

**BEFORE THE FORUM
FOR REDRESSAL OF CONSUMER GRIEVANCES
IN SOUTHERN POWER DISTRIBUTION COMPANY OF A.P LIMITED TIRUPATI**
On this the 14th day of December' 2022
C.G.No.59/2022-23/ Nellore Circle

Present

Sri. K. Ramamohan Rao

**Chairperson (I/c) &
Member (Finance)**

Sri. S.L. Anjani Kumar

Member (Technical)

Smt. G. Eswaramma

Independent Member

Between

M. Raghava Reddy, Mg. Partner,
C/o. M/s. Reddy Raw Rice Mill,
D.No.11-33-970 C,
Vengalrao Nagar,
Kavali,
Nellore Dt.

Complainant

AND

1. Assistant Accounts Officer/O/Kaligiri
2. Deputy Executive Engineer/O/Kaligiri
3. Executive Engineer/O/Kavali

Respondents

ORDER

1. The case of the complainant is that Mr.M.Raghava Reddy one of the Managing Partner of M/s.Reddy Raw Rice Mill is having service vide SC.No.3231311002796 underLT Category-III. The complainant has stated that the department issued huge amount of CC bill for the month of August'2022,during supply not used period from May'2022 to August'2022. They approached the department to resolve their grievance, but they did not resolve their grievance.Hence approached the forum to revise the bill.
2. The case was registered as C.G.No.59/2022-23/Nellore Circle and sent to respondents for written submissions. The complainant also filed another application on 15.9.2022 for issue of interim stay order for the said case.
3. Interim directions were issued for the said case vide I.A.No.08/2022-23/Nellore Circle on 16.9.2022 with a direction to the complainant to pay an amount of Rs.3,46,000/- (Rupees three lakh and forty six thousand only) out of arrears amount of Rs.6,91,743/- within one

week from the date of receipt of this order. On payment of the above said amount, Respondents are directed not to disconnect the service connection vide SC No.3231311002796 during the pendency of the complaint before this forum for non-payment of the balance disputed CC bill amount issued for the month of August'2022. The complainant is advised to pay regular CC bills.

4. Joint written submission submitted by the respondents stating that the LT SC No.3231311002796 of M/s. Reddy Raw Rice Mill under LT Cat -III (A) receiving abnormal CC bills for the months from March'2022 to August' 2022 due to recording of RMD in the meter abnormally.

They further stated that M/s. Reddy Raw Rice Mill was released on 1.9.2010 under HT Category 1 (A) with HT SC No.642. The consumer has applied for transfer of his service from HT to LT and accordingly the same was approved during the month of 01/2022. After transferring his service in LT Tariff, the bills were issued to the consumer regularly and also paid the same upto 3/2022. Furnished the details of recorded RMD which is as follows:

Sl.No	Month	RMD	Cont . Load	Excess MD Recorded
1	3/22	100.8	94.74	6.06
2	4/22	121.9	94.74	27.16
3	5/22	176.8	94.74	82.06
4	6/22	189.7	94.74	94.96
5	7/22	184.2	94.74	89.46
6	8/22	142.1	94.74	47.36
7	9/22	150.9	94.74	56.16

The complainant submitted the representation to Dy.EE/O/Kaligirion 27.5.2022 stating that the service was not utilizing the supply. But they have received the abnormal CC bills. The Dy.EE/Opn/Kaligiri has inspected the premises and notice was served to the consumer for maintenance of the power factor at consumer end as per the tariff order for the year 2022-23 as per Clause.6.9 of Chapter-X.

After receiving of the consumer representation again the service meter was inspected and tested by the Dy.EE/HT/Meters-II/Nellore on 5.8.2022 and submit the test report as detailed below. i.e.

- A. Periodical testing has been carried out and the results are within the limits.

