



## **TAMIL NADU ELECTRICITY OMBUDSMAN**

- A, Rukmini Lakshmipathy Salai, (Marshall Road), Egmore, Chennai – 600 008.

Phone : ++91-044-2841 1376 / 2841 1378/ 2841 1379 Fax : ++91-044-2841 1377

Email : tnerc@nic.in Web site : www.tneo.gov.in

**BEFORE THE TAMIL NADU ELECTRICITY OMBUDSMAN, CHENNAI**

**Present : Thiru. A. Dharmaraj, Electricity Ombudsman**

**Appeal Petition No. 25 of 2012**

M/s. Velatal Spinning Mills Pvt Ltd  
115, Tiruchengodu Road, Pallipalayam  
Erode

..... Appellant  
(Rep by party in person)

Vs

Superintending Engineer  
Mettur Electricity Distribution circle  
TANGEDCO  
Mettur Dam

..... Respondent  
(Rep. by Tmt S. Mallika/DFC)

**Date of hearing : 17-8-2012**

**Date of Order : 15.11.2012**

The above appeal petition No. AP 25 of 2012 came up for final hearing before the Electricity Ombudsman on 17-8-2012. Upon perusing the above petition, the Counter affidavit and after hearing both sides the following order is issued by the Electricity Ombudsman.

## **ORDER**

**1. Prayer of the Appellant:**

The Appellant prayed that in the deemed demand calculation, the actual supply availability time and power factor of 0.95 may be taken instead of 24 hrs and the recorded power factor of the month respectively. He also prayed that the respondent maybe directed to rework the CC bills based on the above deemed demand calculations.

**2. Facts of the Case:**

M/s. Velatal Spinning Mills (P) Ltd is engaged in manufacture of yarn at its factory with a sanctioned demand of 1400 KVA. They, obtained HTSC No. 65 which falls within the jurisdiction of Superintending Engineer / Mettur Electricity Distribution Circle. The company has wind Generator of 4.81 MW capacity and the energy generated is wheeled to their HT service connection at Mettur Electricity Distribution Circle. As the power supply availability time was reduced to 12 hrs a day the Appellant filed a petition to CGRF of Mettur Electricity Distribution Circle, to give direction to the licensee to calculate the deemed demand based on power available time and a power factor of 0.95. The CGRF of Mettur Electricity Distribution Circle held that the deemed demand allowed for the wind units adjusted during 12/10 & 01/2011 is in order. Aggrieved over the above order, the Appellant filed the appeal petition to Electricity Ombudsman for redressal of his grievance.

**3. Contentions of the Appellant :**

The Appellant has contended the following in his appeal petitions.

- i) The Company has Wind Electric Generator of 4.81 MW and the energy Generated is Wheeled to its factory HT SC No. 65 of Mettur Electricity Distribution Circle.
- ii) TANGEDCO has implemented R & C measures from 01.11.2008. TANGEDCO has exempted CPPs from power cut and issued the formula in Memo:CE / Comml / EE / DSM / AEE / PMM/F. Power cut / D.28/2008, dt.17.11.2008 for calculation of energy and Demand Quota. The above formula was approved by the Hon'ble TNERC in MP 42 of 2008. The same was reiterated in SMP 1 of 2009 with respect to wind captive users by Honorable commission.

The formula used for calculation of the demand based on energy supplied for the month by CPP is as follows :

$$= \frac{\text{Energy supplied by CPP in a month}}{\text{No. of days in the month} \times 24 \text{ hours} \times \text{P.F. } 0.95}$$

In the formula, 24 hours is based on uninterrupted supply is available daily and 0.95 P.F. has to be taken for conversion of KW to KVA.

- iii) Whereas for the past 6 months, there is scheduled and unscheduled load shedding, tripping, maintenance and breakdown, etc. The power available time is reduced to 12 hrs / day (average) and only for 2 hrs during peak hours (against 4 hrs taken in the calculation).

- iv) The formula specifies a PF 0.95, whereas TANGEDCO has taken recorded PF, which is contrary to the formula approved by Hon'ble TNERC.
- v) In this circumstance, if the above formula is applied without taking into consideration the supply available time and P.F, then the appellant are charged / liable to pay excess demand charges.
- vi) The appellant's company has paid the following amount under protest as excess demand charges.

