voltage *displayed* by the meter is zero.
The Test Report of the Electrical Inspector shows that when the voltage on the Y-phase was 102V the under-recording was 14.5% only. Hence the assumption that when the incoming voltage is less than 55% of the rated voltage that phase will record zero energy is not correct.
Hence I am inclined to admit the argument of the Appellant that the energy recorded in the Y phase need not be zero even if the voltage display is absent.

The next question to be decided shall be the extent of error that would have occurred in the meter through the period from 2006 to 2009. As noted earlier, the Electrical Inspector has concluded that an error of 14.5% was present when the actual voltage on Y phase was 102V. The Appellant suggests that the error could be around 9% on 28.9.2006 when the voltage on Y phase was 129.4V.
The intriguing factor is that the actual voltage on Y phase was definitely unsteady and varied randomly, defeating any attempt to arrive at a conclusive pattern. The fact that the voltage on Y-phase varied randomly has been conceded by the Respondent in the Argument Note dated 16.2.2010. They have tried to correlate the voltage values even to the usage of ammonia gas in the plant! They suggest that even a *deliberate shake* in the incoming cable may result in the variation of voltage on Y phase! And the same

condition had been continuing at least from September 2006 onwards. This is a ridiculous situation.

The Licensee owes an answer to the question why the metering system was allowed to continue in such non-standard manner for years together.

I think this situation call for some serious rethinking of the assessment itself. As per the statutes the Licensee is bound to provide electricity through 'a correct meter' in accordance with the regulations. In the instant case the Respondent themselves state that the voltage to the meter had been varying from time to time depending upon presence of ammonia gas, mechanical shakes on contact wire etc. A practical and scientific assessment of error on the meter is impossible in such circumstances. The error could be anything between 0 to 33.3% depending upon the 'condition' of the contacts. The Licensee can not be allowed to reassess the consumption based upon such vague assumptions and possibilities.

The meter reading of the consumer from February 2003 onwards has been produced by the Respondent. The meter was changed in 12/05 probably with the new static meter. The consumption pattern from 2/ 2003 to 12/2007 does not show any wide variations or abnormal trends of short falls. Consumption from January 2008 shows consistent reduction probably due to change of tariff to LTVII. The meter reading data of 2003 and 2004 also do not support the claim that recorded consumption had fallen by 1/3 rd of the normal some times in 2005.

From the above I am inclined to conclude that the claim of the Respondent that the recorded consumption had declined by 33.3% from 2006 onwards is erroneous. It is true that due to loose contacts or rusted connections the meter might not have recorded the actual consumption for some times on certain periods. But any short assessment has to be based upon concrete evidence and strong scientific methodologies. The Licensee shall not be allowed to pass on the cost of its inefficiencies and bad practices to the shoulders of consumers.

It is true that the Section 24(5) of the Supply Code empowers the Licensee to recover the under charged amounts at a later stage. But the Licensee has to *establish* the extent of under charging with concrete evidence. In the instant case the Respondent has failed to establish the quantum of energy under recorded and the period for which under-recording had occurred.

Under the above circum stances I feel that it will be appropriate to accept the findings of the Electrical Inspector to compute the short assessment . But the period of short assessment is again a big question. It is evident that 14.5% short fall was not present steadily for a long period. The quantum of short fall itself could be widely varying. The Appellant has suggested that some short assessment can be observed from 3/2008 onwards. Accepting this view of the Appellant also , it would be fair if the Appellant is reassessed for 14.5% of recorded consumption from 3/2008 onwards.

Orders:

Under the circum stances explained above and after carefully examining all the evidences, arguments and points furnished by the Appellant and Respondent on the matter, the representation is disposed off with the following orders:

1. *Tthe Order No: CGRF-CR/Comp/113/2008-09 /961/4.8.2009 of CGRF Ernakulam and the Short assessment Bill dated 11.2.2009 amounting to Rs 456597/- with subsequent modifications are set aside.*
2. *The Consumer may be reassessed by adding 14.5% of the recorded energy from 3/2008 onwards and fresh invoice issued for short assessment.*
3. *The defects in metering system in the premises may be rectified immediately in the presence of the representative of the consumer*
4. *No order on costs.*

Dated this the 23rd day of February 2010,

P.PARAMESWARAN
Electricity Ombudsman

No P 92 /09/ 506 / dated 25.02.2010

Forwarded to: 1. The Dairy Manager
Ernakulam Regional Co op Milk Producers Union Ltd
Kottayam Dairy, Vadavathoor, Kottayam 686010

2. The Assistant Executive Engineer
Electrical Sub Division Ramapuram Kottayam Dt

Copy to :

1. The Secretary,
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Thiruvananthapuram 695010
2. The Secretary ,KSE Board,
VaidyuthiBhavanam ,Thiruvananthapuram 695004
3. The Chairman , CGRF,KSE Board ,
Power House Road ERNAKULAM 682018