DELETED
DATE: 11/01/2023

- B. No Computed consumption is to be added during the testing
- C. As per the reference cited the meter was tested. In that, the power factor was Recorded -0.42 (lead) load condition and -0.23 (lead) on off load condition. So Maintain the correct rating capacitor, the meter accuracy was recorded as 0.08%.
- D. The meter working in Normal conditions.

The Superintending Engineer/Operation/Nellore has approved the proposal for revision of the bills as per the consumer representation and also based on the technical viabilities (Existing DTR Capacity 100KVA) (enclosed letters).

Accordingly the Asst. Accounts Officer/Sub-ERO/Kaligiri has revised the CC bills and served to the consumer for the balance payment of Rs. 5,74,783.00 (letter enclosed).

The complainant has paid an amount of Rs.3,46,000/- Vide PR.No.4568052dt: 23.9.2022 as per the interim orders issued from the Hon'ble Chairperson / Forum for The Redressal of Consumer Grievances of APSPDCL/Tirupati.

- 5. Personal hearing through video conferencing was conducted @ 11.30A.M on 11.10.2022. The complainant, Mr.M.Raghava Reddy, EE/O/Kavali and Dy.EE/O/Kaligiri present. Heard both sides.

The complainant requested for withdrawal of the huge amount of CC bill levied during August'2022 due to un-blocking of lead KVARh in the meter.

The service meter kvarh lead was un-blocked by the Dy.EE/HTMeters Sub-Division/ Nellore-I on 24.6.2022 and served the inspection notes to the complainant representative and obtained signature of the complainant representative with a remark of **"RTC/TOD software updated"**. The Dy.EE/O/Kaligiri has stated that on receipt of complainant representation on 29.7.2022 the Dy.EE/HTM-II/Nellore has tested the meter on 5.8.2022. After observation issued the test report stating that meter was working in normal condition and the complainant not maintained leading power factor. The Dy.EE/O/Kaligiri has stated that he suggested the complainant for removal of the over rated capacitors. Notice was also served on 5.09.2022 to the complainant to remove the over rated capacitors and also mentioned in the notice that "while taking monthly readings it is observed that on 1.9.2022 the complainant exceeded the MD as 150.9KVA which is due to non-maintenance of P.F. to unity". Hence the complainant provided the

automated capacitors and removed the over rated capacitors. The MD recorded in the meter is abnormal from 3/2022 to 7/2022 is only due to non-maintenance of power factor by the complainant. Hence the complainant received huge amount of CC bill. Further stated that SE/O/Nellore has accorded approval to revise the CC bill from 3/2022 to 08/2022 and mentioned in his letter that "as per the recommendations of Dy.EE/O/Kaligiri to calculate the M.D as per the connected load of 127HP for billing" to avoid inconvenience duly observing the department formalities.

6. Point for determination is whether the abnormal CC bill issued for the month of August'2022 for Rs.5,64,000/- for service No. 3231311002796 can be revised or not ?

As per the Hon'ble APERC order on tariff for retail sale, the HT& CT metered consumers who are provided with metering capable of measuring active and reactive power under the orders of the Commission, shall maintain their power factor preferably in between 0.95 lag and 0.95 lead in the interest of the system security. The present complainant not maintained the power factor leading side less than 0.95 lead. If any consumer maintains the power factor less than 0.95 lead for a period of 2 consecutive months, it must be brought back in the range of (+) or (-) 0.95 within a period of 3 months failing which without prejudice to such other rights as having accrued to the licensee or any other right of the licensees the supply to the consumer may be discontinued.

As per para. 6.9 Chapter -X in Tariff for retail sale of Electricity during F.Y. 2022-23 issued by Hon'ble APERC, the consumer has to maintain power factor at their end preferably in between 0.95 lag and 0.95 lead in the interest of the system security. The consumers should not maintain the power factor leading side less than 0.95 lead.