<b>Month</b>	<b>Normal Hours</b>	<b>Peak Hours</b>
Jan'12	--	196499.40
Feb'12	4434.60	131690.40
Mar'12	93732.60	146509.20
April'12	114789.60	59427.00
	-----	-----
	212956.80	534126.00
	-----	-----

(vii) The appellant's company raised the issue before the CGRF by its letter dt.10.03.2012, a meeting of Forum was held on 26.04.2012, and order issued on 26.04.2012. The Forum in its order has not taken the views expressed by the appellant with regard to supply available time and also power factor for calculation of Deemed Demand.

(viii) The Forum has relied upon the Honorable TNERC Order in MP.32 of 2010 which was based on the issue of whether injected unit or consumed units to be taken for calculation of deemed demand.

**4. Contention of the Respondent :**

The respondent has furnished the following in the counter.

- i) For the HT SC No. 65 M/s. Velattal Spinning Mills Pvt. Ltd., the deemed demand allowed for the actual wind units adjusted during the

month of 12/2010 & 01/2011 is in order as per the Hon'ble TNERCs order dated 28.12.2011 in M.P. No. 32 & 41 of 2010.

ii) It is found in the order of M.P. No.32 of 2010 and IA 1 of 2010. it is stated by the Honourable TNERC that the procedure adopted is as follows:-

- The entire energy injected into the system is measured at the generating end and informed to the circle in the consumption end.
- The actual consumption is measured in the consumption end
- The unutilized energy is then reported back to the generating end for keeping it at bank
- The generated energy in a month along with the banked energy is at the disposal of the consumer for drawal subsequently as per the applicable orders

iii) In the Para 14.11 the Commission has stated that the impugned clarification dated 25.06.2010 issued by TANGEDCO is in order.

iv) Further there is no specific order in TNERC orders for computing deemed demand by taking into account the Power Factor 0.95 and the duration of availability of power.

**5. Hearing held by the Electricity Ombudsman :**

A hearing was held before the Electricity Ombudsman on 17-8-2012 to enable the Appellant and the Respondents to putforth their views in person.

**6. Argument of the Appellant :**

6.1 The Appellant himself presented the case. He reiterated the contents of the Appeal petition. He argued that previously there was load shedding for 2 hrs or 3 hrs. But now there was about 12 to 14 hrs load shedding. Hence, the calculation of deemed demand done based on 24 hrs supply availability will not reflect the correct demand and hence he argued that only the supply availability time alone could be taken for the demand calculation. He also argued that as

per licensee's circular dt.17.11.2008, the deemed demand has to be calculated using the formula given below:-

Demand supplied by CPP : Energy supplied by CPP in a month

-----  
No. of days in the month x 24 hrs x P.F. 0.95

6.2 The above formula is approved by the TNERC for use in respect of wind captive users by the TNERC in SMP 1 of 2009. But the Respondent have taken the recorded PF of respective month for calculating the deemed demand instead of 0.95 which is contrary to the formula approved by Hon'ble TNERC. Hence, he argued that the CC bill maybe revised taking into account of the actual supply available time and 0.95 as power factor in the calculation of deemed demand.

#### **7. Argument of the Respondent:**

7.1 The Respondent was represented by Tmt S. Mallika, DFC of Mettur Electricity Distribution Circle. She reiterated the contents of the Counter.

7.2 She argued that the normal procedure is to take the actual power factor recorded in the month for arriving the deemed demand and hence the Respondent has adopted the same. Further, she also informed that they have calculated the deemed demand as per their head quarters direction.

#### **8. Written Argument of the Respondent :**

The Superintending Engineer also furnished a copy of their Head Quarters instruction in this regard(Lr,No,CFC/FC/DFC/AS3/D.No.64/11 dt. 13.9.2012), wherein the following would be relevant:-

- i) It is stated that even though, the base energy had been arrived based on their early consumption wherein there was no power cut (i.e) 24 hrs power supply without interruption, the energy

quota shall not be reworked proportionately based on the power available time and the excess energy charges shall not be arrived based on the power available time(para 16).