The Para 3.12 Chapter -X at Page No. 194 of 534 in Tariff for Retail Sale of Electricity during F.Y. 2022-23 issued by Hon'ble APERC is as follows:-

3.12. Maintenance of power factor at consumer end

The consumers should not maintain less than 0.95 power factor on the leading side. If any consumer maintains the power factor of less than 0.95 lead for a period of 2 consecutive months, it must be brought back in the range of (+) or (-) 0.95 within a period of 3 months failing which without prejudice to such other rights as having

accrued to the Licensees or any other right of the Licensees, the supply to the consumer may be discontinued. This condition is not applicable to the consumers whose connected load is less than 20 kW.

As per Para 398 Chapter- IX in Tariff for Retail sale of Electricity during F.Y. 2019-20

Unblocking of leading kVArh :

“ For the purpose of billing, leading KVAh is blocked hitherto for all categories of consumers in LT except Domestic and Agriculture and for all categories of consumers in HT. As kVAh billing is taking care of the reactive power management by the consumers, the Commission has decided that the blocked leading kVArh recording in the meters provided for applicable consumers be unblocked. Therefore, the licensees are hereby directed to take note of this change and action shall be taken accordingly.

Month wise bill information statement for SC No.3231311002796for the months from August'2021 to November'2022 is as follows:-

Bill - Date	Opening Date	Open Reading Kwh	Close Reading Kwh	Bill Units Kwh	Open Reading Kvah	Close Reading Kvah	Bill Units Kvah	Amt	EC	CC	Sur Charge	Fixed Charges	RMD	PF
05-Nov-22	06-Oct-22	174216	185354	11138	241838	253254	11416	142080	76487.2	1406	4106.94	44575	156.5	0.98
06-Oct-22	06-Sep-22	168108	174216	6108	235622	241838	6216	102959	41647.2	1406	5664.16	43150	153.9	0.98
06-Sep-22	05-Aug-22	161651	168108	6457	225281	235622	10341	130025	71368.4	1406	4695.32	41725	150.9	0.62
05-Aug-22	05-Jul-22	145834	161651	15817	157582	225281	67699	564676	467191	1406	1218.45	27000	119.7	0.23
05-Jul-22	03-Jun-22	130051	145834	15783	130089	157582	27493	237667	189730.6	1406	3307.03	15600	35.2	0.57
03-Jun-22	05-May-22	113467	130051	16584	113501	130089	16588	149528	114476.2	1406	1261.27	15600	39.7	1
05-May-22	05-Apr-22	70207	113467	43260	70217	113501	43284	404864	298706.1	1406	1210.31	60250	189.7	1
05-Apr-22	04-Mar-22	34409	70207	35798	34414	70217	35803	306246	247082.6	1406	1524.19	54075	176.8	1
04-Mar-22	05-Feb-22	10014	34409	24395	10015	34414	24399	199400	168377.7	1406	201	27950	121.9	1
05-Feb-22	05-Jan-22	1468137	10014	11754	1521535	10015	11754	102183	81116.9	1406	978.65	17975	100.8	1
05-Jan-22	05-Dec-21	1465760	1468137	2377	1519158	1521535	2377	33912	16401.6	1406	715	15243.75	29.3	1
05-Dec-21	06-Nov-21	1462287	1465760	3473	1515684	1519158	3474	47455	23972.6	1406	6599.56	15243.75	94	0.99
06-Nov-21	05-Oct-21	1457693	1462287	4594	1511090	1515684	4594	56214	31704.4	1406	5878.19	16930	98.8	1
05-Oct-21	05-Sep-21	1451464	1457693	6229	1504861	1511090	6229	80577	42987.2	1406	5876.56	29897.5	126.1	1
05-Sep-21	07-Aug-21	1437831	1451464	13633	1491226	1504861	13635	143939	94094.8	1406	1130.18	29707.5	125.7	0.99
07-Aug-21	02-Jun-21	1401717	1437831	36114	1455109	1491226	36117	284713	249246.7	2812	0	30487.5	90.8	0.99

As per the bill information statement, it is observed that the said service RMD exceeded from contracted load of 127HP regularly. The complainant exceeded the CMD of 127HP during the months of April'2022, May'2022, September'2022 & October'2022. Power factor recorded low during the months of July'2022, August'2022& September'2022 is 0.57, 0.23, &0.62

respectively, which is very low power factor .The service meter Kvarh lead was un-blocked by the department and updated the software of the meter on 24.6.2022.

While taking monthly readings it is observed that on 1.9.2022 the complainant exceeded the MD as 150.9KVA which is due to non-maintenance of P.F. to unity. It is observed that as per the suggestion of the Dy. EE/O/Kaligiri, the complainant provided the automated capacitors and removed the over rated capacitors. The MD recorded in the meter is abnormal from 4/2022, 05/2022 and 10/2022 and 11/2022 is only due to non-maintenance of power factor by the complainant. Hence the complainant received huge amount of CC bill. The SE/O/Nellore has already accorded approval to revise the CC bill from 3/2022 to 08/2022 and mentioned in his letter that "as per the recommendations of Dy. EE/O/Kaligiri as per the connected load of the 127HP for billing" to avoid inconvenience duly observing the department formalities. As per the AAO/ERO/Kaligiri letter addressed to Dy.EE/O/Kaligiri on 13.9.2022, it is noticed that the abnormal CC bill was revised as per the SE/O/Nellore from 3/2022 to 8/2022 for Rs.2,46,986/- and balance amount to be paid is Rs.5,74,783/-.Hence AAO/ERO/Kaligiri intimated the Dy.EE/O/Kaligiri to collect balance amount of Rs.5,74,783/- within 15 days and also intimated to disconnect the service, if the complainant fails to pay the said arrears amount within the stipulated time period. It is also observed by this forum that the same letter was addressed to the complainant also. The complainant approached this forum on 15.9.2022 even after deducting the disputed amount from the CC bill of Rs.2,46,986/- from 3/2022 to 8/2022 stating that he did not utilize the supply since May'2022 onwards. Hence requested to resolve his grievance. The M&P wing served notice on 24.6.2022 regarding un-blocking the Kvarh lead to the said meter and updating the software in the meter. The complainant representative also acknowledged the notice.Hence it is clear that the consumer is aware of the un-blocking of Kvarh lead in the meter and updation of software in the meter .Hence he should follow the procedure and maintain required rated capacitors to his unit and during not used period the complainant has to see that the capacitors should be in 'OFF' position. If the complainant followed the procedure during not used period this problem may not be occurred.

https://www.mahadiscom.in/wp-content/uploads/2020/01/002_ANNEXURE-6_FAQs-REGARDING-kVAh-BILLING

Why is kVAh billing necessary? Both Active (kWh) and Reactive (kVArh) energies are consumed simultaneously. Reactive Energy (kVArh) occupies the capacity of electricity network and reduces the useful capacity of system for generation and distribution & hence its

consumption also needs to be billed. kWh based billing is associated with PF incentive /penalty mechanism. Considering that the kVAh based billing has an inbuilt incentive /penalty mechanism and separate mechanism for the same is no more required; instead of billing two energies separately, billing of kVAh energy is preferred as a commercial inducement.

When will kVAh billing be implemented? As per MERC Order in Case No. 195 of 2017 dated September 12, 2018, The Commission intends to implement kVAh billing to all HT consumers and LT consumers having load above 20 kW from 1st April, 2020.

How kVAh billing is different from existing billing & what are its benefits? kVAh billing has an inherent mechanism to incentivize or penalize consumers according to their power factor. The Prime Objective of the kVAh based billing is to encourage the consumers to maintain near unity Power factor to achieve loss reduction, improve system stability, power quality and improve voltage profile. At the national level, emphasis is being given to Energy Conservation, Energy Efficiency and Demand Side Management (DSM) to optimize the energy usage. Through kVAh billing, the consumers will be encouraged to adopt energy efficiency programs and will be benefited by reduced electricity bills.

Explain more about reactive Power & its effects on system?