- ii) In respect of wind energy captive users adjustment of energy is made on three slot basis, on slot to slot basis as per TNERC regulations. The contention of the petitioner that the petitioner cannot use its wind energy during load shedding hours is false, since the appellant is permitted to adjust the unadjusted units of the evening peak hour against the morning peak hour consumption vis-versa, when its generation is low and also the peak and normal generation shall be adjusted against lower slot consumption as per Wind Energy Order No. 1 of 2009 and also as per Wind Energy Order No. 6 dt.31.07.2012. Hence, the contention of the petitioner that if calculation is based on drawal (which is prevented) they are compelled to pay excess demand and energy charges is misinterpreting one (para 17).
- iii) The wind blows during summer season. The WEG generates energy, during May to September. By virtue of banking the unadjusted units are adjusted at a later date that too when the Distribution licensee is experiencing power deficit (para18).
- iv) The Tamil Nadu Electricity Distribution Code Section 38 describes as follows:

**“ 38. RESTRICTIONS ON USE OF ELECTRICITY**

The consumer shall curtail, stagger, restrict, regulate or altogether cease to use electricity when so directed by the Licensee, if the power position or any other emergency in the Licensee's power system or as per the directives of SLDC /SSLDC warrants such a course of action. The Licensee shall not be responsible for any loss or inconvenience caused to the consumer as a result of such curtailment, staggering, restriction, regulation or cessation of use of electricity. Notwithstanding anything contained in any agreement/undertaking executed by a consumer with the Licensee or in the tariff applicable to him, the consumer shall restrict the use of electricity in terms of his/her maximum demand and /or energy consumption in the manner and for the period as may be specified in any order that may be made by the Licensee on the instructions of State Government or the Commission. Form the above it could be observed that the Licensee shall not be responsible for any loss or inconvenience caused to the consumer as a result of such curtailment, staggering, restriction, regulation or cessation of use of electricity (para 19).

- v) The Hon'ble Commission has made an amendment to the Supply Code Regulation – Sub – regulation 13 added vide Notification No. Tamil Nadu Electricity Regulatory Commission/SC/7-11 dated 15.12.2008 with effect from 28.11.2008 as follows:

*“The maximum demand charges for HT supply shall be based on the actual recorded demand at the point of supply or at 90% of the*

*demand quota as fixed from time to time through restriction and control measures whichever is higher-----”(para 21).*

Hence, the consumer is given relief in the payment of MD charges to the extent of demand cut (para22).

**9. Rejoinder to the Written argument of the Respondent :**

In letter dt.3.10.2012 the appellant has furnished his rejoinder for the written argument of the respondent. The contentions of the appellant in the rejoinder are furnished below :

*“(i) 1. In para 17, Respdent has claimed :*

*“The contention of the petition that the petitioner cannot use its wind energy during load shedding hours is false, since the appellant is permitted to adjust the unadjusted units of the evening peak hour against the morning peak hour consumption vis – versa, when its generation is low and also the a peak and normal generation shall be adjusted against lower slot consumption as per Wind Energy order No.1 of 2009 and also as per wind energy order no. 6 dt. 31.7.2012.*

*a) Appellant cannot understand how a consumer can consume power, when there is load shedding.*

*b) When to use the energy generated in the other slots namely morning peak, normal and lower slot as claimed by respondent.*

*c) Then respondent need not have restored to load shedding in the state if power can be consumed when there is load shedding.*

*d) Due to load shedding, it may be further be noted, the petitioner has surplus banking which were sold to board as petitioner cannot use its wind energy due to load shedding done by respondent.*

<i>3/2009</i>	<i>-</i>	<i>1241932 Units</i>	<i>3/2010</i>	<i>-</i>	<i>12,45,227 units</i>
<i>3/2009</i>	<i>-</i>	<i>2,29,630 Units</i>	<i>3/2012</i>	<i>-</i>	<i>25,33,444 units</i>

*This para 17 does not speak of calculation of deemed demand based on power available time.*

(ii) Further respondent claims that appellants is permitted to adjust the unadjusted units of the evening peak hour against the morning peak hour consumption vis-versa, when its generation is low and also the peak and normal generation shall be adjusted against lower slot consumption as per Wind Energy order No. 1 of 2009 and also as per Wind Energy Order no. 6, dt.31.7.2012, this only makes the petitioner to squeeze his consumption during power available time which in turn increases the maximum demand. Here again the petitioner has not exceeded the sanctioned demand has to appreciated.

*Here again this does not speak of calculation of deemed demand based on power available time.*

(iii) In para 18, the respondent has advocated the normal claim of loss to the board. This does not have any relevance to the issue in question. The petitioner humbly state the same formula is adopted in wind season also and due to load shedding, petitioner is unable to use the energy generated in the same month (wind season) and is forced to bank the energy.

The appellant has not exceeded the energy quota during last 5 years during which period there is R&C for HT consumers were in force.

Whereas the petitioner has paid excess demand charges as below :

Month & Year	Power failure time in hrs	Amount	Month & Year	Power failure time in hrs	Amount	Month & Year	Power failure time in hrs	Amount
12/08	48.0	45144.00	3/10	157.0	145440.0	09/11	29.00	64786.80
05/09	138.0	127996.83	06/10	303.0	280991.80	10/11	65.00	99112.00
06/09	43.0	40227.83	07/10	135.0	126738.60	11/11	103.06	150859.80
08/09	351.0	324990.00	08/10	225.0	208936.20	12/11	97.26	46105.80
09/09	165.0	152190.00	10/10		28666.20	01/12	124.58	196499.40
10/09	270.0	249390.00	04/11	82.0	65549.40	02/12	239.53	136125.00
11/09	416.0	385470.00	05/11	156.0	182135.33	03/12	304.25	240241.80
12/09	77.0	71151.00	06/11	58.0	52273.80	04/12	306.00	174216.60
01/10	146.0	135192.00	07/11	77.0	17845.80	06/12	56.57	1416.00
02/10	187.0	172968.00	08/11	12.80	100237.20	08/12		95586.00
					Total			5598521.80

*This clearly shows the formula for calculation of deemed demand based on consumed energy has to be based on energy available time.*

*(iv) The Respondent has brought in TNERC Distribution Code section 38 in his argument.*

*The above section says “Notwithstanding anything contained in any agreement undertaking executed by the consumer with the licensee or in the tariff applicable to him, the consumer shall restrict the use of electricity in terms of his/her maximum demand and / or energy consumption in the manner and for the period as may be specified in any order that may be made by the licensee on the instruction of State Government or the Commission.”*

The Government in Lr.MS No.8 dt.29.2.2012 has ordered load shedding of 4 hours in day time. (No load shedding in night ) Whereas the load shedding is 14 hrs / day.

**10. Findings of the Electricity Ombudsman :**

I have heard the arguments of both the Appellant and the Respondent. On a careful consideration of the submission of the both sides, I find the following are the issues to be decided.

- i) For deemed demand calculation, whether the power factor is to be taken as 0.95 (or) actual pf recorded in that billing month ?
- ii) For arriving the deemed demand whether the actual supply available time has to be taken (or) 24 hrs time has to be considered?



- (iii) The actual energy availed by consumers from TNEB }  
} A-B=C
- (iv) 60% energy on C ( Cx 60/100) = D
- (v) The quota fixed for energy = B+D

**Fixing of Demand Quota**

- (i) The base demand consumption as illustrated in }  
working instructions dated 1.11.2008. } E
- (ii) In that the calculated demand supplied for the energy }  
for the month by CPP } F

$$F = \frac{\text{Energy supplied by CPP in a month}}{\text{No. of days in the month} \times 24 \text{ hours} \times P.F 0.95}$$

- (iii) The actual demand availed by consumer from TNEB }  
} E-F=G
- (iv) 60% demand of G(G x 60/100) }  
} H
- (v) The demand quota fixed }  
} F+H

*(Calculation of demand supplied by generator may be worked out on par with calculation made for wheeling of power to the captive consumers as communicated in CE/PPP memo dated 6.11.2007 and subsequent amendment thereof). ”*

11.5 On a careful reading of the above para 4 of the circular, it is seen that the formula given in the circular is to arrive at the demand quota of the CPP portion taking into consideration of the CPP energy supplied during the period taken for arriving at the base energy. In the same para for calculation of the demand supplied by the Generator, it has been mentioned that the calculation made for wheeling of power to the captive consumers as communicated in CE/PPP memo dt 6.11.2007 and subsequent amendments has to be considered. The licensee has stated that in CE/PPP memo dt.6.11.2007 it has been stated “Demand

Charges shall be computed for the captive users as per the example worked out in clause 5.22.4 in order No. 2 dt 15.5.2006.

11.6 The para 5.22.4 (c) of Hon'ble TNERC's order No. 2 dt. 15.5.2006 is reproduced below:-

**“c) Deemed Demand Charges:** *The percentage of deemed demand supplied by the licensee, for typical cases of injection and drawl and based on the loss factors as above is arrived at as below:-*