In case of inductive loads like motors, electrical energy can't directly be converted into useful work (rotation of motor shaft in this particular case). This is because, to convert electrical energy into rotational energy, magnetic field has to be created in between the gaps of stator and rotor of Motor. Hence, some amount of energy has to be used in creating magnetic field. The portion of power that contributes in creating magnetic field is known as Reactive Power. Though reactive power is needed to run many electrical devices, it can cause harmful effects on your appliances and other motorized loads, as well as electrical infrastructure. Since the current flowing through your electrical system is higher than that necessary to do the required work, excess power dissipates in the form of heat as the reactive current flows through resistive components like wires, switches and transformers. How can reactive power be reduced or compensated? Improving Power Factor by installing capacitors of appropriate ratings [or Automatic Power Factor Corrector (APFC) Panels] you can locally compensate reactive power requirement, thereby reducing reactive power drawl from grid.

Explain more about Power Factor (PF)? Desired Power Factor is unity i.e. 1, and its range is Zero Lag – unity - Zero Lead. For purely capacitive loads PF is Zero Lead and for purely inductive loads PF is zero Lag. Unity Power Factor signifies that there is no reactive power

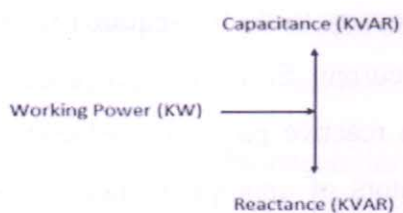
exchange between consumer and grid. Power Factor is an indicator for efficiency of Energy Conversion. If PF is 0.85 it means that 15% of power is not resulting in actual work. If PF is 0.85 lagging it means that 15 % of power is used by inductive elements and If PF is 0.85 leading it means that 15 % excess reactive power is supplied by capacitive elements. In both the aforementioned cases 15 % of power is not resulting in to actual work. Both Leading and lagging power factor are equally harmful to the power system.

How do I know my Power Factor? For consumers having installed TOD, Tri-vector Meters, Meters, depending upon the nature of instantaneous load, instantaneous power factor is displayed on consumer's meter. Consumers can also opt to install PF meters at their LT panel to measure the PF. It is advisable to monitor PF of each individual circuit / machine / plant, as may be possible, in their internal distribution network so that the "low PF section" can be easily identified and attended.

What is Power Factor improvement? Power factor improvement means minimizing drawl of reactive power from power system so as to make power factor unity. It is nothing but providing adequate compensation so that the reactive power requirement of the load is locally fulfilled instead of drawing it from the power system. This means determination of adequate size / rating of capacitors to be installed at each major inductive load is necessary.

How can I improve my Power Factor? If power factor is on the lagging side it can be improved by installing capacitors of appropriate ratings and if the power factor is on leading side it can be improved by installing reactors/ removing excess capacitors of appropriate ratings.

Forum of Regulators (FOR), has recommended kVAh billing. FOR in its report on "Metering Issues" published in August 2009 has stated that kVAh billing is the new trend in electricity billing, which is adopted worldwide.



NEED OF IMPROVING POWER FACTOR:

- a) To avoid the penalty imposed by distribution utilities for poor power factors.
- b) Now utilities have been started the billing in KVAH instead of KWH, so improved power factor helps in reducing our electricity charges.
- c) Reducing demand
- d) Increased voltage level in electrical system due to which efficiency level of motor gets better as well as life span also gets increased.

When the system is loaded lightly, the voltage increases, increasing the magnetization current demand of the machine.

<https://www.electrical-technology.com/2019/05/Causes-and-Disadvantages-of-Low-Power-Factor.html>

Disadvantages of Low Power Factor

These are the main **disadvantages of Low Power Factor** in our electrical system.

- Large kVA rating and size of Electrical equipments
- Large conductor size and so higher cost of transmission line
- High Transmission loss hence poor efficiency
- Poor Voltage regulation
- Penalties imposed by power utility companies (DISCOM)

The improved power factor will further reduce spending on power purchase, creating the opportunity to lower tariffs.