<i>Cases</i>	<i>Loss factor { (100 - %loss)/100 }</i>	<i>% of deemed units supplied at generator end {51/Loss factor }</i>	<i>Deemed demand supplied by generator {(3)/pf }</i>	<i>% of deemed demand supplied by the licensee {100-(4) }</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>
<i>Injection at 11/22 KV and drawal at 11/22 KV</i>	<i>0.90</i>	<i>51/0.90 = 56.667</i>	<i>56.667/0.9 = 62.96</i>	<i>100-62.96 = 37.04</i>
<i>Injection at 33 KV and drawal at 22/11 KV</i>	<i>0.9275</i>	<i>51/0.9275 = 54.987</i>	<i>54.987/0.9 = 61.10</i>	<i>100-61.10 = 38.90</i>
<i>Injection at 110 KV and drawal at 22/11 KV</i>	<i>0.9375</i>	<i>51/0.9375 = 54.40</i>	<i>54.40/0.9 = 60.44</i>	<i>100-60.44 = 39.56</i>
<i>Injection at 110 KV and drawal at 33 KV</i>	<i>0.965</i>	<i>51/0.965 = 52.850</i>	<i>52.850/0.9 = 58.72</i>	<i>100-58.72 = 41.28</i>
<i>Injection at 110 KV and drawal at 110 KV</i>	<i>0.975</i>	<i>51/0.975 = 52.308</i>	<i>52.308/0.9 = 58.12</i>	<i>100-58.12 = 41.88</i>
<i>Injection at 230 KV and drawal at 22/11 KV</i>	<i>0.945</i>	<i>51/0.945 = 53.968</i>	<i>53.968/0.9 = 59.96</i>	<i>100-59.96 = 40.04</i>
<i>Injection at 230 KV and drawal at 33 KV</i>	<i>0.9725</i>	<i>51/0.9725 = 52.442</i>	<i>52.442/0.9 = 58.27</i>	<i>100-58.27 = 41.73</i>
<i>Injection at 230 KV and drawal at 110 KV</i>	<i>0.9825</i>	<i>51/0.908 = 51.908</i>	<i>51.908/0.9 = 57.68</i>	<i>100-57.68 = 42.32</i>
<i>Injection at 230 KV and drawal at 230 KV</i>	<i>0.99</i>	<i>51/0.99 = 51.515</i>	<i>51.515/0.9 = 57.24</i>	<i>100-57.24 = 42.76</i>

*The billing of monthly consumption is segregated into two parts:*

- (i) Quantum of energy supplied by the generator at open access user end and;*
- (ii) Quantum of energy supplied by Distribution licensee to open access user.*

The demand charges in a billing month are to be arrived at as detailed below;

- (a) The maximum demand recorded in a month shall be segregated into demand supplied by the generator and the demand supplied by the licensee taking into account the actual energy consumed in units, the actual energy in units supplied by the generator and average power factor maintained at the consumption point in the billing month.
- (b) The demand charges payable by the open access customer will be calculated as below ”

Case 1 :

Injection Voltage	110 KV
Drawal Voltage	33 KV
Percentage of deemed as per the table	= 41.28
Sanctioned Demand	1000 KV <sub>a</sub>
Recorded Demand	855 KV <sub>a</sub>
Units consumed	6500000 units
Power Factor	0.95
Units supplied by generator (at consumption point)	= 500000 units
Demand supplied by the Generator	= 500000/720*0.95 = 659.72 KV <sub>a</sub>
Demand supplied by the licensee	= 855-659.72 = 195.28 KV <sub>a</sub>
Billable demand supplied by the licensee (at 90% of the sanctioned demand )	= 900-659.72 = 240.28
Demand charges payable	= (659.72*0.4128*300)+240.28*300) = 81699.72+72084 = 153783.72

Case 2 :

Injection Voltage	230 KV
Drawal Voltage	22/11 KV
Percentage of deemed as per the table	= 40.04
Sanction Demand	1000 KV <sub>a</sub>
Recorded Demand	950 KV <sub>a</sub>
Units consumed	700000 units
Power Factor	0.92
Units supplied by generator(at consumption point)	: 700000 units

$$\begin{aligned}
\text{Demand supplied by the generator} &= 700000/720*0.92 = 894.44 \text{ Kva} \\
\text{Demand supplied by the licensee} &= 950-894.44 = 55.56 \text{ KVa} \\
\text{Billable demand supplied by licensee} &= 950-894.44 = 55.56 \text{ KVa} \\
\text{Demand charges payable} &= (894.44*0.4004*300)+55.56*300) \\
&= 107440.13+16668 = 124108.13''
\end{aligned}$$

11.7 On a careful reading of para 5.2.2.4(c) (a) it is noted that maximum demand recorded in a month shall be segregated into demand supplied by the Generator and the demand supplied by the licensee taking into account the actual energy consumed in units, the actual energy in units supplied by the Generator and the average power factor maintained at the consumption point in the billing month. Here it has been stated that for arriving the demand, the energy and the average power factor maintained has to be taken into account. In the examples also pf of 0.95 and 0.92 has been used for arriving the Demand in case 1 and case 2 respectively which shows the actual power factor has to be taken for calculation of demand supplied by the generator.

11.8 Further para 8.7.4.3 of wind tariff order No. 1 dt. 20.3.2009, is extracted below:-

“8.7.4.3 The example below illustrates the case. The demand charges payable by the consumer on open access will be calculated as below:-

<i>Total generated units consumed by the consumer on open access divided by (30x24xactual PF recorded during the billing month)</i>	<i>A</i>
<i>Recorded demand (or) 90% of sanctioned demand, whichever is higher</i>	<i>B</i>
<i>The demand supplied by the Licensee (B-A)</i>	<i>C</i>
<i>The demand charges payable by consumer on open access = [A x(80.39%) of applicable demand charges + (C x applicable demand charges)]</i>	

*At current rate Demand Charges payable (Rs) = [A x 0.8039 x 300) + (C x 300)]”*

11.9 It is noted from the above para that the demand supplied by the wind energy is calculated as below:-

$$= \frac{\text{Total generated units consumed by the consumer on open access}}{30 \times 24 \times \text{actual PF recorded during the billing month}}$$

11.10 As per the above formula given in wind tariff order No. 1 dt. 20-3-2009, the actual power factor recorded during the billing month has to be taken for arriving the demand supplied.

11.11 In view of the reasons discussed in para 11.7 & 11.10, I am of the view that the average power factor recorded during the billing month has to be taken for arriving the demand supplied by the wind generators.

## **12. Findings on second issue:**

12.1 The Appellant argued that the power availability time was reduced due to scheduled and unscheduled power cut. The power available time was reduced to 12 hrs per day and 2 hrs during peak hours (against 4 hr taken for calculation), due to the above scheduled and unscheduled power cuts and hence argued that the power available time alone taken for arriving the demand supplied by the Generators. He also argued that the forum has relied on the orders of Hon'ble TNERC's Order in MP 32 of 2010 which was based on the issue whether injected unit or consumed units to be taken up for calculation of deemed demand. But the issue here is calculation of deemed demand based on power available time.

12.2 The Appellant has also argued that he was not permitted to utilize the wind energy supplied due to load shedding. As the units consumed alone is taken for arriving the deemed demand, his deemed demand supplied by wind generator is less and hence he has to pay excess demand charges.

12.3 The Respondent argued that as per the order of Hon'ble TNERC in MP No. 32 of 2010 the energy consumed alone could be taken for arriving the deemed demand.

12.4 The Respondent argued that in respect of wind energy captive uses, adjustment of energy is made on three slot basis. The contention of the petitioner that the petitioner cannot use its wind energy during load shedding hours is false since the Appellant is permitted to adjust the unadjusted units of evening peak hour against the morning peak hour consumption vice versa. Further, as per wind energy tariff order No.1 of 2009, the peak and normal hour generation maybe adjusted against lower slot consumption. Hence, the Respondent argued that the contention of the Appellant that if calculation is based on drawal they are compelled to pay excess demand charges and excess energy charges is misinterpretation only. The Respondent also argued that by virtue of banking facility, the unadjusted unit are adjusted at a later date when the licensee is purchasing the power at a higher cost.

12.5 Further, he has also cited, Regulation 38 of the Distribution Code and argued that licensee shall not be responsible for any loss or inconvenience caused to the consumer as a result of curtailing, staggering, restriction, regulation or cessation of use of electricity. The respondent also cited

Regulation 5 (13) of Supply Code and informed that the maximum demand charges for HT industries shall be based on the actual recorded demand at the point of supply or at 90% of the demand quota fixed from time to time through restriction and control measures whichever is higher and argued that consumer is given relief in payment of MD charges.

12.6 With regard to the argument of the respondent that adjustment of unadjusted wind generation units in other slots, the appellant argued that this only makes the petitioner to squeeze his consumption during power available time which in turn increases the maximum demand. Further, he has also stated that due to load shedding the petitioner is unable to use the energy generated in the same month and is forced to bank the energy.

12.7. With regard to the contention of the respondent that licensee is not responsible for any loss or inconvenience caused as a result of R&C measures, as per regulation 38 of the Distribution Code, the appellant informed that the R&C measures shall conform to the instruction's of State Govt. or the Commission. The State Govt. in G.O M.S No.8, dt.29.2.2012 has ordered load shedding of 4 hours in day time whereas the load shedding is 14 hours.