If power factor not maintained by the consumer the DISCOMS will be penalized and it is burden on the department also. At the same time DISCOMS will also levy capacitor surcharges to the consumer to overcome the problem. Hence it is the duty of the consumer to maintain the power factor to unity.

This forum is of the opinion that the department followed the guidelines issued by Hon'ble APERC after completion of about 2years' time period. Consumers are aware of the said programming as mentioned in **Chapter IX Para 398 in page No. 247 of 375 in Tariff for Retail sale of Electricity during F.Y. 2019-20 issued by Hon'ble APERC.**

The contention of the complainant that he received huge amount of CC bill during not used period i.e., from May'2022 to August' 2022.

Complainant can be given an opportunity to prove his contention. Hence interim orders were issued on some conditions that :

“Complainant is directed to pay an amount of Rs.3,46,000/- (Rupees three lakhs and forty six thousand only) out of arrears amount of 6,91,743/- within one week from the date of receipt of this order. On payment of the above said amount, Respondents are directed to not to disconnect the service connection SC No. 3231311002796 during the pendency of the complaint before this forum for non-payment of the balance disputed CC bill amount issued for the month of August’2022”. The complainant is advised to pay regular CC bills.

This forum is of the opinion that the complainant not maintained the capacitors of required rating to install to his unit. He installed the over rated capacitors to his unit and kept the capacitors in ‘ON’ condition during not used period during 5/2022. Hence he received huge amount of CC bill for the said service during the disputed period. As per the monthly bill information it is observed that the PF gradually increased from lead to unity and hence he received CC bills correctly after the month of October’2022 and November’2022. As per the complainant request the existing meter was also tested by the department on 5.8.2022 and found satisfactory and errors are within the limits. During inspection the respondents advised the complainant to provide required rating of capacitors only and also informed to the complainant not to install the capacitors of over rated to their unit and also advised to provide automated capacitors to avoid such problems in future.

In this case the complainant is known about the un-blocking of Kvarh lead in the meter and also about the software updation in the meter, as the complainant’s representative signed on the inspection notes served by the M&P wing on 24.6.2022 . Hence the complainant is more aware of the power factor, which reflects on the billing system. Hence there are no points found in this case to resolve the grievance .The respondents are directed to collect the arrears of CC bill amount against the service SC No. 3231311002796 after deducting the amount already paid by the complainant as per the interim orders passed by this forum.

Hence there are no grounds to interfere with the revision of bill for the disputed period for SC No.3231311002796. Hence complaint is liable to be dismissed.

Accordingly, the C.G.No.59/2022-23/Nellore Circle is disposed off. The point answered accordingly.

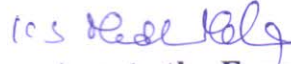
7. In the result the complaint is dismissed.

Member (Technical)

Independent Member

Chairperson (I/c)

Forwarded By Order



Secretary to the Forum

This order is passed on this, the day of 14th December'2022

If aggrieved by this order, the Complainant may represent to the Vidyut Ombudsman, Andhra Pradesh, 3rd Floor, Sri Manjunatha Technical Services, Plot No:38, Adjacent to Kesineni Admin Office, Sri Ramachandra Nagar, Mahanadu Road, Vijayawada-520008, within 30 days from the date of receipt of this order.

To

The Complainant

The Respondents

Copy to the Nodal Officer (Chief General Manager (O&M)/ Operation)/ CGRF/ APSPDCL/ Tirupati.

Copy Submitted to the Vidyut Ombudsman, Andhra Pradesh , 3rd Floor, Sri Manjunatha Technical Services, Plot No:38, Adjacent to Kesineni Admin Office, Sri Ramachandra Nagar, Mahanadu Road, Vijayawada-520008.

Copy Submitted to the Secretary, APERC,11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Lakdikapool, Hyderabad- 500 004.