12.8 As the Respondent has cited, Hon'ble TNERC Order in MP 32 of 2010, the para 14.11 of the above order of the Commission dt 28-12-2011 is extracted below:-

*"14.11 The energy proposed for captive users has been mentioned in the order of the Commission. There could be various scenarios. During off season, the generated energy may not be adequate and therefore the captive consumer could draw from the bank and consume. Even during the season if the*

*generated energy is not adequate, the captive consumer could draw from the bank. Therefore, consumption has to be the basis for determining the quota. To this extent, the clarification could be deemed to modify the circular of TNEB dated 17-11-2008. The memo of 17-11-2008 stipulated monthly base energy consumption as (A). The energy supplied by the captive generator is termed as (B). Since A is measured against consumption, (B) also should be measured against consumption. The Commission, therefore, decides that the impugned clarification dated 25-6-2010 issued by TANGEDCO is in order. It is but fair that the clarification should have effect from 25-6-2010. In this approach, the orders of the Commission as contained in Tariff Order for wind energy in Order No. 1 of 2009 dt 20.3.2009 and various orders issued for REC measures have to be harmoniously constructed and implemented.”*

12.9 It is noted from the above orders of Commission that the clarification issued by the licensee on 25-6-2010 is to be followed from 25.6.2010. As per the above circular, the deemed demand will be allowed only based on the actual units adjusted and not based on the energy supplied or injected. Here the Appellant is not disputing the above, he is disputing the adoption of 24 hrs for arriving the demand instead of actual time of supply.

12.10 The Respondent cited Regulation 38 of the Distribution code, which is extracted below :-

**“ 38. RESTRICTIONS ON USE OF ELECTRICITY :**

*The consumer shall curtail, stagger, restrict, regulate or altogether cease to use electricity when so directed by the Licensee, if the power position or any other emergency in the Licensee’s power system or as per the directives of SLDC/ SSLDC warrants such a course of action. The Licensee shall not be responsible for any loss or inconvenience caused to the consumer as a result of such curtailment, staggering, restriction, regulation or cessation of use of electricity. Notwithstanding anything contained in any agreement/ undertaking executed by*

*a consumer with the Licensee or in the tariff applicable to him, the consumer shall restrict the use of electricity in terms of his/her maximum demand and/ or energy consumption in the manner and for the period as may be specified in any order that may be made by the Licensee on the instructions of State Government or the Commission.*

12.11 On a plain reading of the above Regulation, it is noted that the consumer shall curtail, stagger, restrict, regulate and altogether cease to use electricity when so directed by the licensee if the power position or any other emergency in the licensee's power supplies or as per the directives of SLDC /SSLDC warrant such a course to action. The licensee shall not be responsible for any loss or inconvenience caused to the consumer as a result of such curtailment staggering, restriction, regulation or cessation of use of electricity. The R&C Measures like percentage of power cut on Demand & Energy, peak hour restriction, power holidays and load shedding period are enforced considering the overall requirement and availability of the supply position. Besides, the above, depending upon the grid condition, further load shedding may also have to be done as per the instruction of SLDDC / SSLDC to maintain the grid. The consumer can not claim any inconvenience or loss for such load shedding also. But, the load shedding has been covered in regulation 15(6) of Distribution Code and is to be exercised only under exigent circumstances and not frequently.

12.12 As the main point to be decided in this case is the calculation of deemed demand supplied by wind generators, the tariff order No. 1 of 2009 dt.20.3.2009 which is valid up to 31.7.2012 has to be referred for arriving the conclusion.

12.13 In para 8.7.4.3 of the said wind tariff order, calculation of the demand charges has been discussed. The above para is extracted below :

“8.7.4.3 The example below illustrates the case. The demand charges payable by the consumer on open access will be calculated as below:-

Total generated units consumed by the consumer on open access  
divided by (30x24xactual PF recorded during the billing month) A

Recorded demand (or) 90% of sanctioned demand, whichever  
is higher B

The demand supplied by the Licensee (B-A) C

The demand charges payable by consumer on open access =  
[A x(80.39%) of applicable demand charges + (C x applicable demand charges)

At current rate Demand Charges payable (Rs) = [A x 0.8039 x 300) + (C x 300)”

12.14 It is noted from the above para, that the demand supplied, to the open access consumer by the wind generator has to be calculated by utilizing the following formula only.

Total generated units consumed by the consumer in open access  
-----  
30 x 24 x actual power factor recorded in the billing month.

12.15 In the above formula for arriving the demand in respect of power factor, the actual power factor recorded during the billing month was taken, whereas for number of hours & days there is no such definition was provided instead 24 hours and 30 days were specified.

12.16 In this regard it is to be noted that wind energy generation itself is infirm and the generation may not be uniform throughout the month and there may be nil generation period in a particular day or there may not be any generation on

some days also. Further, wind generation from the same generator may be supplied to various HT industries and the utilization also differ from industries to industry (ie) some industries may work round the clock and some may work in one or two shifts and the formula would have been arrived by taking into consideration of the above only. The formula is same whether the industry works round the clock or one shift or two shifts (ie) irrespective of the utilization period.

12.17 The Commission in its order No.2 dt.15.5.2006 order on a Determination of Transmission charges, Wheeling charges, cross subsidy surcharge and additional surcharge has observed the following in para 5.22.4(b) x x x x x x.

“ x x x x x x x x There are 2880 time blocks of 15 minutes intervals in a billing month. It is not feasible to segregate precisely the quantum of demand supplied in each time block in the billing month to the open access user by the generator and by the licensee distinctly. x x x x x x x x

x x x x Till a mechanism is put into place to ascertain the relation between the demand generated in each of the 2880 fifteen minutes time blocks and the demand recorded at the consumer end in the related time blocks, a reasonable approximation has to be followed to arrive at the demand supplied by the generator. x x x x x x x x ”

12.18 The Commission has also used the following formula for calculating the Demand supplied by the generator in the illustration specified in para 5.22.4(c) of order No.2 , dt.15.5.2006.

Demand supplied by the generator : 
$$\frac{\text{Units supplied by the generator(at consumption point)}}{720 \times \text{actual power factor}}$$

(here, the 720 represents 30 x 24 hrs (ie) 30 days and 24 hrs per day)

12.19 As wind energy generators are having banking facility, the unutilized energy due to load shedding will be utilized in some other period. Further, as there is a provision to encash the surplus banked energy available as on the last day of March of every year, the energy and unadjusted energy will be encashed by the Generators.

12.20 In para 8.2.2 of the wind tariff order 1 of 2009 dt 20.3.2009 it has been ordered that the unutilized energy at the end of the financial year may be encashed at the rate of 75% of the relevant purchase tariff. But the Commission has ordered that the encashment rate for the unutilized banked energy is full value of the relevant purchase rate as and when the Distribution licensee enforces restriction and control measures for restricting the consumption of wind energy generator. Hence, the Commission has given a higher rate for the banked units when the consumer is prevented from consuming the wind energy generated due to restriction and control measures. But there is no separate formula in the above order for calculation of deemed demand during R&C period based on supply availability period.

12.21 In view of the reasons given in forgoing paras, I am of the opinion that the formula mentioned in para 8.7.4.3 of wind tariff order No. 1 dt 20.3.2009 for calculation of demand has to be adopted for the arriving demand supplied by the wind generator. In the above formula, there is no provision for adoption of supply availability period to calculate the deemed demand supplied by the wind generator.

**13. Conclusion:**

In view of my findings in para 11 & 12 above, I am unable to interfere with the order of CGRF of Mettur Electricity Distribution Circle.

With the above findings the Appeal Petition No. 25 of 2012 is disposed off by the Electricity Ombudsman. No costs.

**(A. Dharmaraj)**  
Electricity Ombudsman

To

1) M/s. Velatal Spinning Mills Pvt Ltd  
115, Tiruchengodu Road,  
Pallipalayam  
Erode

2) Superintending Engineer  
Mettur Electricity Distribution circle  
TANGEDCO  
Mettur Dam.

3) The Chairman(Superintending Engineer),  
Consumer Grievance Redressal Forum  
Mettur Electricity Distribution circle  
TANGEDCO  
Mettur Dam.

4) The Chairman & Managing Director,  
TANGEDCO,  
NPKRR Malaigai,  
144, Anna Salai,  
Chennai – 600 002.

5) The Secretary,  
Tamil Nadu Electricity Regulatory Commission  
No.19-A, Rukmini Lakshmi pathy Salai,  
Egmore,  
Chennai – 600 008.

6) The Assistant Director (Computer) - **FOR HOSTING IN THE WEBSITE.**  
Tamil Nadu Electricity Regulatory Commission  
No.19-A, Rukmini Lakshmi pathy Salai  
Egmore,  
Chennai – 600 008.